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Evaluating The Potential for Virtual Learning Environments (VLEs): A VLE for Teaching Citizenship

by John Gardner, Mary Mallon, Pamela Cowan and Miriam McArdle

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Education & Training

RESEARCH REPORT

EVALUATING THE POTENTIAL FOR VIRTUAL LEARNING ENVIRONMENTS (VLEs)

A VLE FOR TEACHING CITIZENSHIP

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EXECUTIVE SUMMARY

Preamble

This summary lists the key details and findings deriving from the report that follows. It must be borne in mind that the project was small-scale in terms of its focusing on three classes in three schools, and the work of six teachers during different parts of one school year. The extent to which the findings might be generalized to other settings, or to which policy and practice should be influenced, is therefore problematic. However it is a very detailed study and as such its findings are grounded on a solid experiential base: the experiences of normal schools, teachers and pupils in working to develop and use a VLE. Readers are therefore asked to judge the findings in terms of their strong likelihood to reflect the potential difficulties and successes that a more broadly based VLE development in schools might experience.

Project details

1. This project was commissioned by the Department of Education and was carried out by the Graduate School of Education at Queen's University Belfast in collaboration with C2k. The project proceeded in two phases: the VLE development phase (November 2002 - end of February 2003) and the teaching and learning phase (end of February - mid-June 2003). The data analysis, report writing and dissemination work was carried out from mid-June - November 2003.
2. The aim of the project was to evaluate the readiness of schools to undertake the transition to integrating e-learning into their everyday activities. A new curriculum area was identified as the focus (citizenship education) and the chosen VLE platform was Blackboard. The proposal was to develop the VLE from 'scratch' and to integrate it into a selection of school classes.
3. The Department of Education determined the main project parameters: subject area (citizenship), target group (Year 10 pupils) and a mixture of boys' and girls' post-primary schools. Three schools, one boys' and two girls' high schools, agreed to take part in the project and in each case two participating teachers were identified by the principal.
4. The selected teachers included a teacher of English, two teachers of modern languages, a geography teacher, an art teacher and a careers teacher. The two modern languages teachers were in separate schools. The gender breakdown was four women and two men.
5. The schools offered classes of pupils that were broadly consistent in levels of academic performance within their own group. They provided a project mix comprising one each of low, moderate to high and high academic performance classes. The class sizes were 13, 18 and 14 pupils respectively.

Developing a scheme of work and its resources

6. It was decided early in the project to design and develop a common scheme of work for the project classes on the sub-themes of Children in Slavery, Children in Conflict and Trafficking of Children. It was considered important to ensure that the scheme allowed the teachers the flexibility to organize and manage the unit of work in a way that met the needs of their pupils.
7. Once the target curriculum areas were identified, it became evident that the vast quantity of high quality resource material available on the Internet required the teachers to be selective in what they felt was appropriate to the age and ability of their pupils.
8. Suggestions for lesson planning came from all of the teachers but those with more teaching experience were more confident and clear about what they hoped to achieve, and this helped the group as a whole. The variety of lesson approaches was much as one might expect and ranged from the use of open discussion on the generalities of the subject content to the breaking down of these generalities into specific lesson activities.

Developing a VLE

9. The experience of developing the VLE demonstrated unequivocally that the support of technical design experts, such as the C2k consultants, was necessary throughout and that considerable time and training must be afforded to teachers who wish to develop VLEs. Ensuring that good examples of how VLEs are used in schools by teachers and pupils in the teachers' own subjects or, if not available, in other subject areas across the key stages, was an important element of this training. It was also considered important to set up individual areas on the VLE for teachers and to give them sufficient time to practise navigation, creating folders and posting resource material etc. in advance of any attempt to use the system in a classroom environment.
10. The large volume of resources available created a number of structural design difficulties and the expertise of technical experts is crucial to ensure a navigable design. The identification, quality assurance and structural design processes required considerable time and effort. The vetting of materials on a common platform for use by pupils across all three schools proved to be an early problem, owing to teachers' concerns about inappropriate aspects of the content. This was resolved by controlling access using locked folders for each school.
11. Some of the resource materials were judged useful but inappropriately presented (e.g. written for adults) and had to be recast to be amenable to pupils. This was also a time-consuming process that may have to be addressed in other VLE developments where resource material is less available.
12. It was evident that the interpretation of the structural design of the VLE was different for each teacher, resulting in inconsistencies in the location of different types of resources. It was clear that the uploading of materials from different schools and teachers required to be coordinated centrally in some way (e.g. by one school acting as a lead site or through the technical support personnel).
13. The teachers felt that the Blackboard interface had many shortcomings including being overly wordy, having an inflexible menu structure and a lack of age-appropriate features such as variety in colour options, flash and other animations.
14. Right from the outset, the teachers indicated that they were concerned about their own lack of VLE skills. All of them had completed their NOF training but this did not necessarily help them to feel confident in the use of computers, the Internet or the VLE. They all developed a greater understanding of computer and VLE systems and managed to hold their own technically. However, they were modest about the extent to which they were proficient. All of them acknowledged that they could benefit from more training but not all of them were sufficiently interested to seek it or accept it, if offered.

The VLE in the classroom

15. Most of the teachers would agree that they experienced a new and positive teaching and learning environment but had serious reservations about the large amount of time and effort used to create the environment. All of them would agree that the VLE offered facilities for the pupils that significantly enhanced the curriculum area.
16. There were mixed views about whether the VLE facilitated greater pupil-controlled learning. Some argued that the pupils would never be autonomous learners while others reported that generally pupils took on full responsibility for various tasks and being much more engaged in ensuring the best quality of their own efforts. There may be a 'chicken and egg' situation here i.e. does the teachers' belief that the pupils cannot work autonomously prevent autonomous learning being fostered?
17. There was no evidence in the project that the teachers developed the ability to manage pupils' learning more effectively using a VLE. It was clear that much more familiarity with the environment (and the subject) would be required. However, they did develop familiarity with novel interaction modes (discussion boards, drop boxes, banner announcements etc). Populating and using the VLE resource base also provided many opportunities to work with image, video, audio, presentation and other conventional forms

(scanned newspaper articles, pamphlets etc) of information. Several of the teachers felt they had progressed considerably in professional development and one of the group was promoted to coordinate citizenship teaching.

18. There was no evidence of the teachers responding electronically to individual pupils' needs though lesson-based feedback was evident. This must be partly due to the fact that after-school work on the VLE was very limited. There was very limited evidence of any kind of pupil-to-teacher communication and no evidence of teacher-to-individual pupil communication via the discussion boards. If responding electronically at all, it was in the form of a message to all pupils on the discussion board (particularly in the case of requests to desist from inappropriate communications).
19. Despite a rota of 'hot-seating' being established, electronic monitoring and giving feedback to pupils on their work was unsuccessful as most of the teachers resolutely declined to give up their own time after school to respond to pupils' questions and problems. It is not clear how teachers can do this for any VLE context in the busy-ness of a school day unless time is specifically given over for it.
20. The concept of virtual learning is poorly understood and the term is perhaps unhelpful as its 'virtual-ness' might suggest that the pupils are simply left to get on with it, so to speak. Normal lesson interactions such as questions and feedback were noticeably decreased, especially in the early stages, but an effective question and feedback process was evident in at least one of the schools by the end of the teaching phase of the project. All of the teachers recognized that a different teaching approach or style was required in a VLE context but did not have the time, in this short project, to experiment in any significant way with their own teaching style.
21. The pattern of teaching approach across the project raised sufficient concern for the research team to provide a professional development session on 'blended learning'. This was felt essential to ensure that appropriate teaching approaches were not set aside simply because the pupils were engaged in a virtual learning environment. As the project progressed closer to its conclusion, the teachers seemed to recognize the importance of blending traditional teaching with the VLE activities.
22. The teachers who used a team-teaching method felt they had a distinct advantage over those who did not because the team teaching situation allowed greater flexibility and response to pupils' needs. Teachers who did not team-teach found it difficult to work cohesively and to present an organized and well planned front to pupils. Some difficulties in terms of the two teachers in each school simply communicating and collaborating were evident.
23. Although there was a broadly positive perspective on the use of VLEs as learning and teaching environments, only one teacher was strongly positive about using them in the future.

Teachers' time and access

24. Time was an issue to which the teachers returned repeatedly and with good reason. Time problems existed at all levels and in all activities related to the project: on-line activities were time consuming, there was a limited time in the school day to work on project-related needs and the duration of the project itself also limited time to complete tasks or activities.
25. The teachers experienced a degree of stress under the pressure to create the VLE and then teach with it. They were vocal on the extent to which a VLE-type of development, if it had to be developed at a school level, would cause intolerable strains on the work-life time balance.
26. The importance of planning and preparation in the success of each lesson was often mentioned by the teachers and the lack of familiarity with the subject area and with the VLE presented problems. It was clear from the beginning that it is not realistic to expect teachers to prepare their own resources for building a VLE.

27. Access problems raised their heads throughout the teaching phase though the principals and other teachers (e.g. the ICT coordinators) made extra efforts to facilitate the work and encourage compromises on bookings. Virtually the only positive comments were reserved for access from home, for those who had it. Complaints centred on slow response levels of the school networks, the timetabling of rooms, technical difficulties and the costs of linking up at home. Those with an IT technician to support classroom work had significantly fewer concerns about technical problems.
28. Though timetabled, it quickly became apparent that the short one-period model of access was very unsuitable. The speed and reliability of the school computer connections was a continuing problem, caused largely by the security systems used to ensure the machines and networks were not used inappropriately. A common problem was the system logging out users after waiting times had been exhausted in a queuing system
29. In some instances tensions arose in relation to other teachers wishing to use the computer rooms only to find that they were being used by the project. However, for the most part the project activities were facilitated by all concerned.

Classroom and on-line interactions

30. The teachers made a variety of comments with regard to the structure of the classroom and teaching environment including the unfamiliar situation of the pupils facing away from them. Some also perceived a loss of person-to-person interaction while others saw the environment as promoting one-to-one support. Most of the teachers recognized that a different style of teaching and learning was developing. There was evidence of more pupil-pupil interaction, with more opportunities than would be normal for discussion and evaluation of work, for both the better performing pupils and the 'quieter' pupils.
31. One-to-one communications between pupils tended to be with other pupils with whom they were friendly. All discussion board messages were one-to-many and sometimes attracted many-to-one responses. In the group page discussion boards, pupils could communicate only with other group members and in these areas the level of one-to-many-to-one communication was more the norm, as was the increased complexity and purposefulness of the exchanges. Communication within the group pages was task-related in almost every case unlike those in the main discussion board, which were more general and conversational. The group page environments appeared to provide an element of security for those pupils who might have been less confident communicating with a larger group of users.
 - After much discussion among the group, the teachers agreed that it was important to monitor all exchanges between pupils and controlled this by requiring all communications to be through discussion boards. However, even within the discussion boards there were examples of inappropriate exchanges.
32. As the project progressed there was a significant improvement in the length and quality of exchanges among pupils. Exchanges between the pupils and the external expert contributed significantly to the planned objectives of assisting pupils to develop a better understanding of the world around them and to relate global issues to their local environment.
33. There was evidence that pupils developed an understanding of policies in other countries and to a certain extent empathized with other young people around the world. They recognized that there are forces outside their control that have a direct effect on them. They took the opportunity to comment on their own rights and freedoms as young people and freely discussed controversial local topics such as the problems that are associated with neighbourhood disturbances and punishment beatings.
34. The general trend in the VLE lessons was towards an improvement in discipline for most pupils across the three schools. However some of the teachers observed isolated behavioural difficulties with a small number of pupils and two felt that they had much less control in the classroom. The VLE created a busy and sometimes noisy working environment where the pupils worked in groups to design and develop a presentation.

This presented some problems for those teachers who were not comfortable in this mode of learning.

Pupil learning and engagement

35. Most of the pupils demonstrated the ability to engage in electronic and verbal discussion, to justify their opinions orally and in writing and address examples of stereotypes, injustice, prejudice and abuse of human rights. Through the VLE they demonstrated empathy with the experiences of others and were able to express or explain views that were not their own.
36. Task allocation, within the groups overall, worked smoothly and efficiently though some tensions existed over instances of unkind criticism between pupils in different schools. Those in the same-school sub-groupings were always more cohesive if for no other reason than they were meeting together in the same lesson while the members in other schools were working in different lesson times and days.
37. The virtual learning environment was argued to be less suitable for some pupils than others. It was evident that pupils who are not comfortable communicating through text had difficulty using the VLE but this may be a feature of the Blackboard interface rather than an inherent difficulty with VLE approaches. Certain pupils also seemed not to want to engage with technology, in contrast to their normal reaction to conventional lessons.
38. There was some evidence that disaffected and low performing pupils were motivated to engage with learning in the areas covered by the VLE but all of the teachers felt that the ability and skills of the pupils had an influence on the confidence and speed at which they used the VLE. There were mixed views about whether the VLE itself motivated the pupils to learn. The stronger view was that it did motivate most of the pupils (especially the less 'able' and 'disaffected') but that this motivation was towards ICT skill development rather than citizenship.
39. Although the emphasis on the technology was therefore felt to distract the pupils from the curricular learning objectives little evidence was observed of any adjustment in the teaching approach to take account of this distracting influence.
40. The pupils quickly grasped the navigational environment and the PowerPoint skills necessary for the final task. This task, on an aspect of human rights of young people, was executed to extraordinary levels of quality and expressiveness by all of the pupil groups. This might have been expected of some pupils but the work of the usually underperforming pupils, those from whom the teachers and indeed principals might usually have expected little, confirmed the solid achievement of this objective.
41. Pupils were able to search the given websites and more widely on the Internet to select their own material in completing their tasks and constructing their presentation. They were able to analyse (research, read and process) information about a chosen theme within the 'Human Rights of Young Adults' framework.
42. A diversity in learning was evident inasmuch as the learning context often mixed different discussion modes (e.g. electronic and verbal, pupil-pupil and pupil-external expert etc) and the content matter took the pupils into international issues and resource bases.

Implications for policy and practice

43. The work of the project has shown that a VLE can considerably enhance citizenship education, making it amenable to key stage 3 pupils and opening for them a window onto a global view of its complex and often contentious breadth of social and political issues.
44. The project demonstrated that there are considerable hurdles to be overcome in ensuring that the community of teachers in Northern Ireland is competent, confident and willing to grasp the new orthodoxies that teaching and learning with VLEs imply. The 'buy-in' of teachers has been demonstrated to be of paramount importance and introductions to VLE technology must be high quality, relevant and designed to demonstrate the potential benefits of blending 'traditional' teaching and learning with virtual learning.

45. Planning should ensure there is appropriate engagement of teachers in the pedagogic design of any VLE to support any area of the curriculum. There needs to be considerable time set aside for teachers to develop the knowledge, skills and understanding necessary to underpin their involvement in new teaching contexts; to identify, select and marshal the vast resources available on-line to support their pupils' learning and their own teaching; and to monitor their pupils' work and progress on-line.
46. There also needs to be a substantial training programme for teachers that covers the technical aspects of VLE usage and develops the skills and judgements needed to blend good traditional pedagogic practice with the integration of innovative learning contexts; the skills of assessing and recognizing pupils' progress and performance in increasingly complex learning contexts ranging from wholly individualized to wholly collaborative; and the skills needed in engaging with pupils in on-line feedback and support and learning outside the classroom (in existing or developed collaborative communities).
47. The project has demonstrated clearly that school managers may be very aware of the potential of VLE-type technology and their responsibilities in providing the leadership that facilitates its integration in their schools. However, it has also clearly demonstrated that there is unlikely to be sufficient flexibility in the current staffing and resourcing levels of schools for school managers to realize their aspirations. Estimates of resource needs are very difficult to make with any quantitative certainty but the extent of VLE training, course development and practice time needed in the first few years of the roll-out of the next phase in the education technology strategy will be considerable.
48. There was little evidence in this project that the construction of VLE learning communities around classes, teachers and pupils will be easy. The project has shown that the understandable reluctance of teachers to engage in after-hours work to support such developments will be one major factor.
49. The project leaves little doubt that VLEs are viable and powerful learning environments for all types of pupil in key stage 3 (and by extrapolation from it, in combination with the findings of other VLE projects, to advanced level and key stage 4). It also leaves little doubt that there are considerable challenges ahead for policy makers and implementers in securing the necessary willingness and enthusiasm of teachers, affording them the time and training to reach the levels of competence and confidence needed and supporting school managers in well planned integration of VLE-type technology into their schools.

The full details of the study follow in the main body of the report.

EVALUATING THE POTENTIAL FOR VIRTUAL LEARNING ENVIRONMENTS (VLEs)

A VIRTUAL LEARNING ENVIRONMENT FOR TEACHING CITIZENSHIP

AIMS OF THE PROJECT

The Northern Ireland education system is currently undertaking one of the most systematic and comprehensive initiatives in the resourcing of schools ever experienced in these islands. Costing in the region of £300 million, the programme underway is designed to change the delivery of learning and teaching in our schools quite radically over the next 5-10 years. Focusing on the potential for computer-based enhancement of education, and specifically the innovative practices enabled by the introduction of e-learning, the Education Technology Strategy for Northern Ireland was initiated in 1997 (ETS, 1997)¹. At that time, the Education Technology Strategy Management Group (ETSMG) set about twinning professional development initiatives in information and communication technologies (ICT) for teachers, funded by the New Opportunities Fund, with the development of a system-wide ICT infrastructure and connectivity for the education community, undertaken by C2k. These large-scale programmes were dovetailed in the first of two 5-year plans to revolutionize the ICT resourcing of schools. The second 5-year phase is underway and has moved from an emphasis on provision to an emphasis on learning (NIEL 2003)².

In the wider education community, the Curriculum Review being undertaken by the Council for Curriculum, Examinations and Assessment has been focusing on the development of the pupil in the context of the global, knowledge-based economy. Emerging proposals for a fundamentally revised curriculum, especially at key stage 3, emphasize the centrality of employability, the inclusion of citizenship and a shift in focus from content to skills development and a thematic approach to learning and teaching. Key to much of the recent and planned future developments is an increasingly sophisticated use of ICT in the delivery of learning and teaching. Running in parallel we also have the major development of the second 5-year phase: a Northern Ireland-wide 'managed learning environment' (MLE), which plans to put 'virtual learning environments' (VLEs) at the disposal of every school.

In the last five years, there has been an explosive growth in ICT in the form of global networking and a vast and growing range of communication tools. New technology is increasingly transforming society and the quantity and immediacy of information that is available to schools through the Internet seems boundless. The very scale of these resources demands a systematic approach to managing them and the education partners in Northern Ireland have not been slow to react and commit the necessary funds. Throughout 2002/3 a series of e-learning projects was undertaken to assess both the technical aspects (choice of VLE software, design and delivery issues etc.) and the education potential of such systems (for details of these see NIEL, 2003).

One of these projects, the project reported here, set out to examine another dimension of the evolving situation, that of the readiness of schools to undertake the transition to integrating e-learning into their everyday activities. A new curriculum area was identified as the focus (citizenship education) and the chosen VLE platform was Blackboard. In effect, the VLE had to be developed from 'scratch' and integrated in the teaching of the selected school classes. The project therefore proceeded in two main phases: first providing professional development for the participating teachers and developing the VLE and secondly using the VLE in

¹ See Education Technology Strategy at www.deni.gov.uk/about/strategies/d_ets.htm

² See the report of the Northern Ireland e-Learning Partnership at www.elearningfutures.com/documents/ANNUAL%20REPORT_for2002_03.pdf

classroom lessons on citizenship. This report, then, reveals the school and teacher perspectives on developing and using a VLE approach in teaching and learning. It covers the design process, the professional development context and the classroom use of a VLE in a new area of the developing curriculum, that of citizenship.

There are five main parts to the report including the project details, a report of the VLE development phase (November 2002 - February 2003), findings from the teaching and learning phase (February 2003 - June 2003) and a background section from Mary Mallon of C2k and Dr Pamela Cowan of Queen's (Appendices 1 and 2 respectively). The final section is a commentary on the implications the project raises for policy and practice, in the context of VLEs. The whole report is condensed for a 'quick read' in the executive summary preceding this introduction.

PROJECT DETAILS, OBJECTIVES AND METHODS

Details

The contract for the project was issued in mid-September 2002 and a teacher researcher was appointed to begin work on 1st November 2002. The commissioning body, the Department of Education, determined the main working parameters i.e. that the subject area should be citizenship, that the target group should be pupils entering the last year of key stage 3 (Year 10 pupils, approximately 14 years of age) and that the schools chosen should include boys' and girls' schools. Three schools, one boys' and two girls' high schools, had previously agreed in principle to take part in the project and formal invitations were issued and accepted in late October-early November 2002.

In each school, two teachers were identified by the principal on the basis of a variety of attributes including the subject areas they taught, their teaching groups (i.e. they had to have an appropriate Year 10 class) and their likely interest in taking part. The selected teachers included a teacher of English, two teachers of modern languages, a geography teacher, an art teacher and a careers teacher. The two modern languages teachers were in separate schools. The gender breakdown was four women and two men.

The three schools were non-selective high schools and offered classes of pupils that were broadly consistent in levels of academic performance within their own group. They provided a project mix comprising one each of low, moderate to high and high academic performance classes. The class sizes were 13, 18 and 14 pupils respectively.

The project effectively began in November 2002 and by February 2003 a fully fledged VLE had been created and was ready for classroom use between the end of February 2003 and early June 2003. Data analysis continued over the summer and in the new school term a series of dissemination workshops was held with the group of principals first and then with the staff of each of the schools. The final report writing was completed in the period November to early December 2003.

Specific Objectives

The project had many objectives and it is perhaps best to conceptualize them in three groups: design objectives, learning and teaching objectives and policy and implementation objectives. Once the teachers came on board they identified a set of more refined objectives for the project overall. Then, as a result of a very productive series of meetings, they teased the educational objectives out still further into learning objectives for the pupils and professional development objectives for themselves. These latter sets of objectives are considered in the relevant sections while the overall project-level objectives are set out briefly here.

Design objectives

With the overarching aim of the proposal being the creation and evaluation of a virtual learning environment (VLE), the design objectives were to provide an on-line learning and teaching environment with features common to such systems. These features would include: a notice-board, a course outline area, course material, resource links, an e-mail facility for students and teachers, a conferencing area, students' Web homepages, tools for teachers to upload and/or create assignments, student profiling tools and synchronous collaboration tools (chat rooms).

Learning and teaching objectives

The learning and teaching objectives of the proposed work were to be focused on the central aim of enabling students to work in project-based collaboration, to communicate in one-to-one, one-to-many and many-to-many virtual environments, to communicate similarly with

teachers and to work on computer-mediated communication (CMC) tasks relevant to the curriculum and devised by their teachers.

In the context of enhancing and extending curriculum provision, the following objectives were also to be addressed: reducing disaffection and increasing student motivation by creating an environment that reduces fear of failure and fosters independent learning styles.

Policy and implementation objectives

The policy, teaching and technology-related objectives of the initiative may be summarized as identifying appropriate training for teachers who work with or wish to develop VLEs, identifying the design principles and logistic issues relating to best practice in VLE provision, and creating and evaluating a VLE serving the citizenship aspects of the key stage 3 curriculum.

Project objectives from the teachers' perspective

Early in the project, the general aim: *to evaluate the potential for VLEs in the classroom*, was teased out into a number of specific objectives through interviews and discussions with the teachers involved. The developed aims included the desire to:

- Promote social awareness among young people, in order to prepare them for a more diverse society
- Develop a stimulating and motivating on-line environment for teachers and pupils
- Introduce pupils to the concept of on-line communities through which ideas and opinions on global citizenship issues can be shared with children from other cultures
- Foster links and develop communication between pupils, schools, youth groups, community and voluntary groups in order to create an extended classroom environment.
- Provide professional development opportunities for the teachers, giving them increased confidence in and understanding of the use of VLEs
- Raise teachers' awareness of the possibilities afforded by integrating aspects of a VLE into classroom delivery
- Identify some of the issues in terms of the access, training and support that need to be addressed in order to truly embed ICT into learning and teaching.

Methods

Variables

The essence of this project was an exploration and illumination of the processes, constraints, facilitators and design characteristics that influence or are likely to influence the development and embedding of VLE technologies in Northern Ireland schools. The twin dimensions of technical (virtual learning environments) and curricular (relating to a new subject, citizenship) innovations, both unfamiliar to the staff and schools, created an experimental context that few single-focus projects would match in terms of complexity and challenge. The variety of likely influences on the success or otherwise of such 'new learning' initiatives can be predicted to be widely based and to include such matters as the suitability and level of resourcing, modes of access to the technology, the complexity of the environments, the technical competence of the teachers and the attitudes of the teachers. Such complexity is not amenable to standard quantitative methods of research and the final design was therefore based around a close engagement with the schools and teachers on at least a weekly basis.

Data collection

In short, the project constituted a multi-variable situation that could not be conceived in terms of trying to isolate simple causes and their effects. The methods of data collection therefore had to be participative, with the teacher researcher working with the schools, including being with the teachers in the VLE lesson periods. They also had to be inquiry-based with the logging of teachers' views from both continuous informal interactions and formal one-to-one

and focus group interviews on a more periodic basis. The teachers' views were perhaps the main data source in the project. Valuable insights into the plausibility of engaging teachers in VLE development, in the use of VLEs in the classroom and the models of development and usage, were drawn from the teachers' inputs and represent a significant resource for anyone considering how a major VLE initiative might be undertaken.

The VLE system afforded the collection of statistical data on the pupils' and teachers' usage, with data on time-on-system, time of day and date, number of log-ons etc. This enabled the extent and pattern of engagement to be analysed.

The activities and work of pupils were also a focus for observation and provided a body of evidence of what the pupils had gained from the project. An attempt was also made to gauge any change in the pupils' inter-cultural attitudes, using a short attitude scale administered at the beginning and end of the teaching and learning phase of the study. **However, no change in attitudes was detectable partly, we believe, because the two measurement points in time were separated by only the 12 weeks of the citizenship teaching period, and partly because the pupils showed high positive levels of disposition at the beginning, reducing the potential to show improvement later.**

Data analysis

The teachers' perceptions, in the form of interview notes and transcripts, were analysed initially to categorize their views into clusters of responses relating to particular issues. They were then grouped under themes to identify patterns that might exist, in their perception, on key areas of activity. The researcher's observation notes were similarly grouped to enable the views expressed by the teachers to be compared, where relevant, to actual practice.

The pupils created PowerPoint slideshows to consolidate and present the learning they had undertaken. Although not analysed in anything other than an impressionistic way (they were all good!), the presentations did provide evidence of work carried out by the pupils and the extent of their grasp of the issues. The usage data were treated simply and are presented later in the report as frequency data in the form of appropriate charts. The pupil inter-cultural responses were also analysed using simple frequency-based statistics.

Anonymity

The primary source of data in the project was the group of six teachers. With such a small group, care is needed in the treatment of findings to ensure that anonymity, which encouraged candidness in interview responses, discussions and other similar data collection activities, is preserved for the teachers and schools involved. This frankness was vital to the validity of the project's findings and without it we would not have attracted the richness of data that we did. Examples illustrating this breadth included the reflective: "[I experienced] a 'letting go' of control [to become] a facilitator, a mentor, a tutor" to a crude misunderstanding of the project purpose: "I don't want to put a lot of hard work in just to hand it over to C2k at the end of the day".

To this end, the findings and any illustrative data, such as quotations, have been anonymized to ensure that specific people cannot be identified directly or by association. The source of any quotation is identified by Teacher 1, Teacher 2 etc., the gender of individual teachers is protected by using the colloquial plural (they, them etc.) and the gender of pupils is not given in circumstances that would associate them with their teachers. The schools, as mentioned earlier, are identified as School 1, School 2 and School 3.

Interpretation of findings

It must be borne in mind that the project was small-scale in terms of its focusing on three classes in three schools, and the work of six teachers during different parts of one school year. The extent to which the findings might be generalized to other settings, or to which policy and practice should be influenced, is therefore problematic. However it is a very detailed study and as such its findings are grounded on a solid experiential base: the experiences of normal schools, teachers and pupils in working to develop and use a VLE. Readers are therefore asked to judge the findings in terms of their strong likelihood to reflect

the potential difficulties and successes that a more broadly based VLE development in schools might experience.

The Schools

School 1

Target Group: 18 x Year 10 pupils, graded as being in the medium to high performance band.

Resources: There were three main computer rooms, one of which was used to facilitate the citizenship VLE. The room was assigned to a full-time ICT teacher who gave it up each week to facilitate the project. When the ICT teacher did not have timetabled classes the room was available for booking by other teachers.

Support and Access: There was one ICT technician with an office down the hall from the computer rooms. The technician's main concern during the project year was the renovation of the computer rooms, with the computers having to be re-located and the new rooms cabled accordingly. The main responsibility of the technician was to support the teachers (but not during lessons) and maintain the system. The computer rooms were locked between lessons, at lunchtime and after school. There was no access for pupils without prior arrangements being made with a teacher.

General Information: At the outset of the project the school had a basic website that held contact details but has since been considerably expanded to be much more informative and interesting.

School 2

Target Group: 13 x Year 10 pupils whose general performance put them into the category of 'disaffected'.

Resources: There were four main computer rooms with each room occupied on an almost full time basis by one teacher. Access to the rooms could be booked when they did not have timetabled lessons. In order to facilitate the VLE project, an ICT teacher gave up the class time each week.

Support: The school computer system was serviced by two technicians with responsibility for supporting teachers and pupils (particularly the senior pupils) and maintaining the school website. The computer rooms were open in the morning, at lunchtime and after school for pupils to come in and work. Access to the Internet was also provided at these times.

General Information: The school was developing a new website which includes server space for teachers to post course information and resources. There was an obvious ICT 'culture' in the school with experience in several ICT projects over recent years. Each teacher had a memory stick to save and back-up their work and all heads of department and teachers with specific responsibilities had a laptop with Internet capability.

School 3

Target Group: 14 x Year 10 pupils, graded as being in the high performance band.

Resources: The school had two computer rooms though additional classrooms also had various numbers of computers. A small computer room was booked for the duration of the project. This room was not normally assigned to anyone and was free for teachers to book for lessons with their classes.

Support: The school had one technician based in an office overlooking the glass walled computer rooms, offering immediate support and assistance to teachers and pupils when the need arose. An open access computer room was available to pupils over lunchtime and after school. These sessions were facilitated by the technician whose lunchtime was arranged to fit. Many teachers also availed of the after-school access so supervision was not a problem.

General Information: The school's excellent ICT facilities were in constant demand.

The Teachers

Teacher 1

- has more than 15 years experience of teaching
- uses a computer (but with no Internet connection) at home approximately 2-3 times per week
- does not plan to get the Internet at home where other responsibilities would prevent real benefits being had from Internet access
- does not have access to a computer and the Internet during school hours, except for booked lessons
- would like to use computers more often for personal and teaching use
- uses computers in teaching on average 2-3 times a week

Teacher 2

- is relatively new to the profession
- uses a computer and the Internet at home 2-3 times weekly and for school-related work approximately once a week
- uses computers in teaching monthly, when they are available and relevant to the lesson
- has limited access to a computer and the Internet during school hours

Teacher 3

- is new to the profession
- uses a computer and the Internet at home on a daily basis
- has limited access to a computer and the Internet during school hours, normally using them on a monthly basis in their teaching
- would like to make more personal use of computers and is happy with the level and quality of the use of computers in their teaching

Teacher 4

- is relatively new to the profession
- uses a computer and the Internet at home and in school on a daily basis, with a high level of confidence
- has full access to a computer and the Internet during school hours.
- uses computers in teaching on average 2-3 times a week

Teacher 5

- has been teaching for around 10 years
- had the Internet installed at home to help keep up-to-date with developments in the VLE
- has a position of responsibility in the school and finds that the nature of this role often uses up all free time during the school day
- completes a large amount of school work at home, including all marking
- though reporting low confidence at the outset of the project now feels is a capable user and used the VLE frequently at home
- uses computers in teaching at least once a month, by booking a computer room and taking pupils into it to complete on-line tasks and sound exercises

Teacher 6

- has been teaching for more than 10 years
- has a computer and the Internet at home and uses it 2-3 times each week

- uses the computer while in school about 2-3 times each week, but only once a week in connection with teaching
- was very concerned about personal level of IT skills on entering the project and hoped that involvement in the project would allow the further development of skills
- has completed NOF training but does not feel confident in the independent use of computers

THE VLE DEVELOPMENT PHASE

As described above, the project embraced two challenges within its overall intent: the development of a virtual learning environment and the development of a citizenship teaching unit. Both elements of this objective therefore constituted unknown territories for all concerned but most particularly the teachers, their pupils and their schools (though one teacher, it must be said, had a masters degree in a citizenship-related topic).

In this section, we report on the curricular, technical and professional processes involved in creating the VLE. This process was largely completed in the period November 2002 to the end of February 2003.

Choice of Curriculum Area

The general aim of the project was to create a VLE for teaching and learning in citizenship. In order to begin the process of narrowing the field down to a section of citizenship that could be addressed within the project timeframe, the teachers were provided with a range of teaching and non-teaching resources. Local organizations were approached and they provided information about the education resources and projects they organize. These included:

- The UNESCO Centre, which provided advice about the types of resources currently available and in particular an extensive book and video list.
- The Simon Community, which provided a booklet and CD called 'Outhouse', identifying the issues surrounding homelessness in Northern Ireland.
- The Children's Law Centre, which provided a range of teaching resources suitable for key stage three pupils.
- The Save the Children Fund, which provided a wide range of teaching materials on a number of topics, for example 'Survival for the Tribal Peoples'. The Fund made their library of resources available, allowing the teacher researcher to browse and borrow books.
- The Human Rights Commission, which provided access to their library and their range of educational information and resources.
- The One World Centre, which provided access to resources. Their staff advised on a selection of articles, which formed the main body of the material content in the VLE.

Once the resource bases had been identified, the next step involved the teachers discussing several topic areas which could form the basis of the curriculum aspects of the VLE. Three areas came to the fore at first: the World of Work, the Environment and Human Rights. The benefits and relevance of examining the area of human rights of young people were argued by several teachers in the initial meetings leading up to the first professional development day and the majority favoured this by the end of that day's discussions. During these discussions, the reasons for choosing the area of the human rights of young people were variously argued as:

- Capitalizing on an area that affects the pupils' own age group
- Involving experiences of their global peer group that would strike a chord with the pupils in relation to their own normal experiences (e.g. education, employment)
- Offering the pupils an opportunity to engage in work that draws on their experience and therefore provides a dimension of authenticity to their learning activities
- Capitalizing on the accessibility and quality of the range of resources already available, including sample lessons, games and role play information.

By the second development day, at the end of January 2003, consensus had been achieved and the human rights of young people became the one area that would be identified as the focus for all three schools.

Under the area of human rights the teachers had quickly identified Education, Child Labour, Health, Neglect, War and Kidnapping as areas that would be of particular interest to the pupils. Having researched these areas, however, it became evident that the quantity of high

quality resource material available, particularly on the Internet, was vast. It was clear that the teachers could afford to be selective in what they felt was appropriate to the age and ability of their pupils. The group discussed how the content areas might be made more manageable and from the original range of topics agreed to focus on three main themes: Children in Slavery, Children in Conflict and Trafficking of Children.

Over the course of this development phase of the project, a wide range of resources was identified by the teachers. These included selections of images, articles from local, national and international newspapers, posters and maps. Video is a strong media source for all pupil age groups and arguably more so for the 14 year olds in this project but it was the one resource type that proved disappointing in terms of finding good examples.

Developing the Scheme of Work

Inter-school collaboration was not a project objective but it was argued by several of the teachers that they had worked collaboratively in the past and that it had been very successful. At one meeting inter-school collaboration was discussed as a major feature of on-line education, enabling pupils from different geographical areas to communicate about common interests including aspects of learning. The additional project benefits accruing from at-a-distance communication, rather than communication between pupils in the same class, were clearly recognized by the teachers.

In order to enable as much inter-school collaboration and as much consistency and similarity in the activities in each school as possible, it was decided early in the project to design and develop a common scheme of work for the project classes. The scheme had to enable each teacher to put their own stamp on the content and had to allow them the flexibility to organize and manage the unit of work in a way that met the needs of their pupils. The scheme format therefore took the form of an outline that identified the learning objectives for each lesson.

The scheme was designed around the human rights issues noted in the previous section: Children in Slavery, Children in Conflict and Trafficking of Children. The teachers worked collectively to develop the scheme of work around these topics and created their own lesson plans to ensure that the required content and planned activities would be completed in the allocated timeframe.

The design of the scheme of work

The design of the scheme of work took a standard approach i.e. drawing on what the teachers had outlined as the learning objectives they were setting for their pupils. As the teachers talked during the project meetings, about what they hoped the pupils would learn, the teacher researcher recorded their comments. The collection of comments was then re-cast as the initial outline of the scheme for discussion. The cycle of reflection and comment progressed by using resource examples and involving discussions on the learning objectives being targeted, and the teaching context that would be created to achieve them. For example, a game about rights and responsibilities was identified and altered to suit the purpose. Teachers discussed how long they felt it would take to cover this type of activity in their class. The process continued with the various points and ideas being recorded on a grid and e-mailed around the group for comment. Usually at least two teachers would comment on what was e-mailed and the early outline developed quickly until it was finally agreed at the end of January 2003.

Lesson planning

Citizenship was an entirely new element of the curriculum for the teachers and there was an understandable reticence about sharing ideas and offering opinions on the issues concerned. Suggestions for lesson planning came from all of the teachers but those with more teaching experience were more confident and clear about what they hoped to achieve, and this helped the group as a whole. The most popular introductory resource, designed and developed by UNICEF, proved to be a game that linked young peoples' rights and responsibilities with their wants and needs. The introduction of human rights to the classes using this participative

format reinforced the point that every individual has a role to play in upholding the rights of others.

The scheme of work was particularly successful in enabling the teachers to take their own approach to the development of lesson plans for their class groups. The variety was much as one might expect and ranged from the use of open discussion on the generalities of the subject content to the breaking down of these generalities into specific lesson activities, supported by additional resources where possible. The teachers organized various activities during the lessons, with images and notes posted on the VLE to assist the pupils in developing an understanding of the content. Lesson plans included activities and tasks that were carefully set to be achievable by the pupils. To a large extent, normal lesson interactions such as questions and feedback, were noticeably decreased, especially in the early stages but an effective feedback process, on pupils' work, was evident in at least one of the schools by the end of the teaching phase of the project.

A significant amount of time was spent debating what the final task or outcome should be. It was decided by teachers that the most appropriate outcome for a group of key stage 3 pupils of mixed ability would be a PowerPoint presentation. While all teachers agreed on this some teachers expressed concern that their pupils would not be capable of completing a PowerPoint presentation. It was decided that the outcome should not be graded and should be relevant to the pupil's ability. It was also agreed that sample presentations should be included to give guidance to both teachers and pupils in the area and this was carried out. The final task and the supporting mini-tasks are set out in Appendix 2.

Choice of VLE Software

The choice of VLE had been facilitated by C2k and a team of their consultants. They had been evaluating the VLE concept from a technical and educational point of view for some time as they developed the procurement needs and criteria for the Education Technology Strategy. Their recent experience in the development of several highly successful VLEs was to prove particularly valuable in the project's development. C2k provided the necessary licensing of the Blackboard environment and software for the project, a quota of user 'seats' on the VLE network, server facilities and pedagogic, curricular and technical support.

At the outset, the Blackboard software was considered to offer a good structural basis for developing the course, allowing the necessary flexibility to customize design features such as colour schemes, buttons and a project banner. (This view was an initial view and was considerably modified before the end of the project - see later in the report.)

Process of Designing a VLE

The limited time available to the project placed considerable constraints on the development phase. The aim was to have a working VLE ready as soon after Christmas 2002 as possible (the teacher researcher having started work at the beginning of November). By 'working' was meant a VLE tailored to the schools concerned, structured for pupil and staff 'seats', populated with appropriate resources and functional in terms of the necessary management and monitoring facilities for the teachers and researchers. The effective working window was November 2002 through to January 2003, with a large part of December unavailable to the project through teacher and school activities and commitments leading up to Christmas. The bulk of February 2003 was given over to populating the VLE with appropriate resources. The work was taken forward on several axes, for example: curricular and professional development issues were addressed with the teachers and schools, and technical and design issues were addressed with the C2k team of supporting consultants. This may give the impression that this phase was one of iterative development but the actual process involved many activities running in parallel and dovetailing as appropriate.

The first step in the construction of the VLE was for the research team to meet the C2k consultants and discuss course development ideas. The consultants' experience of working with other VLEs was crucial to identifying possible areas of concern for the teachers involved

in the project. After the initial discussions it was agreed that the teachers should be party to any major decisions; partly to ensure that the best educational advice was being brought to bear on the design and partly to ensure that the teachers would properly own the environment.

Design meetings with the teachers

Meetings with the teachers were initiated at the beginning of November 2002 on the appointment of the teacher researcher. These centred on the subject area of citizenship and the resources available. During these initial meetings Internet resources, local and international texts were evaluated and professional development days were identified to provide training on the Blackboard VLE. School based design meetings followed the first professional development day in January 2003 to expand on issues raised and to enable the teachers to take an active part in content research and evaluation. The teachers were introduced to the main features of Blackboard by the C2k consultants, who outlined what a VLE is and how it is currently being used in schools by teachers and pupils in other subject areas across key stages.

The second professional development day's training focused on the use of the toolset within the VLE. The group examined the main menu areas, including options that would be available to the pupils. For the purposes of the learning experience, teachers were in fact playing the role of a pupil. They browsed through sample content that had been posted by the teacher researcher and evaluated the navigational system. Teachers worked their way through each menu option from the main operational menu, examining tools available and evaluating the interface that pupils would see on entering these options.

After this initial familiarization the teachers examined the Blackboard VLE through the 'control panel' which includes functions only available to them. These functions enable the teacher to add folders to the structure, items to the content material area and external links to provide additional resource material for pupils. The teachers worked in groups of two to complete short tasks within the VLE, with each pair assisted by the teacher researcher and a C2k consultant. Following this session the C2k consultants set up individual VLE areas for each teacher to practise creating folders and posting resource material to a VLE. Between these training days, the group continued to focus on researching and posting content and website links onto the VLE. Most of this work arose out of school-based design meetings conducted by the teacher researcher.

Each professional development day was designed with equal proportions of the time spent developing the teaching approach for citizenship and developing VLE knowledge and skills. However the teachers commented that initially they found this a very difficult process, having to link two new areas together cohesively and develop a full and clear understanding of the potential of the VLE. The most significant progress on Blackboard-related activities was made during the third professional development day when the teachers concentrated on facilities for posting on-line assessment tasks and examining the statistical usage patterns stored within the VLE. The C2k consultants facilitated the development of a colour scheme, banner and buttons for the VLE by producing several sample set-ups and allowing the teachers to choose the one they preferred. The final design chosen was a front screen banner that incorporated the three school logos.

A problem, which was experienced early in the design process, was the sheer volume of possible resources. Guidelines were not available to the teachers on limits and, with such a vast Internet resource, the information overload quickly gave rise to a quality control concern and a subsequent selection process for age-appropriate material. The large volume created a number of difficulties and needed a complex range of folders, which then confronted the user on entering the VLE. A restructuring exercise, managed by the C2k consultants, helped the teachers to identify and group the content under the three themed areas: Children in Slavery, Children in Conflict and Trafficking of Children.

A uniform structure of folders and sub-folders was developed for each of these themes and was repeated in all menu option areas. For example, the structure of folders under the 'Course Material' option was the same as the structure of folders under the 'Web Sites' option. The content was then graded by quality and any resources that the teachers felt were

unsuitable or did not reach a high enough standard in presentation or content were deleted. Some content was deemed useful but inappropriately presented (e.g. written for adults) and a number of these resources were recast by the teacher researcher in PowerPoint presentations, in a register more amenable to the pupils.

The development of specific pages for the pupil groups, and the subsequent development of the group communication areas to allow confidential communication, gave rise to some problems, most importantly in the monitoring of the interactions. This issue took some weeks to resolve but it was eventually agreed by all that with limited time, it was better to monitor all communication carefully and leave lines of communication simple and uncomplicated. One teacher felt that because of the dynamics of the groups it was also better to prevent inappropriate interactions rather than run the risk of any such complications interfering with the progress of the project. It was decided to suspend the confidential e-mail facilities and offer pupils communication facilities via the discussion boards only in the general and group areas, so that all communications could be monitored. An illustration of the communication problem is presented later.

Populating the VLE with resources

Much progress had been made in the development and agreement of content areas throughout the month of January 2003. However, during interim meetings with the C2k consultants, an important structural issue had been raised. It was evident that the interpretation of the structural design of the VLE was different for each teacher, resulting in inconsistencies between the location of resources across each area of human rights. For example, websites had been included in an area set aside for teaching material content. This is a common problem when several people are posting to a VLE but are doing so with different perceptions of its structure.

One solution was to divide the three themes among the teachers to reduce repetition in research and in posting content. This altered the agreed and developed structure of the VLE significantly and was at one point felt by the teachers to be a step backwards in the design process (because of the loss of a degree of independence on what was posted). However it proved to be an important part of the evaluation and improvement of the VLE, which was then ready for the start of classes at the end of February 2003.

Sensitive issues

The vetting of materials on a common platform for use by pupils across all three schools proved to be an early problem. The following example serves to illustrate the matter. During meetings with teachers in the preparatory phase one teacher mentioned a concern in dealing with the issue of educating girls in a Muslim culture. The concerns coincided with a lot of adverse coverage of Muslim issues on television. One teacher felt insufficiently knowledgeable about the subject area to provide pupils with a balanced understanding of the culture. However, the main concern was based on the fact that Muslim pupils were studying at the school. The teacher was concerned to avoid comments picked up on the VLE being carried outside the classroom and used inappropriately. The issue was quickly resolved by the C2K consultants introducing locked folders. Such folders had already been in use for other functions. For example, locked folder systems were used to prevent pupils from accessing administration files held in the VLE, such as the attendance record folder which was locked and inaccessible to all pupils. Only users with teacher privileges could access it.

Hot seating

Another problem that arose in the early stages, and which was not resolved, was the role of the teachers in the 'hot-seat'. The hot-seat role is one of acting as a facilitator in relation to stimulating discussion and in responding to pupil questions, requests for help etc. It is not easy to find a way in which teachers can do this in the busy-ness of a school day. A rota of hot-seating was established but was unsuccessful as most of the teachers resolutely declined to give up their own time after school (in the evenings, at weekends) to respond to pupils' questions and problems. After much discussion this feature of a VLE provision was addressed by using external experts in the hot seat.

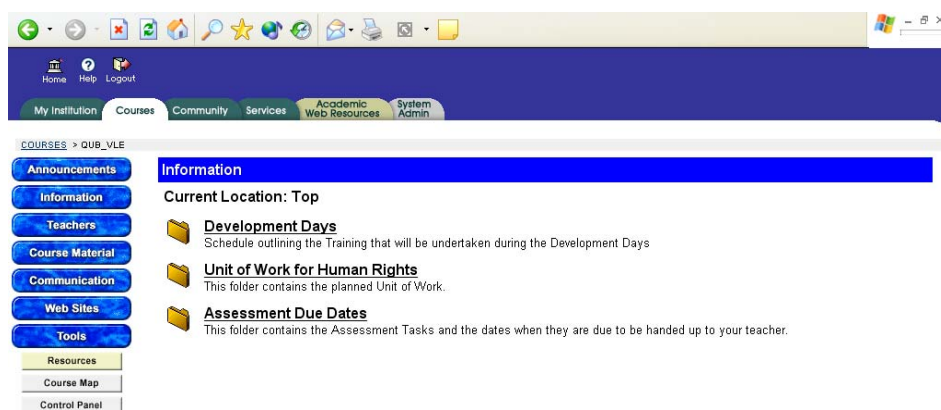
Teachers were asked who they would like to 'hot seat' for their pupils but were reluctant or unable to offer suggestions. The teacher researcher managed to engage the Commissioner for Human Rights in Northern Ireland and a very successful programme of 'hot-seating' was put in place.

Final VLE Design

The VLE was password protected so that only those authorized by C2k to use Blackboard could log-on and only those enrolled in the citizenship VLE course could enter the actual course area.

The log-on sequence brought the user into the first page of the VLE, which displayed the school crests in a banner designed by C2k. Buttons along the left hand side of each screen gave access to the main options offered to the teachers and pupils as illustrated in Figure 1. Each option on the menu bar gave access to a series of folders that pupils could use to navigate quickly and easily to the information they require. The 'Announcements' button took the user back at any time to the front page, on which current announcements were presented under the main banner. As illustrated, the 'Information' area held three folders, one containing notes from the development days, one holding general information and one providing the scheme of work for the citizenship elements of the study. An additional folder contained the assessment information, tasks and dates due.

Figure 1: Information screen from the VLE



The 'Teachers' menu option held information and profiles of the teachers, the C2k consultants and the teacher researcher involved in the project, to help pupils identify them and the role they play. Figure 2 illustrates the type of information that was held in this folder (the details relate to the teacher researcher):

Figure 2: Screen from the Teachers folder in the VLE

The screenshot shows a web browser window displaying a VLE interface. At the top, there is a navigation bar with links for Home, Help, and Logout. Below this is a menu with tabs for My Institution, Courses, Community, Services, Academic Web Resources, and System Admin. The main content area is titled 'Teachers' and shows the 'Current Location: Contacts'. A sidebar on the left contains a list of buttons: Announcements, Information, Teachers, Course Material, Communication, Web Sites, Tools, Resources, Course Map, and Control Panel. The main content area displays the profile of Ms M Mc Ardle, including her name, a small icon, her email address (m.g.mcardle@qub.ac.uk), her work phone (9033 5935), her office location (Graduate School of Education, Queen's University of Belfast, 69-71 University Street, Belfast, BT 7 1HL), and her office hours (9am-5pm). A portrait photo of Ms M Mc Ardle is also shown.

Home Help Logout

My Institution Courses Community Services Academic Web Resources System Admin

COURSES > QUB_VLE

Teachers

Current Location: Contacts

[Top] : Contacts

Ms M Mc Ardle

E-mail: m.g.mcardle@qub.ac.uk

Work phone: 9033 5935

Office Location: Graduate School of Education
Queen's University of Belfast
69-71 University Street
Belfast
BT 7 1HL

Office hours: Office hours: 9am-5pm

Announcements

Information

Teachers

Course Material

Communication

Web Sites

Tools

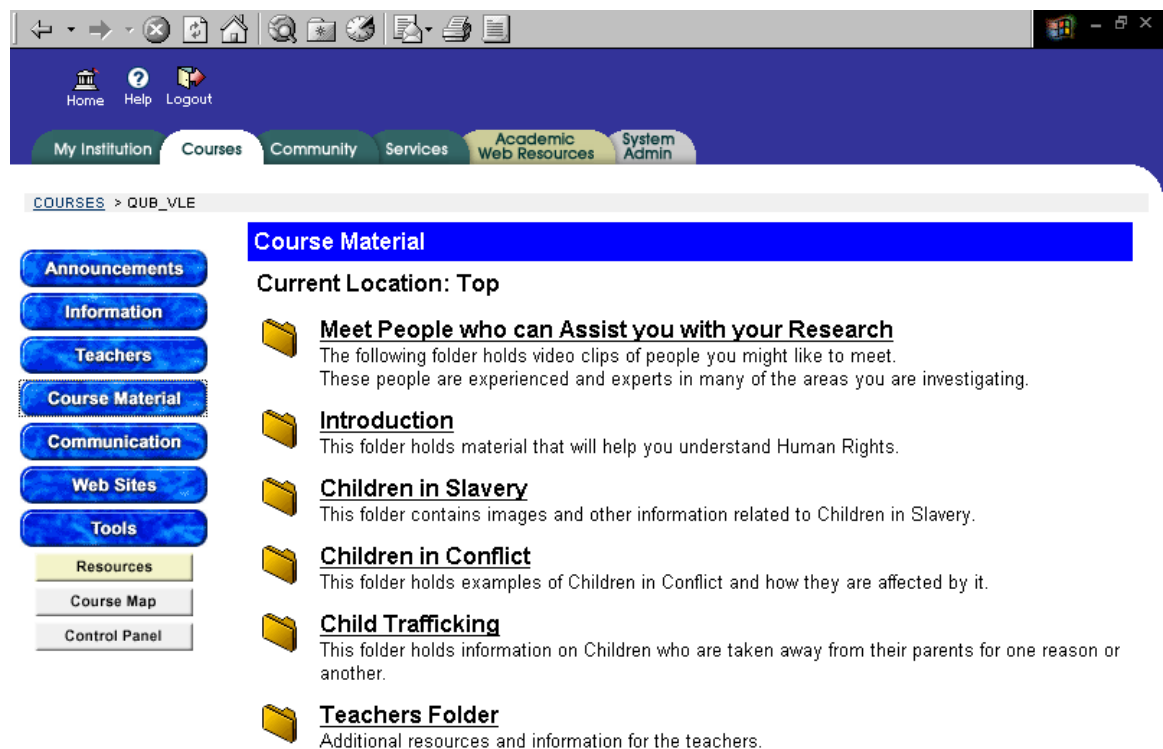
Resources

Course Map

Control Panel

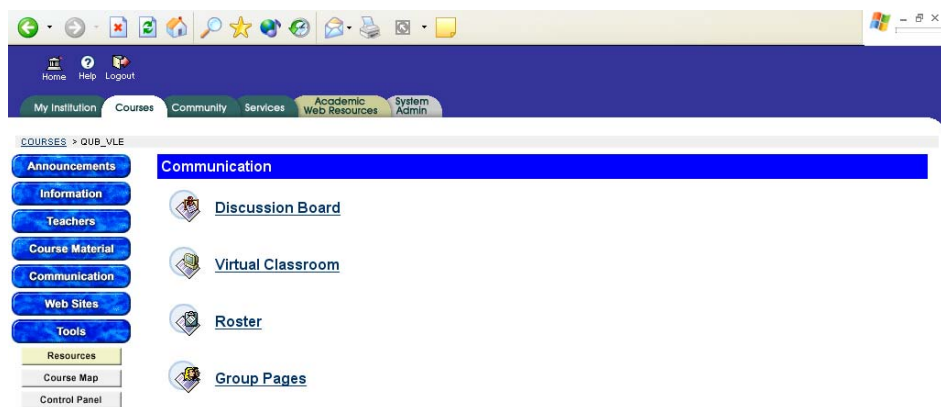
The 'Course Material' area, pictured in Figure 3, held information on the main themes along with relevant handouts and worksheets:

Figure 3: Course material screen from the VLE



The 'Communication' button was one of the most important facilities and offered the participants four areas for interaction. As presented in Figure 4, these were the Discussion Board, the Virtual Classroom, the Roster and the Group pages.

Figure 4: Communication screen from the VLE



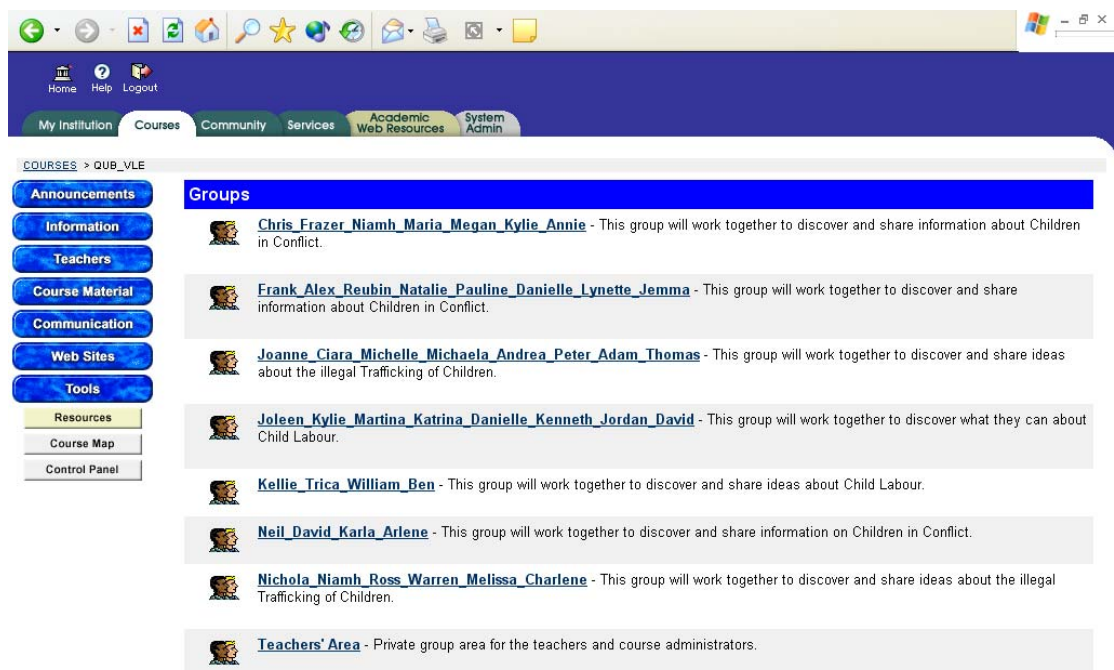
The Discussion Board allowed pupils to chat with all members of the project and ask the experts questions.

The Virtual Classroom provided the teachers with a facility to communicate with all members of the project through simple text or text augmented by imported images or website details. However, it was not used in the teaching phase because timetabling of the classes in the three schools did not coincide.

The Roster allowed pupils to view the homepages of all other pupils involved in the project.

The Group Pages, with access through the screen presented in Figure 5, allowed confidential communication between group members only and each interschool group was provided with a link to their own group page.

Figure 5: Groups screen from the VLE



Pupils could post questions to their teachers in this area and chat with all others involved in the group under topic areas called threads or informally through an area called the Coffee Bar. A similar group page was also set up for the teachers. As noted above, e-mail facilities were eventually restricted to the discussion board to prevent inappropriate and unmonitored communications.

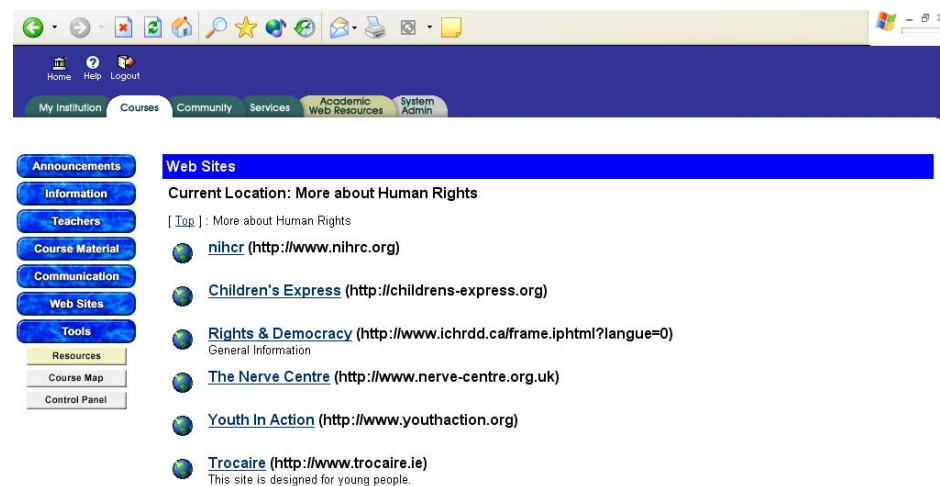
The 'Web Sites' button was divided up into several different folders, illustrated in Figure 6, so that pupils could easily navigate to the area they wished to research.

Figure 6: Web Sites screen from the VLE



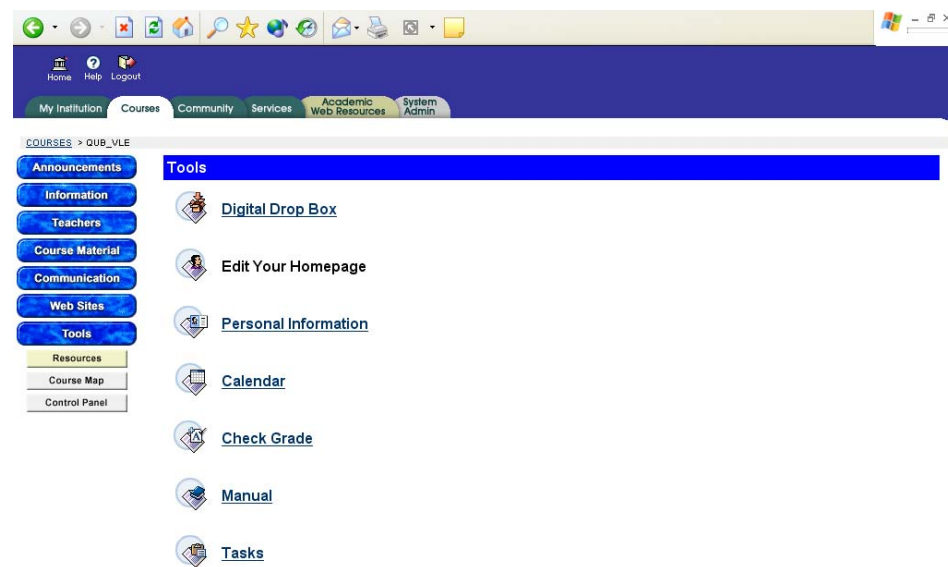
Each website folder presented another layer of links to important sites (e.g. those listed in Figure 7) that provided extensive resource materials for the pupils and teachers.

Figure 7: Web Sites screen for 'More about Human Rights'



The 'Tools' option, Figure 8, allowed the pupils to manage their own schedules and work, for example by submitting work through the 'digital drop box'. This facility allowed the pupils to send their PowerPoint presentations electronically to the teacher for viewing and feedback. The 'Personal Information' facility enabled the pupils to display personal information including images, information about favourite hobbies or websites. The 'Calendar' provided up-to-date information on the main events and hand-in deadlines throughout the project. Although no grading of work took place, the 'Check Grade' facility would have allowed the pupils to access the grades given to their on-line assessment tasks. The 'Manual' option provided a link to an extensive Blackboard reference source and 'Tasks' provided pupils' details of the tasks set by the teachers.

Figure 8: Tools screen from the VLE



Management tools were available to the teachers through the 'Control Panel' option. These tools allowed teachers to carry out a series of management tasks including adding users to the course, monitoring the grades achieved on assessment tasks and viewing statistics on the usage of the course by pupils.

THE TEACHING AND LEARNING PHASE

Evaluation of Blackboard

The teachers felt that Blackboard had many shortcomings. While there was scope to alter the words used within the main template, the selection was very limited. For example, if the system had so allowed, 'Announcements' as a button option could have been replaced by a more suitable word like 'News' and 'Communication' could have been replaced by 'Chat'. The teachers had to explain the more difficult terms to the pupils.

The number of screens accessed through the log-on sequence was considered too many. The teachers felt that there should be a log-on option on the home page to link directly into the system. Another concern for teachers was the navigation. They felt that because the structure of each area was similar pupils might become confused by the layered navigational system.

The interface design and layout was also commented on by several teachers who felt that it could be more age-appropriate and interesting by, for example, incorporating:

- a range of colours
- a range of graphics
- age-appropriate cartoon characters
- an easy to use help option, a help character wizard (similar to the paper clip used by Microsoft) or a question bank
- more interactive elements or flash sequences
- visual links or icons, rather than images of yellow folders

One teacher was uncompromising:

The whole front end of Blackboard is rubbish anyway; it is boring. Teacher 2

Other recent projects in Northern Ireland have demonstrated that the higher education provenance of Blackboard does not translate well to school contexts because of its wordiness, inflexible menu structure and the lack of flexibility in screen design. This has been recognized in the development of plans for the LearningNI system, which will incorporate several basic interfaces for different age-range pupils. Suffice to say that in this project the teachers were unanimous that the interface, which Blackboard offers, is unsuitable for key stage 3 pupils.

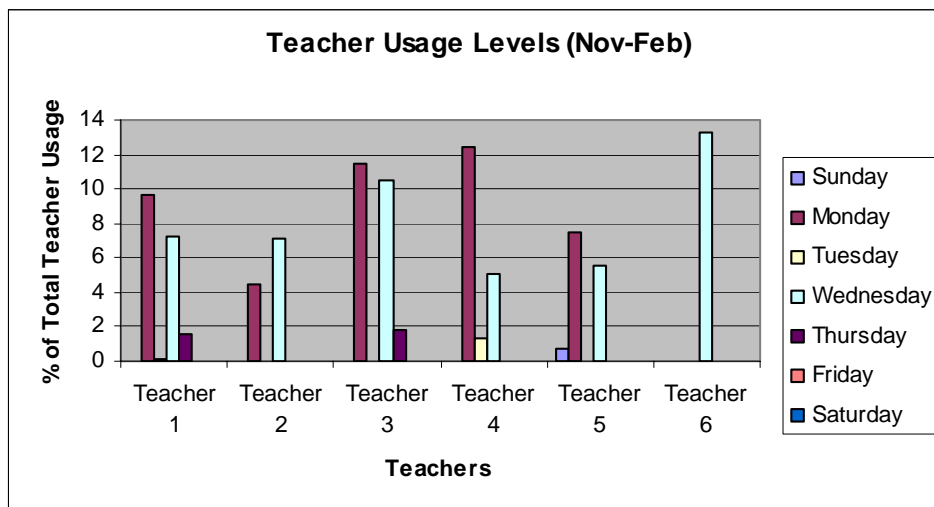
Usage Patterns

It was possible to use the VLE to monitor usage of the system by the pupils and teachers. It must be noted, of course, that the usage statistics should be interpreted carefully as they arise from a small sample of schools and from situations that are affected greatly by levels of access to the Internet.

Prior to the beginning of the project the usage statistics related only to the days in which the teachers participated in professional development. These training days were Thursday 16 January, Wednesday 29 January, Thursday 30 January and Monday 24 February, all 2003.

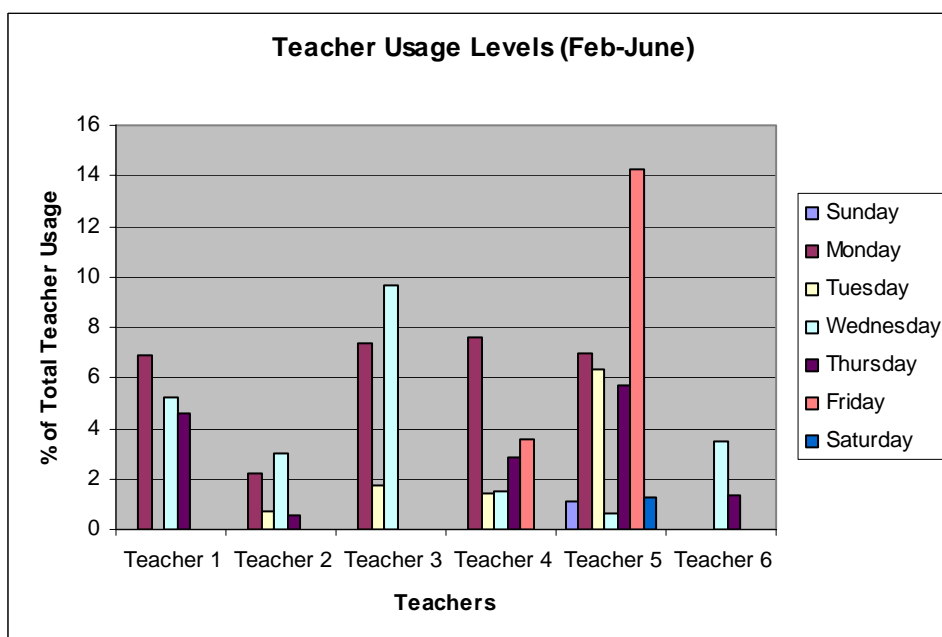
The histogram below illustrates the levels of usage from the beginning of the project, around 17 November 2002, up to and including 24 February 2003, just before the teaching and learning phase.

Figure 9: VLE teacher usage levels in the preparatory period from November to February



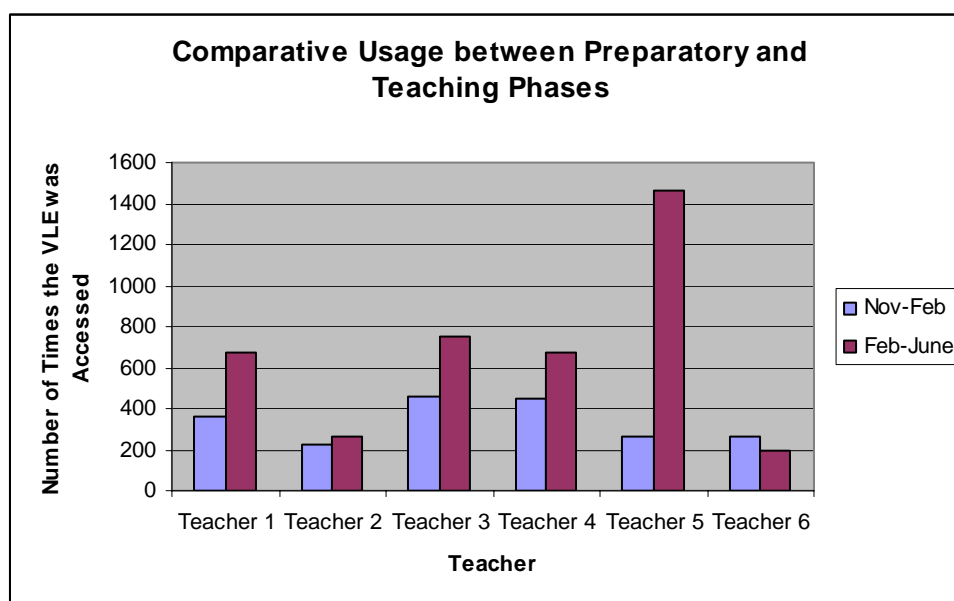
Once the project began in the classrooms, the usage patterns increased significantly. This is illustrated in Figure 10:

Figure 10: Teachers' VLE usage levels from February to June



The graph illustrates the usage patterns for teachers throughout the teaching phase of the project. During the teaching and learning phase, there was a high level of usage by teachers on Mondays. As the lessons in the schools were taught on Wednesdays, Thursdays and Fridays, it is clear that the teachers were accessing the VLE for planning or preparation purposes. As the project moved into the teaching phase it became more demanding and Figure 11 illustrates the significant increase in usage by most of the teachers.

Figure 11: Comparison of usage levels in the preparatory and teaching phases



The time at which teachers accessed the VLE also altered significantly from the initial preparatory development phase to the teaching and learning phase in classrooms. Figures 12 and 13 show that two of the five teachers (from two different schools) who had access at home made extensive usage of the VLE after school hours, especially during the teaching phase. Two others recorded very modest usage and the last used it almost negligibly. (The sixth teacher did not have access.)

Figure 12: Times of day that teachers accessed the VLE from November to February

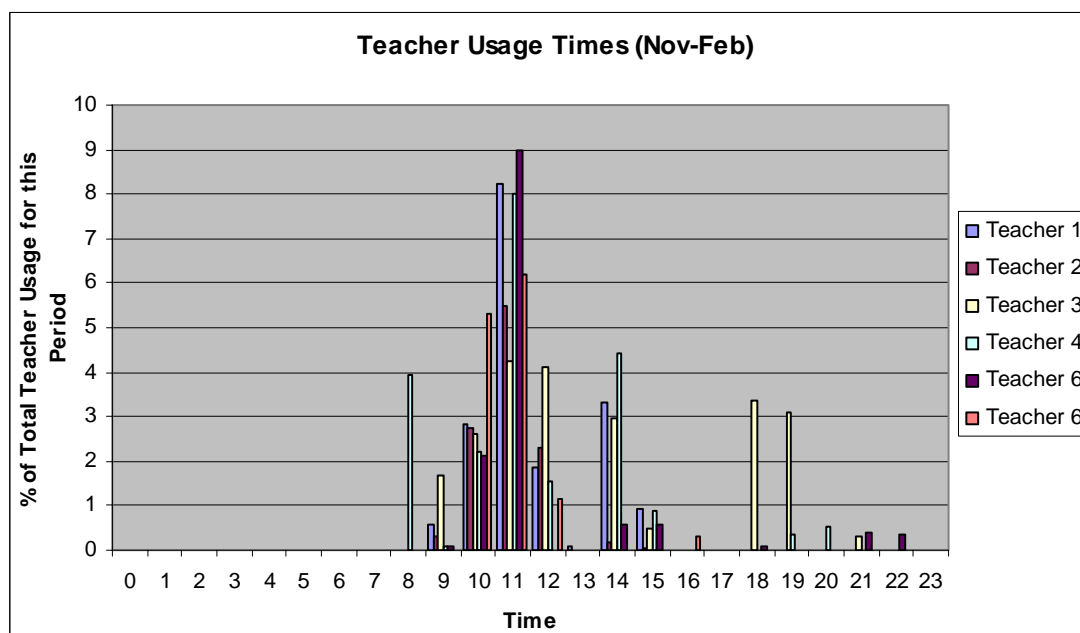


Figure 13: Times of day that teachers accessed the VLE from February to June

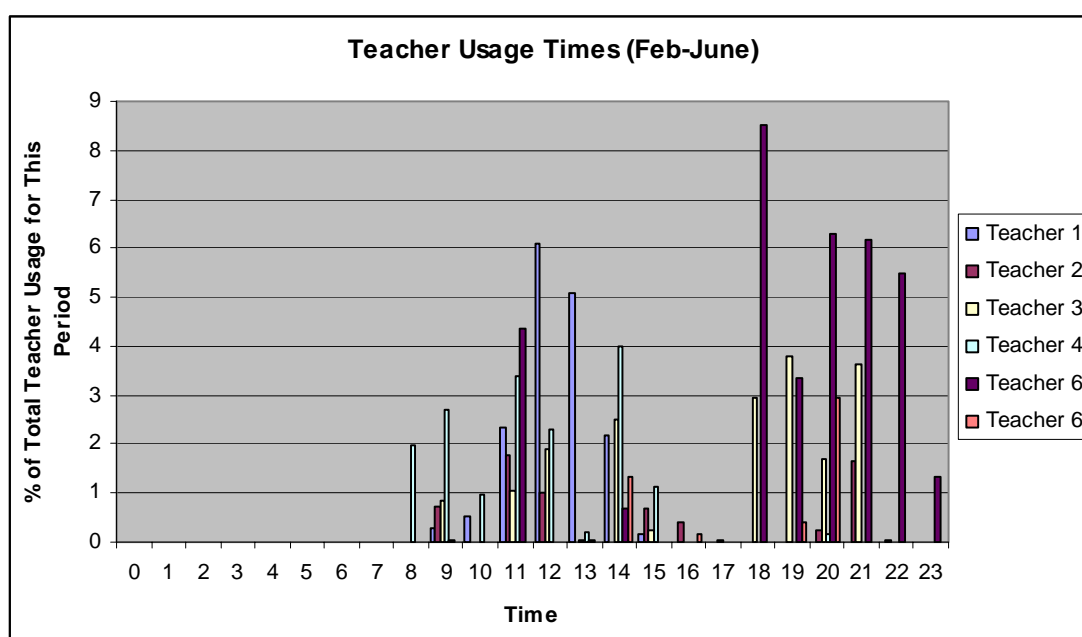
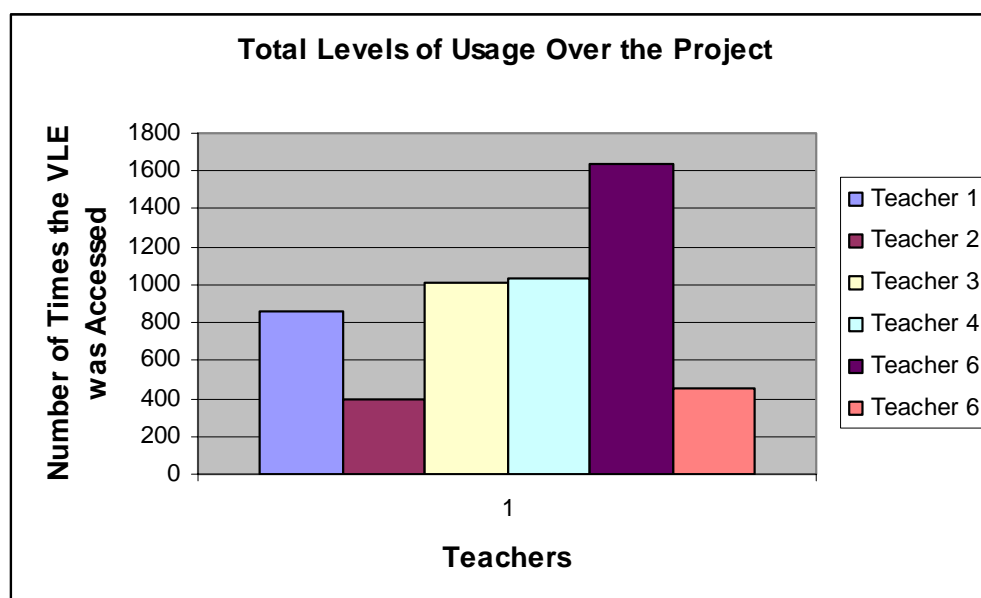


Figure 14 shows the pattern of usage by the teachers over the whole project.

Figure 14: Times of day that teachers accessed the VLE from February to June



Teachers' Objectives

In the early stages of the project much discussion went into defining the professional development objectives that the teachers aspired to achieve; or put another way, how they would benefit from involvement. The discussions culminated in a set of objectives that are set out in Table 1 below. Written against each objective is a brief comment on whether it was achieved.

Table 1: Teachers' objectives and the extent to which they were addressed

Teachers' Objectives	Achieved?
<ul style="list-style-type: none"> • Develop a greater understanding of computer systems. • Experience a new and positive teaching and learning environment. • Promote, support, extend, enhance and enrich the curriculum, through the use of virtual learning. • Facilitate greater pupil-controlled learning. 	<ul style="list-style-type: none"> • All of the teachers developed a greater understanding of computer and VLE systems but all would say they would have much more to learn • Most of the teachers would agree that they experienced this but reservations would relate to the large amount of time and effort used to create the environment • All of the teachers would agree that the VLE offered facilities for the pupils that significantly enhanced the curriculum area
<ul style="list-style-type: none"> • Develop the ability and opportunity to manage pupils' learning more effectively. • Respond to individual pupils' learning needs. 	<ul style="list-style-type: none"> • There were mixed views on this, some arguing that the pupils would never be autonomous learners while others recognized the pupils taking on full responsibility for various tasks and being much more engaged in ensuring the best quality of their own efforts. There may be a 'chicken and egg' situation here i.e. does the teachers' belief that the pupils cannot work autonomously prevent autonomous learning being fostered? • There was no evidence in the project that this objective was achieved. It was clear that much more familiarity with the environment (and the subject) would be required before it could be • There was no evidence of the teachers responding electronically to individual pupils' needs though lesson-based feedback was evident
<ul style="list-style-type: none"> • Develop multiple levels of literacy. 	<ul style="list-style-type: none"> • In one interpretation of this the teachers could be said to have developed more familiarity with novel interaction modes (discussion boards, drop boxes, banner announcements etc)
<ul style="list-style-type: none"> • Engage in career development. 	<ul style="list-style-type: none"> • Several of the teachers felt they had moved themselves on considerably in professional development and one of the group was promoted to coordinate citizenship teaching.
<ul style="list-style-type: none"> • Engage in training and development in the use of virtual learning environments. 	<ul style="list-style-type: none"> • This was an essential element of the project and was thoroughly addressed
<ul style="list-style-type: none"> • Provide the opportunity to use a variety of media types. 	<ul style="list-style-type: none"> • Populating and using the VLE resource base provided many opportunities to work with image, video, audio, presentation and other conventional forms (scanned newspaper articles, pamphlets etc) of information
<ul style="list-style-type: none"> • Use the VLE to assist in testing the pupils' learning. 	<ul style="list-style-type: none"> • This was not addressed primarily because the subject context and its unfamiliarity to all concerned ruled it out as a possibility
<ul style="list-style-type: none"> • Provide learning that is more in line with pupils' knowledge of the digital world. 	<ul style="list-style-type: none"> • This was undoubtedly achieved. Pupils engaged in a learning environment that was thoroughly digital!

Teachers' Concerns

In the weeks prior to the teaching and learning phase (during February 2003) the teachers were asked about their concerns in relation to using the VLE in their classrooms. These concerns are set out in Table 2 along with a brief comment on the extent to which the concerns proved valid. As the sections following the table will demonstrate, some of the concerns were indeed valid.

Table 2 The extent to which teachers' pre-implementation concerns proved valid

Concern	Valid?
<ul style="list-style-type: none"> • Level of ICT skills of the target group of pupils 	<ul style="list-style-type: none"> • The pupils quickly grasped the navigational environment and the PowerPoint skills necessary for the final task. Indeed the PowerPoint presentations were judged excellent by all concerned
<ul style="list-style-type: none"> • Teachers' own level of ICT skills 	<ul style="list-style-type: none"> • All of the teachers managed to hold their own technically and would have been quite modest about the extent to which they were proficient. All of them acknowledged that they could benefit from more training
<ul style="list-style-type: none"> • Subject (citizenship) being outside their area of expertise 	<ul style="list-style-type: none"> • This remained a bit of a struggle for everyone throughout the project but much was learned. They were all extremely able teachers and the challenge was absorbed in their stride though perhaps not in as proficient a manner as their own styles and high standards would have demanded
<ul style="list-style-type: none"> • Development of a front-end interface that would capture the interest of the pupils 	<ul style="list-style-type: none"> • The group identified early on in the process that the interface was very unsuitable for the type of pupils. Indeed, a number of the group would argue that it was a very poor interface for any users, including teachers
<ul style="list-style-type: none"> • Changes in the teaching and learning context 	<ul style="list-style-type: none"> • This proved to be a very valid concern with difficulties ranging from technical problems in the classroom to unfamiliar circumstances in which the pupils faced away from the teachers. The comments following this table provide more examples of this kind of concern arising in practice
<ul style="list-style-type: none"> • Access to the computers and availability of computer rooms 	<ul style="list-style-type: none"> • Though timetabled, it quickly became apparent that the short one-period model of access was very unsuitable. Timetabling constraints for the most part did not allow the flexibility of changing or combining lessons but the principals and other senior management team members endeavoured to facilitate the situation as best they could
<ul style="list-style-type: none"> • Speed and reliability of computer connections 	<ul style="list-style-type: none"> • This was a continuing problem, caused largely by the security systems used by the schools to ensure the machines and networks were not used inappropriately. A common problem was the system logging out users after waiting times had been exhausted in a queuing system
<ul style="list-style-type: none"> • Reaction of other teachers within the school, who also require computer room access 	<ul style="list-style-type: none"> • In some instances tensions arose in relation to other teachers wishing to use the computer rooms only to find that they were being used by the project. However, for the most part the project activities were facilitated by all concerned
<ul style="list-style-type: none"> • Support from senior management to ensure time is given to participate in full 	<ul style="list-style-type: none"> • As above, senior management gave as much facilitation to the project and the teachers concerned, as was possible

Project Interactions

One-to-one communications between pupils tended to be with other pupils with whom they were friendly. All discussion board messages were one-to-many and sometimes attracted many-to-one responses. In the group page discussion boards, pupils could communicate only with other group members and in these areas the level of one-to-many-to-one communication was more the norm, as was the increased complexity and purposefulness of the exchanges. Communication within the group pages was task-related in almost every case unlike those in the main discussion board, which were more general and conversational. The group page

environments appeared to provide an element of security for those pupils who might have been less confident communicating with a larger group of users.

There was very limited evidence of pupil-to-teacher communication or of teacher-to-individual pupil communication via the discussion boards. Surprisingly, perhaps, the teachers opted to give feedback only in class. If responding electronically at all, it was in the form of a message to all pupils on the discussion board (particularly in the case of requests to desist from inappropriate communications).

Internal Pupil-Pupil Communications

After much discussion among the group, the teachers agreed that it was important to monitor all exchanges between pupils. The underlying reasons included:

- Given the age of the pupils concerned, it was felt that they might act up if they knew the teachers were not monitoring their e-mails.
- The cross community nature of the project worried some teachers in the sense that something might flare up in the communications. They felt that the project was tight enough for time without clouding its main purpose with other issues that could create difficulties or distractions. They opted for preventative measures, rather than having to deal with situations where they would not have access to all the necessary information.
- Teachers felt that if a confidential alternative was offered, pupils would probably not use the discussion board, knowing that it was monitored.

The use of the discussion boards therefore allowed all the advantages of e-mail communication with the benefit of being monitored by teachers. This facility was essential for the various inter-school groups to communicate.

Even within the discussion boards there were examples of inappropriate exchanges. For example in the exchange below two pupils discuss their plans for the weekend, which included 'drinking'. While teachers believed that this was a group of pupils trying to look 'cool' to the other pupils, they were concerned about the effect this type of comment would have on other pupils. The first pupil wrote:

Current Forum: Coffee Bar
Date: Fri Jun 6 2003 10:09 am
Author: *****
Subject: Re: *****

i was in the shopper last nite then i went lookin for ***** what r u wearing to look-4? r u drinkin after look-4 [*Look4 is a disco*]

The other pupil responds by saying:

Current Forum: Coffee Bar
Date: Fri Jun 6 2003 10:11 am
Author: *****
Subject: ***** love

Hey girl im wearing a wee skirt and a wee top why where u looking for *****? i mite be but if i am then im drinking it before i go in r u drinking 2-nite? where r u going r u going into *****? wb love ya ***** xoxox

The reply to this was:

Current Forum: Coffee Bar
Date: Fri Jun 6 2003 10:20 am
Author: *****
Subject: Re: hey ***** from *****

just say your stayong in my house and stay in the crib it will be a laugh i swear when every one is wiped out **

Teachers were concerned that the pupils did not fully understand that they could monitor all exchanges but one pupil offered a warning!

Current Forum: Coffee Bar
Date: Fri Jun 6 2003 10:22 am
Author: *****
Subject: Re to ***** from *****

get it out of you love your not ment to say your drinking because the teachers

Teachers felt that other more innocent exchanges were just as inappropriate in the context of a shared area in which several groups of pupils were working together. For example, the following examples were addressed with their authors:

Current Forum: Coffee Bar
Date: Fri Jun 6 2003 10:21 am
Author: *****
Subject: *****

ALRITE SMELLY PANTS

Current Forum: Coffee Bar
Date: Wed Jun 11 2003 9:33 am
Subject: Re: to *****

**** you are ugly and you smell

While pupils considered this type of exchange a joke, teachers felt that more extensive coverage of 'netiquette' in the 'Introduction to Online Learning', which they had covered with the pupils before the sessions began, might have reduced its incidence.

As the project progressed there was a significant improvement in the length and quality of exchanges among pupils. At the outset pupils made very brief introductory statements, for example:

Current Forum: Coffee Bar
Status: Archived
Date: Wed Mar 12 2003 9:42 am
Author: *****
Subject: Re: Welcome

Hello im ***** who all is out there???

Current Forum: Coffee Bar
Status : Archived
Date: Thu Mar 13 2003 9:26 am
Author: *****
Subject: **** and *****

hi this is ***** and ***** what you up to?

Communication quickly developed, though, and much longer exchanges were being made between pupils across the three schools. However, even the longer exchanges remained somewhat superficial in the general discussion forums:

Current Forum: Coffee Bar
Status : Archived
Date: Thu Mar 20 2003 9:39 am
Author: *****
Subject: to ***** at *****

hi my name is ***** how is school with you what ya up to have you been talking to the boys yet what football team do you like what subject do u like at school i like the football team glentoran w.b *****

Exchanges that included the sharing of ideas and collaboration to improve the final outcome remained largely between group members from the same school.

Current Forum: PowerPoint
Date: Wed May 28 2003 10:10 am
Author: *****
Subject: hi

hi this is ***** I am finsed my power point I think it is good so go and have a look and tell me if it is good *****.

Current Forum: PowerPoint
Date: Wed Jun 4 2003 9:22 am
Author: *****
Subject: hey

hey i think your powerpoint is good, i think there is good colour and it is interesting very good my kid lol

But there were some attempts to engage with all group members, for example:

Current Forum: Group Discussion & Coffee Bar
Date: Fri May 2 2003 1:19 pm
Author: ****
Subject: The PowerPoint Presentation

OK everybody - there is only a few weeks left - what are we going to do??
We have to start our work today - i will begin the powerpoint and send it to you all...you can add on to it and give your suggestions!!!

Current Forum: Group Discussion & Coffee Bar
Date: Fri May 2 2003 1:30 pm
Author: *****
Subject: Presentation

***** and ***** here we will concentrate on child soliders and send it to you's to have a look at.
Let us know what areas you are looking at?

A brief exchange from one group read as follows:

Current Forum: Group Discussion
Date: Wed May 14 2003 9:48 am
Author: *****
Subject: Started

***** your powerpoint is very good.

The dark blue is hard to read on the black background.
Will we make the writing lighter or the background lighter?

Current Forum: Group Discussion
Date: Wed May 28 2003 10:19 am
Author: *****
Subject: almost finished

I've looked at your work it looks great - hope you don't mind I made some changes and added some slides I think it looks great !

Current Forum: Group Discussion
Date: Thu May 29 2003 11:00 am
Author: *****
Subject: THE FINAL VERSION

HI WE HAVE ADDED THE POWERPOINTS TOGETHER AND IT IS LOOKING VERY GOOD.

Other exchanges between pupils proved of specific interest. For example, a disaffected pupil in this case is gaining confidence and has tried to log on from home for the first time and left a message for their friend to read.

Current Forum: Coffee Bar
Date: Fri Jun 13 2003 4:53 pm
Author: *****
Subject: RE

Hi ***** It Is ***** I AM IN MY HOME I WILL SEE ON MONDAY

Pupils' External Communications

One of the objectives set by the teachers for the VLE was that it should expand the learning environment outside of the classroom. Two external experts were therefore invited to contribute to the project. These were: Professor Brice Dickson, the Northern Ireland Human Rights Commissioner, who acted as an expert in the area of Human Rights, and One World Centre representative Roisin McLaughlin, who acted as an expert on the United Nations Convention for the Rights of the Child.

Two of the six teachers planned fully for the integration of the outside experts into their lesson plans while others took a more ad hoc approach. The pupils in the former teachers' group engaged most successfully and over a longer period though it should be emphasized that other pupils also communicated effectively about areas in which they were interested. Exchanges with the Commissioner contributed significantly to the planned objectives of assisting pupils to develop a better understanding of the world around them and to relate global issues to their local environment.

The discussion board exchanges among pupils and the Commissioner for Human Rights were significantly longer and engaged with the issues to a greater extent than they did in discussion between group members. Although pupils were asked not to use text language in these exchanges, they seemed to feel more comfortable in so doing. The Commissioner responded in an appropriately informal register, thereby strengthening the ease of communication. Towards the end of the teaching phase, opportunities were organized for the Commissioner to visit the schools. This consolidated the relationship built up in the communications and in one school following the visit, some pupils reported hearing 'Brice' on the radio, using first name terms!

A selection of the exchanges is presented below to illustrate the type of discussion that built up over a number of weeks (pupils names are presented as asterisks). Several topics of interest were in the news at the time and this helped to initiate conversations in the classroom and discussion on the VLE board.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed May 28 2003 9:57 am
Author: ***** ***, *****
Subject: Child Soldiers

A child is anyone under 18. This means that 16 year olds in the army are Child Soldiers. Can these young people be sent to war?

The reply from Professor Dickson was as follows:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:16 pm
Author: Dickson, Brice
Subject: Re: Child Soldiers

At the moment children under 18 can be soldiers, but in my view it would be better if international law prohibited this.

On the same theme another pupil asked:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed May 28 2003 10:18 am
Author: ***** ***, *****
Subject: Re: chat

Is there any children in northern ireland that fight in the war

with the reply:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:11 pm
Author: Dickson, Brice
Subject: Child Soldiers

In some countries children as young as 6 or 7 fight in wars, but in Northern Ireland no person under 17 can serve in the army. As far as I know, 16 year olds can join the army here but they are not allowed to enter into combat until they are 17.

Inputs from external experts, constrained by their daily roles, will often be on an asynchronous basis but this did not deter the pupils. The following exchange illustrates both the diligence of the external person and how the threads were continued:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Fri Jun 6 2003 10:05 am
Author: ***** ***, *****
Subject: Re: to the Child Soldiers

when you say children under 18 years old could be a soldier is that not to young should it not be over 18 years old thats what i think i agree with you

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland

Date: Fri Jun 6 2003 10:08 am
Author: ***** ****, *****
Subject: Re: to ****

do you think there is any children undre 18 that fight in wars i dont think its right do ya wb

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Fri Jun 6 2003 6:14 pm
Author: Dickson, Brice
Subject: Re: to the Child Soldiers

*****,
Yes, I think you're right. I think it would be OK to allow people under 18 to join an army provided they do not have to fight until they are 18 - they could do other things in the meantime, like learning about engineering and communications.
Brice

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Fri Jun 6 2003 6:17 pm
Author: Dickson, Brice
Subject: Re: to *****

*****,
I am sorry to say that there are thousands of children fighting in wars all over the world, but especially in Africa. Children as young as 11 have been filmed using guns in places like Sierra Leone in West Africa. Don't you think the adults in charge of them should be prosecuted?
Brice

And one reply during the next lesson, a week later was:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 11 2003 9:25 am
Author: *****_** **
Subject: Re: to brice
yes i do think that there parents should be prosecuted because they are letting young children at the age of maybe 10 years of age just to fight for there country and i think this should stop starting from now

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu Jun 12 2003 3:32 pm
Author: Dickson, Brice
Subject: Re: to brice

Come to think of it, many of the kids would be orphans, with no parents to look after them. I think it would be better if the older soldiers who recruited the kids to the army were the ones who were prosecuted.

Pupils also recognized that being involved in conflict can leave young people with physical and mental scars:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 11 2003 9:23 am
Author: *****_****, *****
Subject: children in conflict
children in conflict when there is shooting and it effects them is there anything over there for them to get over the cure it and what is it called???????????

There was evidence that pupils developed an understanding of policies in other countries and to a certain extent empathized with other young people around the world. They recognized that there are forces outside their control that have a direct effect on them.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu May 29 2003 2:50 pm
Author: *****_****, *****
Subject: Re: Northern Ireland Human Rights Commission

How do we protect a person under 16 in the world of work? They should get treated the same and given the money they a entitled to get!!!! wat do you think?

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu May 29 2003 2:52 pm
Author: *****_****, *****
Subject: Re: Northern Ireland Human Rights Commission

looking at local level how many in third year work outside da home and wat do they earn!!!!!!!!!!!!!!!!!!!!

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:34 pm
Author: Dickson, Brice
Subject: Re: Northern Ireland Human Rights Commission

*****,
I think children under 16 are already fairly well protected at work.
Have you heard of a situation where someone under 16 is not being properly protected?
Brice

Pupils also took the opportunity to comment on their own rights and freedoms as young people and the following exchange involved pupils from two schools (note the different days on which lessons were held)

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu May 29 2003 2:59 pm
Author: *****_****, *****
Subject: children

Why do WE have to DO wat adults SAY and DO wat THEY WANT us to do? Why arent we aloud to use our own MINDS and LIVE OUR way without any RULES!! We could still stay healthy.
PLEASE REPLY
CHIEF COMMISSIONER
Ps there could be some rules!!!

A pupil in another school added:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 2:41 pm
Author: *****_****, ****
Subject: Re: children

I think WE should have some freedom BUT on the same level we should have some rules because children now days need disciplin sorry about the spelling by ***** and ***** pls reply thank you

Note that in this e-mail, the pupil was offering an apology for the spelling of the pupil in another school. This type of thing did not go unnoticed and rankled some of the pupils concerned. The Commissioner's reply was:

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:50 pm
Author: Dickson, Brice
Subject: Bill of Rights

Have any of you heard of the Bill of Rights for Northern Ireland? The Human Rights Commission is preparing one for government.
Do you have any ideas as to what rights should be in it?
Brice Dickson

Pupils also discussed more controversial local topics, for example the problems that are associated with neighbourhood disturbances and punishment beatings. The following section comes from the one of longest discussions between a group of pupils from two schools and Professor Dickson.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu May 29 2003 2:46 pm
Author: ***** ****, *****
Subject: Re: Northern Ireland Human Rights Commission

how can we resolve punishment beatings in our neighbourhood for just messin bout in out houses and hangin bout the streets. Do we need community policing for young people or curfew like they have in America?

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 1:42 pm
Author: ***** *****
Subject: Re: Northern Ireland Human Rights Commission

why don't the police sort out the problems they should't hold back because it is paramilitaries that control the area i mean the paramilitaries think they can control young boys lives and then when the young boys go and break rules they expect them to suffer so i say the police should deal with them its the law and the law comes first.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 1:48 pm
Author: *****_****, *****
Subject: Re: Northern Ireland Human Rights Commission

the thing is u cant control the paramilitaries the have more wepons then the police thats is the problem but then again u have to stick to the rules and some times the paramilitaries are good for somethings say think they catch a joyrider they punish them which is good because they learn there lesson my ponit of veiw *****

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 1:54 pm
Author: *****_****, *****
Subject: Re: Northern Ireland Human Rights Commission

your right but parimiltity's expect to control everyone
we need to make this world a happier place to live witout worrying about who's getting shot next.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:20 pm
Author: Dickson, Brice
Subject: Re: Northern Ireland Human Rights Commission

I think punishment beatings are a terrible thing, whatever it is that the victim is meant to have done.
If someone is suspected of having committed a crime they should be dealt with through the proper criminal justice system.
Community policing is a good idea, provided there is broad support for it in the area. It would be good if young people themselves, like you, could get involved in community policing.

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Wed Jun 4 2003 4:25 pm
Author: Dickson, Brice
Subject: Re: Northern Ireland Human Rights Commission

*****,
I agree with you absolutely. A society only works properly when law and order are preserved.
If everyone was to take the law into his or her own hands there would be chaos.
I think the paramilitaries are the biggest abusers of human rights in Northern Ireland.
Brice

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Thu Jun 5 2003 9:34 am
Author: *****_****, *****
Subject: Northern Ireland Human Rights Commission

but the police usually dont get involved in punishment beatings and i think it would good to be able to get children at r age to get involved in community policing
***** and ***** thank you

Current Forum: The Chief Commissioner for Human Rights in Northern Ireland
Date: Fri Jun 6 2003 6:21 pm
Author: Dickson, Brice
Subject: Re: Northern Ireland Human Rights Commission

***** and *****,
So do I. Why don't you contact the Belfast District Policing Partnership at the City Hall and ask them to set up a group where young people could get involved in community policing? I can help you to do that if you are interested.
Brice

Teachers' Perceptions³

This section recounts the teachers' perceptions of various aspects of using a VLE in the classroom including:

- Learning
- Assessment
- Collaboration and communication
- Teaching
- Teachers' skills
- Interaction and the teaching environment
- Planning
- Access
- Time
- Discipline

Learning

Learning in an on-line situation is poorly understood by most educationalists primarily because it is unfamiliar to the vast majority and its pedagogical models are under-researched. The concept of virtual learning itself is perhaps unhelpful and misleading as its 'virtual-ness' might suggest that the pupils are simply left to get on with it, so to speak. Evidence of this was provided in instances when normal teaching activities such as questioning and feedback were significantly reduced.

The pattern of teaching across the project raised sufficient concern for the research team to provide a professional development session on 'blended learning'. This was felt essential to ensure that more traditional and appropriate teaching approaches were not set aside simply because the pupils were engaged in a virtual learning environment. As the project progressed, the teachers recognized the importance of blending traditional teaching with the VLE activities as the following comment indicates:

A mix of classroom and VLE would have been good – to stimulate group discussion or assess understanding (Teacher 5)

The virtual learning environment was argued to be less suitable for some pupils than others:

Pupils found it difficult to read material from a screen and to digest it (Teacher 5)

Certain pupils also seemed not to want to engage with technology, in contrast to their normal reaction to conventional lessons:

I found one pupil acted up a lot. In a normal lesson this pupil would never act up (Teacher 6)

Independent learning was observed in the particular context of pupils taking on tasks within a group activity and accepting responsibility for them:

In most of the groups [the VLE] promoted some aspects of "independence" in that task allocations etc. allowed students to take greater responsibility for the quality of work produced (Teacher 1)

Pupils were in control of resources – their accessing of them and decision making in their use (Teacher 1)

³ The comments arise from formal interviews which were carried out variously in individual, pair, threesome and whole group modes, and from written responses in questionnaire surveys.

But several teachers echoed the sentiment expressed here:

Our children are not independent learners, no matter if the government want them to be or not (Teacher 5)

This reaction points up one of the factors that may hinder pupil learning in VLE contexts, just as much as it might in conventional classrooms i.e. at least some of the teachers held the view that the pupils could not learn independently to the extent, perhaps, that they had not felt it worth trying to promote. To emphasize the point, some teachers reported being pleasantly surprised on a number of occasions by the extent to which some pupils took control of their own learning, though the majority of pupils in each group did not.

Control of learning was limited – although higher ability pupils were much better at this. More structure was necessary for this particular class (Teacher 3)

There were a number of references to the type of learning that was achieved e.g. that unlike the normal teaching they would normally receive, it was fairly superficial:

From what I could see they were transferring lumps of material. It felt like just a PowerPoint with not enough interaction. At their age, they need understanding of the issues and firm learning (Teacher 6)

The VLE doesn't provoke the same thinking process as traditional lessons (Group comment)

The emphasis on the technology was felt to distract the pupils, to some extent, from the curricular learning objectives:

The focus was ICT rather than the human rights content (Teacher 6)

Though its motivational effect was also argued:

[The VLE motivated pupils]...most pupils embraced the project from week1 (Teacher 1)

The VLE raised their self esteem and they enjoyed experiencing new technology – they felt proud of this involvement (Teacher 3)

Little evidence was observed, however, of adjustment in the teaching approach to take account of the distracting influence of ICT motivational factor. It also appeared to have had an impact on the teachers, who struggled to understand how to deliver the content in the unfamiliar VLE context but were keenly aware that the subject area, citizenship, was also not theirs:

Subject knowledge is limited as citizenship is not directly related to the subject we [normally] deliver (Group comment)

At the start of the project the teachers were encouraged to identify the pupil learning objectives they would be hoping to address during the project. The following table, Table 3, sets these out along with a commentary on the extent to which they were achieved.

Table 3: The extent to which the teachers' learning objectives for pupils were achieved

Learning Objective for Pupils	Achieved?
<ul style="list-style-type: none"> Learn to use procedures to assist with the process of investigation and research. Analyse (research, read and process) information about a chosen theme within the 'Human Rights of Young Adults' framework. Increase their motivation to learn through group work and increased motivation due to the inclusion of the technology. 	<ul style="list-style-type: none"> This was fully achieved within the VLE. Pupils were able to search the given websites and more widely on the Internet to select their own material in completing their tasks and constructing their presentation. The mini-tasks and final task were all based on the three target areas of human rights
<ul style="list-style-type: none"> Develop creative and expressive ideas. 	<ul style="list-style-type: none"> There were mixed views about this but the stronger view was that the ICT did motivate most of the pupils (especially the less 'able' and 'disaffected'). However, this motivation was towards ICT skill development rather than citizenship. There was also some evidence that some of the pupils were not enamoured of the technology with at least one pupil not behaving in their normal amenable fashion, possibly as a protest against not having conventional teaching The final tasks were executed to extraordinary levels of quality and expressiveness. This might have been expected of some pupils but the work of those from whom the teachers and indeed principals might usually have expected little, confirmed the solid achievement of this objective
<ul style="list-style-type: none"> Focus on aspects of their learning (to achieve high standards). 	<ul style="list-style-type: none"> The achievement of this objective was noted by several teachers: the determination of some pupils to ensure their work was as good as they could do it. The context of being in a 'community of learners' undoubtedly facilitated the efforts, but an edge of competition provided the additional impetus to make them so good.
<ul style="list-style-type: none"> Identify areas where they need to make an additional effort Access additional information about their performance from the system. Foster independent learning styles and experience diversity of learning. 	<ul style="list-style-type: none"> This objective was never unpicked The pupils were able to check whether their work had been registered but no grading system was in place to require this type of facility to be provided The diversity in learning was evident inasmuch as the learning context often mixed different discussion modes (e.g. electronic and verbal, pupil-pupil and pupil-external expert etc) and the content matter took the pupils into international issues and resource bases. Independent learning was not considered by all teachers to have been achieved though aspects such as taking personal responsibility for specific tasks within a team and for the quality of elements of the tasks were noted
<ul style="list-style-type: none"> Discuss the effect that socioeconomic issues have on the area of human rights. Justify their opinion on a theme orally and in writing. 	<ul style="list-style-type: none"> This type of electronic and verbal discussion was part of the learning in which the pupils were engaged The e-mail dialogues to some extent demonstrate this but the writing would not have been extensive. The e-mails are arguably, of course, a proxy for oral expression.
<ul style="list-style-type: none"> Acknowledge/identify/explain examples of stereotypes, injustice, prejudice and abuse of human rights. 	<ul style="list-style-type: none"> Again there was evidence of these types of concepts and activities being addressed in the discussion board dialogues, particularly in the group pages, in exchanges with the Commissioner and in the preparation of the PowerPoint presentations
<ul style="list-style-type: none"> Discuss and debate the issues and themes they have researched. Demonstrate their ability to take part in school and community based activities and discussions. Empathize with the experiences of others and express or explain views that are not their own. Create procedures that will allow group work to be carried out in an agreeable and structured format. 	<ul style="list-style-type: none"> As above As above As above Task allocation within the groups overall worked smoothly and efficiently though some tensions existed over instances of unkind criticism between pupils in different schools. Those in the same-school sub-groupings were always more cohesive if for no other reason than they were meeting together in the same lesson while the members in other schools were working in different lesson times and days

Table 3 The extent to which the teachers' learning objectives for pupils were achieved (cont'd)

<ul style="list-style-type: none"> • Design, produce and present information in an appropriate way for their peers. • Communicate with one another using a range of electronic tools, including text, sound, graphics and images. • Analyse critically their findings. • Predict consequences and suggest possible outcomes to overcome breaches of human rights. • Reflect on the process of participating in a project beyond their immediate environment. • Develop mastery and pace of their own learning. • Develop skills of enquiry and communication (oral, aural and written). • Recognize their responsibilities as an individual and to take accountability for their actions (in and outside the school environment). • Improve their concentration and engagement, (motivate them to learn with greater enthusiasm) improve their approach, attitude and attention to tasks. • Experience a more demanding and mature form of study (by encouraging pupils to contact outside communities). • Develop skills of participation and responsible action. • Prepare themselves for living and working in an increasingly information-rich society. 	<ul style="list-style-type: none"> • This was fully demonstrated at the end of the project and in various ways during it • This was fully accomplished in a technical sense though there would be room for improvement in the quality of the large majority of exchanges especially in the Coffee Bar and general discussion board areas • There was an element of analysis in some of the work but the ICT was considered by most of the teachers to consume most of the pupils' thinking and learning. • This type of learning objective was achieved in some of the discussion dialogues but with a limited number of pupils • There was an element of excitement among the pupils in being able to discuss issues with prominent experts outside the school • As above under independent learning. For some of the pupils the final rush to complete the presentation was quite a challenge and induced a level of stress • Aside from the quality of the English used, the skills of enquiry and expression were reasonably addressed in the group working. • This remains to be seen • No evidence was gathered on this issue outside of the VLE context • This was achieved in the context of discussing human rights issues with the external experts • Commitment to participate was high among most of the pupils though a small number of pupils were prone to be less responsible and engaged than the large majority. • This remains to be seen
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Assessment

One of the decisions by the teachers at the outset of the project was that it would be unfair to assess the pupils in a conventional sense (i.e. test them) on their learning in this type of project. The technological context was complex, still to be developed and completely unfamiliar to the teachers. The curricular area was as much an unknown to the teachers as it was to the pupils. Perhaps more to the point was the fact that the short 10-week two periods-per-week duration of the teaching/learning phase of the project was considered unlikely to enable learning outcomes to be measured. Teachers of the lowest performing ('disaffected') group were also concerned that inappropriate comparisons might be drawn across the range of pupils with a corresponding de-motivating effect on their pupils.

Continuous assessment was, however, a more profitable prospect. Teachers found the VLE's digital drop box a very useful tool in monitoring the progress of pupils.

Digital drop box allows continuous assessment of pupils work step by step by teacher (Teacher 4)

The teachers could also use the file exchange facility in the group pages to monitor all pupil progress, with out pupils sending the files to them:

Excellent opportunity for teachers to have constant access to pupils' assignments (Teachers 2, 3 & 4)

Some of the teachers considered it easy to monitor the progress of pupils and saw the benefits of not having to carry work or assessment tasks home to grade. Other teachers were less enthusiastic, finding it difficult to log-on to the VLE outside school and not having the advantages of fast and easy Internet access.

Collaboration and Communication

The level of interaction between teachers and pupils across the three schools was low and on reflection might have been improved with a more concerted effort to arrange parallel class times, which would have allowed the pupils time to chat in synchronous discussion. This chat time was not available during the lessons, when the teachers were striving to achieve other learning objectives. There was, however, much evidence of chat, collaboration and exchange of resources. For example, the pupil groups, drawn from across the schools, planned their presentations in a very mature and confident way. This was also noted by the teachers:

Pupils shared workload across the schools (Teachers 5 & 6)

[There was an] equal amount of effort from all pupils within schools and across the schools (Teachers 5 & 6)

But the difficulties for the teachers in working across the three schools was also commented upon:

It was hard to work cohesively between three schools (Teacher 5)

While the teachers did not all engage with the communication tools in the VLE fully, those that did were impressed with the additional value it brought to their classroom environment. The benefits were identified as introducing the pupils to a new on-line community:

[The VLE was] most effective ... at introducing pupils to on-line communities (Teacher 1)

[The VLE offered an] ... opportunity for discussions appropriate to subject (Teachers 2, 3 & 4)

In addition to the new community comprising the school groups, the pupils also had the opportunity to expand their learning by asking questions of an expert in the 'hot seat'.

The 'Hot-Seat' was an excellent opportunity to talk to real people connected to the subject (Teachers 2, 3 & 4)

One of these was the Commissioner for Human Rights, Brice Dickson.

[The VLE was] a good introduction to Brice Dickson and the other two schools. But it has to go much further in future VLEs (Teacher 3)

This opportunity for pupils to engage with someone other than the teacher clearly helped to develop communication skills and there was evidence that the exchanges with the Commissioner were significantly longer and subject specific than exchanges with others.

Pupils' Skills

In relation to pupil usage, the teachers made a variety of observations ranging from the difficulties experienced by some pupils:

Pupils who are not comfortable communicating through text will have difficulty using the VLE (Teacher 2)

Usage is affected by more than lack of ability and lack of confidence, there is also lack of interest (Teacher 4)

It may have been beneficial to have more time on the issues before going on-line. Year 10 need much more support. They cannot self-teach (Teacher 1)

Pupils did not have the ability to read the content. They were not able to respond (Teacher 3)

Pupils are not able to read from the screen (Teachers 5 & 6)

... to the motivation and engagement that the VLE promoted:

One pupil was normally so disengaged. I didn't think she would have the ability to communicate the way she did. Normally she is not interested in what is going on (Comment from one teacher in a group interview)

Low ability children did engage better and achieved more in the VLE context (Teacher 3)

One low ability pupil logged on at home, told their friends. Seldom is a pupil like this engaged (Teacher 3)

Generally all teachers felt that the ability and skills of the pupils had an influence on the confidence and speed at which they used the VLE. Having said that, the pupils seemed to develop relevant IT skills very quickly:

The pupils were supported by C2k and were immediately comfortable with the use of the VLE (Teacher 5)

Pupils needed taught only once how to do something on the VLE – they were very proficient (Teacher 5)

The teachers also stated during discussion that they found the pupils of all abilities were able to navigate easily through the VLE and find the information, articles or images that they needed to support their presentation:

Low ability pupils are able to use ICT and the VLE (Teachers 5 & 6)

At one stage a pattern was detected in the selection of similar images from a folder. The pupils may have preferred these images or may have opted to do what everyone else was doing. However, the patterns were investigated and the pupils were confirmed to be researching independently and not copying from other presentations ...

... though some 'piggy-backed' on [the work of] more able pupils (Teachers 5 & 6)

Teaching

All of the teachers recognized that a different teaching approach or style was required in a VLE context but did not have the time, in this short project, to experiment in any significant way with their own teaching style. One teacher did make something of a transition, experiencing:

A 'letting go' of control [to become] a facilitator, a mentor, a tutor (Teacher 1)

Another teacher experimented but quickly retreated to a 'safer', more conventional approach:

I tried to acquire a different teaching style. However, I noticed more discipline problems (Teacher 6)

This same teacher held to a more didactic perspective:

I like the control [I have in a normal class]- I dictate the pace, the activities, all prepared for the lesson. I was somewhat at a loss [in a VLE context] as they sped from one screen to another (Teacher 6)

In my class I am (normally) the only one up and around. If someone needs something, they put their hand up (Teacher 6)

Listening to the problems and issues raised by their peers, the teachers who used a team-teaching method felt they had a distinct advantage. They did not experience many of the problems because the team teaching situation allows greater flexibility and response to pupils' needs:

[Team teaching is] ... definitely beneficial. It might be because it was a disaffected group .. they are very demanding .. it takes two just to answer the questions (Teacher 4)

Pupils find it difficult to navigate. Team teaching is essential, yet still has to be conducted in the confines of the school day (Teacher 3)

Individual help on machines was beneficial to pupils. But in a very artificial environment (Teacher 3)

It must be borne in mind, of course, that many teachers will not have small classes at key stage 3 (even the largest group in the project, 18, may be smaller than average) and that team teaching requires considerable staffing and organizational changes. Teachers who did not team-teach found it difficult to work cohesively and to present an organized and well planned front to pupils. Some difficulties in terms of the two teachers in each school simply communicating and collaborating were evident:

Additional pressure to monitor and communicate about progress (Teachers 5 & 6)

Also difficult to consider the other teacher and the progress they made during their lesson, this usually impacted on your lesson (Teachers 5 & 6)

Although there was a broadly positive perspective on the use of VLEs as learning and teaching environments, only one teacher was strongly positive about using them in the future.

VLEs have a lot of potential and can be relatively easily interpreted into normal teaching provision (Teacher 3)

Teachers' Skills

Teachers in any project will experience a degree of concern in entering a process about which they know little. The sense of exploration and experiment, illustrated by the following comment:

Initially I felt very excited and enthusiastic. I have always felt that a tool such as a VLE could be very useful in teaching both in terms of the pathway provided for study and the obvious visual attraction for pupils...especially lower ability pupils (Teacher 2)

... is often tempered by concerns about additional workload and unfamiliar activities. The VLE project had the potential to double the problematic impact of these perceptions inasmuch as the teachers had both to master a new subject area, citizenship, and a radically new way of facilitating pupil learning, a virtual learning environment:

My feelings were mixed with worry and fear about Blackboard because it is an intricate program (Teacher 3)

Right from the outset, the teachers indicated that they were concerned about their own lack of VLE skills. All of them had completed their NOF training but this did not necessarily help them to feel confident in the use of computers, the Internet or the VLE:

I am NOF trained, but these skills are not relevant (Teacher 6)

This same teacher commented that a different set of skills and a higher level of proficiency were required to cope with the demands of teaching using a VLE:

Those with limited computer skills were disadvantaged because they were too slow (Teachers 5 & 6)

The self-perception of having limited skills appeared to have a negative influence on this teacher's engagement with the project:

With limited IT skills, I have always felt 'the outsider' in the project (Teacher 6)

As time went on, this person distanced themselves even further from the project's main impetus and from the other teachers. As pupils worked to complete the task, this teacher

... concentrated on the 'A' level group and 101 other concerns. I felt disappointed and de-motivated – at an ICT level and citizenship level (Teacher 6)

The other teachers appeared to cope well with navigation through the VLE but a grasp and use of the more sophisticated aspects of Blackboard remained quite low throughout the project. When questioned about the low usage level among teachers, one teacher commented that there was a general "lack of ability and lack of confidence" (Teacher 2) while, in the context of monitoring the discussion board, another teacher's comment challenged this view:

I was never off the thing (Teacher 5)

While comments about the professional development training provided for the teachers (by C2k and the research team) were generally positive:

The training and development (in VLE) was very informative and useful (Teacher 3)

at least one teacher had the feeling of being left to make their own way after only one training day:

It was like: There is the VLE - go for it! – independently (Teacher 6)

Later this same teacher changed their mind and felt that the ...

... project was strongly supported by C2k, with three consultants working with the teachers and providing training (Teacher 6)

Teachers also commented about factors which affected their training. One teacher felt there was an expectation that teachers were already at the necessary skills level but another teacher missed a training day and felt they got behind the others.

A process that took much longer than was perhaps expected was the teachers' development of an understanding and knowledge of the content within the VLE. Most of the teachers felt they did not have the time to do this and that in order to develop a full understanding of the potential of VLEs, a much longer period for preparation is required than the three months allowed (which included the Christmas period).

A much longer period for preparation is necessary. Running for one year before it is used with pupils the next (Group comment)

I am now wary of how well setup a VLE would have to be before I used it, i.e. if I had to use a VLE it would need to have everything setup and ready to go because I wouldn't have the time to develop it (Teacher 2)

The teachers were not keen to take more work home or support pupils after school hours. They realized that additional support was required for pupils, particularly in monitoring usage, but were generally not keen to give up their own after-school time to facilitate this:

Monitoring the exchanges is an important job, but one that teachers are not prepared to do in their own time (Group comment)

The communication area needs constant monitoring for obscene comments. (Teachers 2, 3 & 4)

Interaction and the Teaching Environment

The teachers made a variety of comments with regard to the structure of the classroom and teaching environment, some of which are presented here. One pressing issue was the fact that the pupils were generally facing away from the teachers:

The pupils are not looking at you (Teacher 2)

An IT suite is very different to your own room... the kids sit with their backs to you. What type of lesson would I teach with the kids with their backs to me (Teacher 2)

In traditional teaching the group is facing you...computers destroy that classroom sense (Teacher 2)

Social interaction is lost because the pupils are not facing you (Teacher 3)

Room layout, yes, constantly saying, "Turn around, take your hand off the mouse, stop clicking and listen" (Teacher 4)

Some also perceived a loss of person-to-person interaction ...

I think you need to interact more with the kids, some of the software might encourage you not to (Teacher 3)

The computer room layout reduced social interaction and discussion (Group comment)

One-to-one reflection, personal attention and the connection between people cannot be replaced by a VLE (Group comment)

but others saw the environment as promoting one-to-one support:

Pupils love it when you sit with them. They are getting one-to-one attention. There is a positive interaction (Teacher 4)

However most of the teachers recognized that a different style of teaching and learning was developing. There was evidence of more pupil-pupil interaction, with more opportunities than would be normal for discussion and evaluation of work, for both the better performing pupils and the 'quieter' pupils:

Better pupils were highly motivated and wanted other pupils (in their own class) to see their work (Teacher 5)

Some of the quieter pupils interacted quite well (Teacher 2)

Planning

The importance of planning and preparation in the success of each lesson and ultimately the success of the project, was often mentioned by the teachers. There were many struggles as indicated by the following range of comments:

Creating resources needs time. (Teacher 1)

The VLE is a ... completely blank canvas ... research to be found – vetted – time consuming (Teacher 4)

Research (content) had to be found, vetted and catalogued onto the VLE. Websites were too text orientated, not suitable for key stage three pupils (Teachers 2, 3 & 4)

Familiarity with the subject area, and not only the VLE, presented planning and preparation problems, which were not always resolved:

I had to familiarize myself with something new and it was time consuming to feel comfortable with material and the VLE (Teacher 5)

The lesson was hard to time (Teachers 5 & 6)

Staff had a very limited knowledge of subject area – involved a great deal of research before the project began (Teacher 4)

One teacher complained forthrightly about the assistance with planning and developing a scheme of work

No guidance to content (Teacher 6)

It was pointed out that it is not realistic to expect teachers to prepare their own on-line resources.

I would like to use a VLE. But it's too time consuming to create appropriate resources (Teacher 3)

The teachers who planned the classroom VLE activities and their own role in each lesson were observed to display little signs of stress in what, to a degree, was always an unfamiliar situation. They were more confident and comfortable with the project and had a clear vision of how it was developing for their pupils in each lesson. These teachers controlled the flow of the lesson and knew at all times what each pupil should be doing. The teachers themselves felt this:

The lessons where we had small steps planned, were better (Teacher 3)

Although the important role of the teacher and the blending of on-line and traditional teaching was discussed several times, teachers returned to the idea that the VLE would in some way take-over the role or aspects of the role of the teacher.

I think we will get to the stage where pupils only go to school four days a week [the other day being on-line] (Teacher 3)

The fact that teachers were operating in a new environment, with a new subject area using a new medium, reinforced for this teacher that planning and structure were important:

... there is a change from teachers teasing out the best from pupils to a loose environment with hundreds of images, text and all that jazz (Teacher 3)

The point was also made that the teachers benefited from lesson planning because it helped them to stay focused throughout the lesson and to meet deadlines, encouraging pupils to work at a reasonable pace:

Yes, you become determined to get through the objectives ... you move the pupils on (Teacher 4)

... greater structure within each lesson would allow more discussion and debate on the issues raised (Group comment)

Access

Access problems raised their heads throughout the teaching phase though the principals and other teachers (e.g. the ICT coordinators) made extra efforts to facilitate the work and encourage compromises on bookings. Virtually the only positive comments were reserved for access from home, for those who had it. For example:

I felt concerned about the level of support. Access from home had a very positive effect on my attitude and ability to stay on top of the developments in the VLE (Teacher 3)

For the most part there were grumbles and frustrations:

About the slow response levels:

The processor speed is slow it took 10 minutes to log-on every pupil. The speed needs to be investigated (Teacher 1)

Computers too slow – equals frustration by staff and pupils (Teachers 2, 3 & 4)

Log-on delays created problems in the initial weeks (Teacher 5)

Friday's class experienced huge time delays and problems (Teacher 5)

Pupils would have needed to work in their own time – to use discussion board (Teacher 5)

About timetabling the rooms:

There is only a brief window each week. It would be nice to have spent more time if it was available, yet also I would have liked to spend less time...it eats into your personal time. It is difficult to access the Internet during school (Teacher 3)

Timetable (rooms) already allocated to other subjects (Teachers 2, 3 & 4)

Room timetabling and room booking have been a concern. I am aware that the project has affected other members of staff, as access to the computer room has been limited (Teacher 3)

Room allocation within the school. Other departments had been already allocated time in the computer room and were unwilling or unable to change (Teacher 4)

For some teachers it was access to computer rooms, for others it was catching up with the other teacher (Group comment)

About technical difficulties:

Technical difficulties opening PowerPoint presentations (Teachers 2, 3 & 4)

Lesson 3 the VLE and the machine crashed, no paper (Teacher 6)

About costs of linking up at home:

... additional costs should be carried by the school (Group comment)

Time

Time was an issue to which the teachers returned repeatedly and with good reason. Time problems existed at all levels and in all activities related to the project: on-line activities were time consuming, there was a limited time in the school day to work on project-related needs and the duration of the project also limited time to complete tasks or activities.

The teachers commented that they would have liked to devote more time to the VLE, but that:

Priorities within school often prevent you from completing what you had planned
(Group comment)

The school environment is so busy that it is difficult to get time to talk and discuss the project (Teacher 3)

A teacher's priority is their exam groups (Group comment)

The teachers experienced a degree of stress under the pressure to deliver:

Knowing that you should spend more time on the VLE ... created stress, it became a burden (Group comment)

and commented on being forced to conceptualize their work as being:

... people-focused by day and task-focused by night (Group comment)

Work-life balance issues also came much to the fore:

You do feel guilty because you have to rank your family along with everything else in this job (Group comment)

You feel you are not able to devote the time needed to the VLE (Group comment)

Monitoring the exchanges is an important job and one that teachers are not prepared to do in their own time (Group comment)

All marking is currently done at home. In school there is no time for anything else (Group comment)

Teachers already do too much work at home (Group comment)

The teachers also commented on the limited time available during a single lesson:

Limited time in period to complete all areas or aspects of lesson and log books
(Teacher 4)

Need double class/period of time allocated (Teachers 2, 3 & 4)

Need double period of time allocated (Teachers 5 & 6)

... but two also commented on the management of the lesson itself:

The speed of the lesson is too quick. The pupils worked too quickly, you could not see what they were doing (Teachers 5 & 6)

Discipline

The general trend in the VLE lessons was towards an improvement in discipline for most pupils across the three schools. However some of the teachers observed isolated behavioural difficulties with a small number of pupils. One teacher expressed an opinion that the pupils could have played or acted up because they did not cope easily at the beginning with developing the skills and understanding required to navigate successfully through the VLE. Another teacher, who experienced an alteration in the behaviour of particular pupils, felt that perhaps absenteeism from the class and two pupils' absence from the joint schools' training day left those pupils feeling outside the group. The majority progressed together, forming relationships with the pupils in the other schools.

The teacher stated:

Three pupils alienated themselves and behaved very badly ... two out of the three had missed the training day (Teacher 3)

The fact that other teachers in the school (and the year head) did not experience a similar level of change in the behaviour of these pupils gives some support to the view that the behavioural difficulties were caused by their falling behind.

Two teachers felt that they had much less control in the classroom.

There is less control in the classroom (Teachers 5 & 6)

Pupils' individual, quiet and focused working was the normal classroom environment for one of these teachers. Pupils generally worked on short tasks and remained in their seats at all times. Overall, however, the VLE created a busy and sometimes noisy working environment where the pupils worked in groups to design and develop a presentation. This presented some problems for those teachers who were not comfortable in this mode of learning.

Teachers' Initial Perspectives on ICT and VLE Issues

At the outset of the project, all of the teachers completed an ICT access and skills-related questionnaire, designed to provide details on their access and current use of ICT. Only three of the teachers, at the start of the project, had access to a computer after school hours. Soon after this, two more managed to arrange access but only four had after-hours access to the Internet throughout the project. Five of them were able to use a computer and the Internet at school throughout the day but for three of them this meant having to make special arrangements, for example by booking a computer suite. One school provided computers with Internet access to teachers in a workroom beside the staffroom but it was pointed out that the speed of access to the Internet was so slow that it was difficult to make any real progress on development tasks during non-teaching classes or at lunch time.

Only one of the six teachers used the computer or Internet each day at school; the others explained that the lack of convenient access prevented any chance of daily use. All six initially described their confidence in using computers and the Internet as either 'average' or 'high'. After a short while, however, one of the teachers began to question their own competence, and reflected on what was perceived to be a lack of support. The teachers indicated that they were very confident in using hardware such as a computer, printer or scanner but only three of them declared themselves confident in using a digital camera or video camera. All of them reported being confident in using Microsoft Word, the Internet and e-mail facilities.

Five of the teachers stated that they felt the use of computers in the classroom for teaching benefits pupils and that the standard of work is improved as a result. ICT skills and knowledge were rated as being important by most teachers and the monitoring of pupils' activities and progress in an on-line context was rated as highly important by all but one teacher.

Generally the teachers had a positive attitude to the use of ICT in teaching and felt that it benefited them in their role as teachers. Half of them expressed the view that it broadened the

knowledge and the experience of pupils but one teacher had no desire to use ICT more in their teaching. In relation specifically to using a VLE in teaching, all of the teachers expressed concerns, though their explanations of these concerns related mainly to the reliability of the school computer system and access to the computer suites. Those with an IT technician to support classroom work had significantly fewer concerns about this issue.

Teacher Attitudes to Innovation

At the beginning of the project there were mixed feelings of apprehension and keenness among the group. Anxiety arose in relation to the many unknowns and particularly the prospect of additional burdens on already tight workloads. There was anxiety too over the unknown level of ICT competence that might be required. The project timetable was tight and added its own insidious stresses as the time drew near to begin the teaching, for example. But there was also a sense of eagerness, which for the majority of the group lasted all the way through, fuelled in part by the reaction and work output of the pupils. All of the teachers were firm and vocal in relation to the burdens of the research work and on the project eating into their own and school time. The project team had taken account of the likelihood of such pressures and the principals facilitated the training days and additional meeting times as best they could. The teacher researcher spent time each week with all of the teachers during the development phase and also before, during and after each VLE lesson in the teaching and learning phase.

The majority of the group maintained a high degree of commitment to the work throughout despite many competing pressures and the intensity of the project activities. Two of the group, however, settled into a pattern of what might be termed 'making do', fulfilling their commitments **without fully embracing or exploiting the features of the technology provided**. In these cases, it became clear that the problem was not the VLE context but an antipathy to the **concept of online learning**. Both teachers voiced concerns that they were being overburdened, that the work was of little value to themselves and that the project support was insufficient. The disengagement was by no means complete, however, and a significant degree of success in all aspects of the project was achieved. But it was characterized by such things as unanswered telephone calls and e-mails, and questionnaires not returned. That said, the project team accepts without reservation that the project did burden all of the group considerably, in ways that were predictable but largely unavoidable, and must also accept responsibility for not resolving the perceptions or perhaps stresses that underlay this partial disengagement by these teachers.

Teachers' Final Perspectives on ICT and VLE Issues

Towards the end of the project, the views of the teachers were sought on aspects of VLE and general ICT usage. Perusal of the summarized statements set out in tables 4-9 below for each teacher paints a positive picture of the likelihood of VLEs featuring in these teachers' future work.

Table 4: Responses of Teacher 1 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	Provides a valuable learning tool in the delivery of GNVQ/AVCE
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	No	In the context of my main subject area primary sources are the most effective resources available
• Do you feel that using ICT for teaching enhances your subject area?	Yes	Quality of presentation
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	No	Access to PC facilities within school timetable time is limited – cannot “depend” on ICT as main delivery tool
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes	Presentation
• Do you think that using computers for teaching purposes will improve the pupils’ standard of work?	Yes	Project is a “short-term” activity
• Do you have concerns about using a VLE environment for the purpose of teaching?	Yes	-
• Do you feel you need training in the various functions of the VLE environment?	No	-
• Do you feel you need training on applications, such as PowerPoint?	No	-
• Would you like additional ICT training above that being offered on the VLE course?	No	-
• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	No	-
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	No	-

Table 5: Responses of Teacher 2 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	Brings more options into the classroom
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	Yes	More resources, better presentation of work
• Do you feel that using ICT for teaching enhances your subject area?	Yes	More visual (especially good for lower ability)
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	Yes/No	Depends on the lesson
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes/No	Sometimes
• Do you think that using computers for teaching purposes will improve the pupils’ standard of work?	Yes/No	Depends on the lesson
• Do you have concerns about using a VLE environment for the purpose of teaching?	Yes	Extent of equipment available
• Do you feel you need training in the various functions of the VLE environment?	Yes	Needs full understanding prior to involving pupils
• Do you feel you need training on applications, such as PowerPoint?	No	-
• Would you like additional ICT training above that being offered on the VLE course?	No	-
• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	Yes	Now worried about the actual support from DENI <i>(for training and VLE development etc)</i>
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	No	-

Table 6: Responses of Teacher 3 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	Efficient
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	Yes	Global links via the Internet
• Do you feel that using ICT for teaching enhances your subject area?	Yes	Colourful images and images from abroad
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	Yes/No	It has the potential to engage pupils more
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes	Individual engagement
• Do you think that using computers for teaching purposes will improve the pupils' standard of work?	Yes/No	Depends on the quality of the learning environment
• Do you have concerns about using a VLE environment for the purpose of teaching?	-	Low ability class – how will they adapt to using Blackboard
• Do you feel you need training in the various functions of the VLE environment?	Yes	Little more on Blackboard
• Do you feel you need training on applications, such as PowerPoint?	No	Not really
• Would you like additional ICT training above that being offered on the VLE course?	Yes	Very interested in VLE
• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	Yes	Can see more applications
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	Yes	My subject can be made very interactive on VLE and net

Table 7: Responses of Teacher 4 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	Broadens the pupils' knowledge and experiences
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	Yes	-
• Do you feel that using ICT for teaching enhances your subject area?	Yes	Digital images – manipulation of images with otherwise wouldn't be possible
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	No	It's just another tool
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes	Allows wider access the information
• Do you think that using computers for teaching purposes will improve the pupils' standard of work?	Yes	Better research, sometimes more user friendly for various abilities
• Do you have concerns about using a VLE environment for the purpose of teaching?	Yes	Lacking experience and confidence – but this will come with use and homework
• Do you feel you need training in the various functions of the VLE environment?	Yes	I would rather "play" than read a manual but guidance during "play" would be helpful and useful
• Do you feel you need training on applications, such as PowerPoint?	No	I learn by default
• Would you like additional ICT training above that being offered on the VLE course?	Yes	Yes to iron out any queries and to add to knowledge that already exists

• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	No	Not relevant to my subject area (<i>Although accepting ICT as being very useful for creating stimulus and other teaching resources, this teacher did not consider ICT to have a role in the delivery of teaching in their <u>own</u> subject as opposed to citizenship</i>)
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	No	-

Table 8: Responses of Teacher 5 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	We need to be as computer literate as the children
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	-	Not necessarily
• Do you feel that using ICT for teaching enhances your subject area?	-	Sometimes – depends on content
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	-	You must teach traditionally first and then move on
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes	-
• Do you think that using computers for teaching purposes will improve the pupils' standard of work?	Yes	-
• Do you have concerns about using a VLE environment for the purpose of teaching?	Yes	Not trained enough to be confident – but I'll pick it up quickly
• Do you feel you need training in the various functions of the VLE environment?	Yes	Just what we haven't covered so far
• Do you feel you need training on applications, such as PowerPoint?	Yes	A refresher course
• Would you like additional ICT training above that being offered on the VLE course?	No	-
• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	No	-
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	No	-

Table 9: Responses of Teacher 6 to end of project questionnaire

Statement	Yes/No	Additional comment
• Do you think being able to use a computer benefits you in your role as a teacher?	Yes	-
• Do you think that using ICT in teaching will allow you to do things that are otherwise not possible?	Yes	-
• Do you feel that using ICT for teaching enhances your subject area?	Yes	-
• Do you feel that a lesson using ICT is more effective than a traditionally taught lesson?	Yes	On occasion
• Do you think that using computers in the classroom for teaching purposes benefits the pupils?	Yes	-
• Do you think that using computers for teaching purposes will improve the pupils' standard of work?	Yes	Possibly

• Do you have concerns about using a VLE environment for the purpose of teaching?	Yes	-
• Do you feel you need training in the various functions of the VLE environment?	Yes	-
• Do you feel you need training on applications, such as PowerPoint?	Yes	-
• Would you like additional ICT training above that being offered on the VLE course?	Yes	-
• Do you feel your attitude towards ICT has changed in any way as a result of being part of the VLE Project?	No	-
• Do you feel your attitude towards your subject changed in any way as a result of becoming part of the VLE Project?	No	-

IMPLICATIONS FOR POLICY AND PRACTICE

“It is probably fair to say that ICT has yet to become “mission critical” for the vast majority of schools or school systems. We will know that this has been achieved if and when the place and role of ICT is both self-evident and acknowledged to be crucial to the functioning of the system in the following areas:

- the curriculum
- pedagogical practices
- the leadership, management and development of schools
- constructing the relations between school, home and community
- integrating learning in and out of school
- processes of (formative and summative) assessment, examination and accreditation
- policy formulation, implementation and evaluation. “

David Wood, in his report: “Think Again” (2003)
European Schoolnet - www.eun.org

In examining the implications of this project for policy and practice, David Wood’s framework of impact areas above suits our purpose well. The areas most relevant to this report are considered briefly below:

Curriculum

This project had as its focus a curriculum area, citizenship education, new to key stage 3 in Northern Ireland; not new in its core citizenship issues but new in terms of its impending formal integration into the curriculum. That citizenship was a focus of the project was no accident of course. The citizenship curriculum itself is outward looking and is designed to engage pupils in an awareness of global issues and developments that will often resonate at some level with their own experiences. The work of the project has shown that a VLE can considerably enhance this curricular area, making it amenable to key stage 3 pupils and opening for them a window onto a global view of its complex and often contentious breadth of social and political issues. The project shows that a VLE approach is possible and desirable for delivering the citizenship curriculum.

Pedagogic practice

The momentum of the developing managed learning environment in Northern Ireland is gathering pace and before 2004 is out the infrastructure for educational computing in Northern Ireland is set to be radically changed. The modest level of potential for using virtual learning environments in some schools will quickly become a widespread and powerful prospect for all schools. This project demonstrates that there are considerable hurdles to be overcome in ensuring that the community of teachers in Northern Ireland is competent, confident and willing to grasp the new orthodoxies that teaching and learning with VLEs imply. The ‘buy-in’ of teachers has been demonstrated to be of paramount importance and introductions to VLE technology must be high quality, relevant and designed to demonstrate the potential of blending ‘traditional’ teaching and learning with virtual learning.

Planning must be therefore be given over to ensuring there is:

Appropriate engagement of teachers - in the pedagogic design of any VLE to support any area of the curriculum

Time for teachers - to

- develop the knowledge, skills and understanding necessary to underpin their involvement in new teaching contexts;
- to identify, select and marshal the vast resources available on-line to support their pupils’ learning and their own teaching;
- to monitor their pupils’ work and progress on-line

Training for teachers - that covers the technical aspects of VLE usage and:

- the skills and judgements needed to blend good traditional pedagogic practice with the integration of innovative learning contexts, in which the pupils assume much more control over how they seek and use the information that underpins their learning
- the skills of assessing and recognizing pupils' progress and performance in increasingly complex learning contexts ranging from wholly individualized to wholly collaborative
- the skills needed in engaging with pupils in on-line feedback and support and learning outside the classroom (in existing or developed collaborative communities).

Leadership, management and development of schools

The project has demonstrated clearly that school managers may be very aware of the potential of VLE-type technology and their responsibilities in providing the leadership that facilitates its integration in their schools. However, it has also clearly demonstrated that even with the best will in the world there is unlikely to be sufficient flexibility in the current staffing and resourcing levels of schools for school managers to realize their aspirations. Estimates of resource needs are very difficult to make with any quantitative certainty but the extent of VLE training, course development and practice time needed in the first few years of the roll-out of the next phase in the education technology strategy will be considerable.

The possibilities of marrying training programmes for VLE-type development and for the new curriculum, both of which espouse many of the same essential aspirations e.g. independent learners, thematic learning etc., must be examined to ensure a cohesive and efficient use of teachers' training time, whatever level of provision that turns out to be. The recent CCEA-sponsored programme of two-day residential training courses for citizenship teachers indicates the intensity of training for a new curriculum area. The integration of VLE-type technology into schools will represent a considerably greater challenge than this and will draw on considerably more staffing and physical resources.

Constructing the relationships between school, home and community and integrating learning in and out of school

There was little evidence in this project that the construction of learning communities around classes, teachers and pupils will be easy. The project has shown that the understandable reluctance of teachers to engage in after-hours work to support such developments will be one major factor. However the prime obstacle now and for some time to come may well be the wider community's (parents, employers, voluntary and community groups) lack of awareness of the potential for VLE-based communities of learners. Considerable progress will likely need to be made in schools before the 'leeching' effect begins to draw in the wider community.

Processes of (formative and summative) assessment, examination and accreditation

This project did not address these issues but they remain major concerns for training and development, particularly in developing teachers' skills in assessing in the new medium and in recognizing learning as they monitor the new modes of pupil learning that VLEs will promote.

Policy formulation, implementation and evaluation.

This heading allows us to reach our conclusion. The project leaves little doubt that VLEs are viable and powerful learning environments for all types of pupil in key stage 3 (and by extrapolation from it, in combination with the findings of other VLE projects, to advanced level and key stage 4). It also leaves little doubt that there are considerable challenges ahead for policy makers and implementers in securing the necessary willingness and enthusiasm of teachers, affording them the time and training to reach the levels of competence and confidence needed and supporting school managers in well planned integration of VLE-type technology into their schools.

APPENDIX 1

Context of Education Technology Development in Northern Ireland

An Overview of the Issues by Mary Mallon, C2k

Since 1996 when work began on the Education Technology Strategy (ET Strategy) in Northern Ireland, there have been concerted efforts on many fronts to embed ICT in learning and teaching in our schools. These activities reflect similar work being done nationally and internationally as education systems around the world grapple with the complexities of ICT integration.

Embedding ICT in learning and teaching impacts internally on all aspects of our school systems, and is, in turn, impacted upon by many external factors including the effects of globalisation, financial constraints, ever-changing technologies, research in cognitive sciences, the increasingly digital environment in which young people are growing up and the increasing ubiquity of distributed networking and the internet.

Internally, ICT raises issues of access, training, and support within schools. Models of access, that is, the ratio of pupil to machine and the models of distribution of machines within a school, raise questions about the current architecture of school buildings and classrooms, the role of ICT in the learning process and the nature of the relationship between face-to-face and virtual learning. Initial and continuing professional development of teachers needs to take account of the new skills teachers will require and ongoing support for teachers will need to reflect an understanding of the time and space needed if ICT is to be truly integrated.

In Northern Ireland in 1997, the Education Technology Strategy identified provision of access and connectivity for teachers as a key determinant of successful ICT uptake and integration:

'Teachers'...ICT skills will quickly become rusty, and enthusiasm will rapidly become frustration, if lack of suitable facilities prevent their practical application in the classroom.'(ET Strategy document, chapter 4, par., 4.3)

Information from the Education and Training Inspectorate at this time, revealed a very uneven uptake of ICT in schools with examples of significant use being the exception rather than the rule. (ET Strategy document, chapter 2., par, 2.4). These findings coupled with the KPMG report on hardware, software and connectivity provision in schools, suggested that there was a critical need to improve access and connectivity. On the other hand, the Strategy also noted that usage of the Schools' Administration system (CLASS) was significant across all schools and this they attributed to its common platform and software as well as its central and co-ordinated arrangements for training and support. (ET Strategy document, chapter 2, par 2.7).

Since 1991, CLASS had implemented and was supporting a province-wide intranet for schools and thus it was the logical starting point for ensuring the type of connectivity and access required for the uptake and integration of ICT within the curriculum. Therefore, in the remit for curricular as well as administration provision, C2k was born and tasked with the procurement of a managed service which would address, on a regional basis, the ICT requirements of all schools. As stated in the ET Strategy document:

'The aim would be to achieve an integrated 'package' of ICT provision on a cost-effective basis, in the process removing the increasingly unhelpful and spurious demarcation between 'administrative' and 'educational' ICT provision.' (ET Strategy document, chapter, 6, par., 6.3)

C2k provision includes hardware, infrastructure, connectivity, internet access and access to an online or virtual learning environment entitled LearningNI (LNI). Provision of access and connectivity via school LAN infrastructure is well under way for all schools and a major focus of the project is now the Wide Area Services which comprise a broadband network, data centre, LNI and internet access. The user base for LNI will be, approximately, 350,000 users, including pupils, teachers and members of the educational support services. Since December

2002 intense work has gone on across a number of fronts around the design and build of the network, creating an Active Directory enabled solution and consulting, configuring and designing the build of the online learning environment.

The ET strategy set in motion a series of activities which have resulted in a substantial amount of change over the last 5 years, with respect to ICT in schools. Below is a list of the key developments that have taken place since 1997:

- **CLASS:** provision of electronic admin service for all but very small schools -1991. That is provision for approximately 1,200 schools.
- **The KPMG report:** this report looked at ICT provisioning in the schools and informed the ET Strategy with respect to the need for a centralised approach -1996
- **ET Strategy⁴:** its focus was on developing a strategy for provisioning, training and classroom integration of ICT - 1997
- **NINEConnect:** NINEConnect was the totality of services first offered to teachers in line with Strategy and included ISP services, Virtual Teachers Centre, Email and online conferencing for teachers - 1997
- **Connecting Teachers initiative:** This was a cascade model of training led by the Curriculum Advisory and Support Services (CASS) in the Boards. It was aimed at developing ICT competencies of the teachers in all schools - 1998
- **Laptops for teachers:** To support this training, C2k funded the provision of laptops for teachers. There is now a total of approximately 14,000 laptops deployed and the current ratio is 1:2 teachers - 1998
- **NOF training:** The New Opportunities Funding (NOF) was a government initiated national, in-service training programme that used funding from the National Lottery. In Northern Ireland it built on the Connecting teachers initiative and ran from - 1999-02
- **CLASSROOM 2000/C2k:** This is the project, set up under the Strategy and on behalf of all the Boards, tasked with providing the learning technology – 1997 – to present
- **Broadband connectivity provided for all post-primary schools:** As an interim measure before the full C2k entitlement was rolled out to post-primary schools, C2k funded the provision of Broadband to all 200+ of these schools - 2001
- **Creation of pool of expertise in e-learning:** The Department of Education provided funding for cohort of 17 professionals from across the education service to undertake an International Masters degree in e-learning= 2000 - 2002.
- **Blackboard VLE Pilots:** This project was set up and funded by C2k to provide a pilot environment to support curriculum and professional development initiatives that wanted to pilot a virtual dimension. - 2001 – present
- **NIEL partnership:** This partnership was set up to develop guidelines/set standards for e-learning for the region – 2002
- **Revised ET Strategy:** After 5 years the ET strategy document has been reviewed. It is recognised that targets for provision and training continue to be achieved and the focus of the strategy has now shifted unto e-learning and the activities and processes that are necessary to embed this in learning and teaching in our schools – 2003

In 2004 all schools in Northern Ireland will have access to an online or virtual learning environment with a variety of rich functionality for online collaboration and communication. Pragmatism and an understanding of the current culture are needed if it is to be successfully integrated into our schools. But, despite significant changes over the last 5 years, there is still a gap between aspiration and reality with regard to the use of this type of technology in schools. But both the reality and aspiration are valid education positions and the challenge facing us is to enable current practices to be enhanced now, while having a developmental strategy which will allow us to enable paradigm shift in that practice in the future. In effect a strategy which will allow us to move from current reality to future aspiration in a way that will bring the education community along with us. This is by no means an easy challenge and by

⁴ This strategy is now being reviewed and a copy of the original document can be accessed at:

http://www.deni.gov.uk/about/strategies/d_ets.htm

looking briefly at some current studies on Virtual Learning environments with particular reference to the schools' sector, the complexity of the undertaking will become clear.

Online Learning Environments

Pragmatism and an understanding of the current culture are needed if it is to be successfully integrated into our schools. Yet, despite significant changes over the last 5 years, there is still a gap between aspiration and reality with regard to the use of this type of technology in schools. But both the reality and aspiration are valid education positions and the challenge facing us is to enable current practices to be enhanced now, while having a developmental strategy which will allow us to enable paradigm shift in that practice in the future. In effect a strategy which will allow us to move from current reality to future aspiration in a way that will bring the education community along with us. This is by no means an easy challenge and by looking briefly at some current studies on virtual learning environments with particular reference to the schools' sector, the complexity of the undertaking will become clear.

Much is currently being written about VLEs and MLEs in the context of education and there are now many definitions of what constitutes a virtual environment and what is meant when that environment is also 'managed'. A variety of functionality has been defined and though there appears to some consensus on a set of generic functions that a VLE should have, the term is often used to mean some subset of this such as a communications system, for example. This begs the question of what constitutes a learning environment, virtual or otherwise and is something I will return to later on.

Recently 2 reports on VLEs have been issued; one by Becta and the other by the European SchoolNet.⁵ The Becta report has a wide focus and seeks to give an overview on the current state-of-play with regard to virtual environments as they are being used in the education sector as a whole. This analysis is then used to look at use in UK schools and suggest future directions. The European report by comparison, is based on a survey of schools' use of VLEs and while it makes some reference to the origins of this technology, it is mainly focussed on analysing current trends and offering suggestions for future directions in their application in the schools' sector.

The European Schools Report

The findings of the European report are based on a survey of 502 respondents from 27 countries. Therefore the breakdown by country means that the sample is small and this is a limitation of the report. Nevertheless, the overall picture is similar in many ways to the Becta report and can be summed up as follows:

VLEs in the school sector are at an early stage and both the market and the product are immature and unstable. However within the EU many governments are placing a high priority on this technology as a means of enabling change in the teaching paradigm to one that is a more teacher-facilitated, learner-centred model. The report notes, however, that so far this type of change has not been enabled by this technology. The predominant use of VLEs is by early adopters and enthusiasts, more teachers than pupils use them, and communications tools, setting assignments and using the system generally as a 'digital distribution' medium seems to be the most common practice. (VLEs for European Schools, January 2003)

⁵ A Review of the Research Literature on the use of Managed Learning Environments and Virtual Learning Environments in Education, and a consideration of the implications for schools in the United Kingdom. Becta ICT Research Network, available at: <http://www.becta.org.uk/research/reports/vle.cfm>

Virtual Learning Environments for European Schools: A Survey and Commentary, January 2003, available at: <http://insight.eun.org>

Computer-based Training or Computer Supported Collaborative Learning?

Perhaps the most interesting element in this report is reference to the work of the Centre for Research on Networked Learning and Knowledge Building in the University of Helsinki.⁶ This group is developing an on-line learning environment, Future Learning Environment 3 (FLE3), based on a 'progressive inquiry learning' approach which promotes inquiry, research, and peer collaboration leading to the construction of meaning and understanding. The approach is captured in the illustration below:



(Reproduced from Kligyte, November 2001)

According to Kligyte this approach is based on the belief that:

'school education should help the students to engage in active construction of knowledge similar to expert inquiry instead of passive consumption of ready-made study materials.' (Kligyte, 2001, p.16)

The contention in the report, however, is that VLEs are currently being used largely to put 'old wine in new bottles.' The reason suggested for this lies in the origins of the technology. This medium was developed for tertiary education and business to support distance learning and training. Current VLE designs are suited to course delivery based on a teaching paradigm that focuses on information distribution, assignment setting and assessment. It is largely directed by the tutor/lecturer and is very much a computer-based training (CBT) approach.

By comparison, a Computer Supported Collaborative Learning (CSCL) approach compliments progressive inquiry learning and is reflected in an on-line environment which has:

'...tools for knowledge building and collective management of knowledge, accumulation of notes, visual representations of database tools to support knowledge building and production between users.' (VLEs for European School, January, 2003, p.27)

⁶ Their website is available at: (www.helsinki.fi/science/networkedlearning/eng/tausta.html).

Currently, however, learning and teaching in schools is still predominantly teacher-led and based on information transmission. The EU report notes that VLEs are a 'precondition for improvement, but not a cause', and this would suggest that other factors to do with curriculum, teacher training, and school structures will also have to change. This is summed up in the report as follows:

'VLEs...can surely act as facilitator of the change and shift towards a new pedagogical paradigm that re-engineers the whole learning environment and takes into account a holistic approach including cultural and organizational changes in schools.' (Page 27).

So, not only do we need to re-visit the design of VLEs but also the structures and processes by which we organize and implement education in the schools' sector.

The Becta Report

The Becta report, though essentially a review of the literature on VLEs/MLEs and the implications of the findings of this review for the schools' sector, describes a similar situation. The same picture of scattered, uneven use, predominance in the tertiary sector and little evidence of any major impact on approaches to learning and teaching in schools is reported. Both reports also note that VLE use in the schools sector is mostly in post-primary and both pose questions as to its application in primary. Finally, both reports discuss the issue of interoperability. A VLE becomes an MLE when there is seamless exchange of data between different systems – curriculum and administration – which is accessible by the user from a common interface. Standards are very much in their infancy and it is interesting to note, that the European study revealed that the majority of schools have developed bespoke VLEs.

Both reports offer a definition of what is meant by a VLE by detailing its component parts. (See table below)

Table 1 A comparison of the component definition of a VLE in both reports.

Components of a VLE	
<ul style="list-style-type: none"> • Becta Report • Notice-board/bulletin Board • Course outline (course structure, assignments, assessment dates) • Email facility • Conferencing tools (asynchronous conferencing or discussion groups) • Student home pages • Metadata (ability to add metadata to resources) • Assignments (ability for tutor to create assignments) • Assessments • Synchronous collaboration tools (such as whiteboards, chat and video conferencing) • Multimedia resources (accessing, storing and creation) • File upload area (ability for students to upload their resources to a shared area) • Calendar 	<ul style="list-style-type: none"> • European Schoolnet Report • Notice-board • Email • Forum, Mailing lists, community mail • Class list and students home pages • Automatic generation of metadata of the learning resources • Possibility to assign tasks to students • Assessment tools for learning progress • Shared whiteboard, chat, Instant messaging, Voice over Internet Protocol, Peer to peer • Tools to create on-line material and courses • File share, file upload area • Calendar • Link lists, Group browsing

The two lists are almost identical. However, the question such lists beg is why this particular set of functionality has been defined as constituting a VLE and what have been the guiding principles behind the way they have configured. It is a question worth exploring because it reflects origins of the concept in systems which are fundamentally different from the schools'

sector. Also, the pedagogic approach that most current VLEs support is a traditional, teacher-centred one and this would suggest that in this form, VLEs will not enable the kind of paradigm shift that is being sought. Rather, as the European Schools report noted: 'it is easier for a teacher to practice 'traditional' teaching with VLEs than try new ways for collaborative exercises that support learner-centred pedagogy....' (Page 27)

What is a Learning Environment?

A crucial element here, and something which is not explored in any detail in either report, is the definition of a learning environment. Wilson defines it as: 'a place where learners may work together and support each other as they use a variety of tools and information resources in their pursuit of learning goals and problem-solving activities (Wilson, 1995). Thus a learning environment has 3 elements: learners, activities and artefacts and it is the interaction between these that results in learning. Applying this notion of interaction between the learner and the environment to VLEs, it can be argued that a learner using e-mail to help in the construction of meaning and the development of understanding is using a VLE. However, the current literature suggests that VLEs are defined holistically as environments which contain a list of functionality configured and presented to the learner in a way that reflects our understanding of the formal learning environment of the classroom. Interactions between the learner and this environment are thus in danger of reflecting face-to-face classroom activity and as the European report points out, is very easy for teachers to continue to do what they always did even though they now have access to new tools. It is not so much a case of 'old wine in new bottles' as 'new bottles being redesigned as old ones!'

But if we want to use this technology to enable paradigm shift, then we need to look at our approaches to learning and the technologies that can support these, rather than recreating the classroom environment virtually and thus recreating the current paradigm on-line. Thus it may be that we need to consider VLEs as a sum of their parts rather than holistically as an 'on-line environment' and concentrate on identifying and developing those aspects of functionality that will support constructivist learning and thus help enable a paradigm shift to more learner-centred learning.

Summary

Currently there is a degree of deployment of VLEs in the schools' sector. However, so far they have not lived up to the expectation that they would be a significant enabler of a paradigm shift in teaching and learning. A suggested reason for this is because they have been developed to simulate the face-to-face classroom and its learning interaction, on-line. Thus current usage tends to be quite traditional. Fundamental changes in schools will not happen by the introduction of VLEs alone and so there are other areas of teacher training, curriculum etc that also needed to be looked at. However, VLE technology may also need to change and its different functionality examined to see how it can be developed to suit a more teacher-facilitated, learner-centred approach to learning.

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APPENDIX 2

Promoting the Integration of ICT in Classroom Practice

An Overview by Dr Pamela Cowan, Queen's

The Education Technology Strategy

As mentioned above the Education Technology Strategy was introduced in 1997 and its broad aims were to:

- equip all schools with a common infrastructure of hardware and peripherals and to connect them to an on-line educational support network through a system-wide managed service;
- provide training for teachers to enable them to be personally competent in the use of the ICT equipment and materials;
- encourage teachers to integrate ICT in the teaching and learning processes of their pupils;
- offer guidance to schools in terms of curriculum content, professional support and 'best practice' when using ICT in teaching and learning and for school administration and management;
- enable pupils to live, learn and work in the information society.

The key elements of the Education Technology Strategy were: NINE Connect, Connecting Teachers, New Opportunities Fund training and Classroom 2000. Each of these aspects is outlined briefly below.

NINE Connect

NINEConnect was developed and implemented by the CLASS project team, which had provided schools with the CLASS administration system. This system offered schools integrated information management facilities for supporting timetabling and teacher cover, attendance, assessment results and analysis, and financial systems for managing school budgets and spending. Since all the schools were already connected via this system, the aim of NINEConnect was to connect the classroom teachers into a network similar to that provided for senior management staff. NINEConnect provided schools with a common, filtered, multimedia-based connectivity platform offering free connections to the Internet, e-mail facilities and Web conferencing. It was also a means of ensuring secure file exchange for examination-related and financial data. The main difference between the previous CLASS provision and that of NINEConnect was the presence of on-line resources for direct use in the classroom, introduction of both open and closed Web conferencing areas for professional discourse and debate, and the development of an on-line area to support beginning teachers and those completing their early professional development programme.

Connecting Teachers

The Connecting Teachers scheme was implemented by the IT Advisory services within each of the ELBs. ICT training was provided for one or more 'teacher leaders' from each school. Based on the 'cascade' model of professional development, these teacher leaders were required to train smaller subgroups of subject specialists in their own schools in the use of ICT in teaching and learning. These subject specialists were in turn required to train their colleagues, often in the same department, to use ICT effectively in teaching. The cascade model was deemed the most effective and cost efficient method of ensuring all teachers received sufficient levels of training in ICT as quickly as possible. For teachers in small or rural schools, the Connecting Teachers approach provided a context for the development of a professional dialogue and the sharing new ideas for engaging pupils in the learning process, between neighbouring schools.

The initiative was also designed to benefit a second category of target staff, school senior management teams. The objective was to alert them to the potential issues and implications of encouraging teachers to use ICT regularly in their teaching. These included its impact on the short and long-term strategic planning of the school in relation to ICT resources, technical and pedagogic support and the maintenance and upgrading of hardware, software and peripherals.

NOF Training

The New Opportunities Fund (NOF) offered training for all teachers and school librarians in the use of ICT to enhance teaching and learning. The two main training providers: the Learning Schools Programme (LSP) and Belle Associates (The Learning Line), devised a scheme of work that fitted the needs and requirements of the group of teachers with whom they were working. Training was only available to a school if the teachers were already ICT proficient at a basic level and the necessary hardware and support provision was in place.

The aim of the NOF training was defined by the Teacher Training Agency (TTA) as being to “equip teachers with the necessary knowledge, skills and understanding to make sound decisions about when, when not, and how to use ICT effectively in teaching particular subjects” (TTA, 1998). The ‘expected outcomes’ from the training were in turn categorized for England and Wales under two headings: *effective teaching and assessment methods* and *teachers’ knowledge and understanding of, and competence with, information and communications technology*. In terms of the Education Technology Strategy for Northern Ireland, these sections mapped onto the three areas of ICT competence detailed in Annex 5, namely: Personal Competence, Subject Competence and Teaching Competence. The training programmes required teachers to produce a portfolio of evidence demonstrating their competence in using ICT for administration purposes, locating resources on-line or sharing ideas with colleagues via e-mail for creating worksheets in which the pupils had to garner information from a recommended list of websites chosen by the teacher. On completion of their portfolio, the school principal or a designated member of the senior management team within the school, was required to sign off each teacher as having been successfully NOF-trained. Certificates of competence were then awarded.

Classroom 2000

The Classroom 2000 team had responsibility for ensuring schools had sufficient hardware and software prior to the NOF training. In parallel to this, the Classroom 2000 staff worked alongside teachers, ELB staff and the ETSMG to identify a suite of software suitable for the primary, post-primary and special schools involved. Licensing arrangements were negotiated so that all schools, libraries and educational establishments such as teacher training institutions would have unlimited, free access to the software both at school and at home with regular upgrades and support. The primary and post-primary ‘Schoolboxes’ comprised 80 and 120 software titles some of which were located on the central server and accessed through the managed service.

APPENDIX 3

Scheme of Work

Week Beginning	Task to be Completed	Due
24/02/03	<p>1a Explain the project purpose and outline the tasks for students. Identify the smaller tasks that must be completed (to gain points to achieve a better score in the larger task). Discuss with pupils the collaboration between the 3 schools, the opportunity to meet, e-mail and chat with other pupils using the VLE. Students may complete an ICT survey. Introduce the idea of an Electronic Logbook that students must fill in at the end of each lesson.</p> <p>1b Introduce students to the idea of rights. Brainstorm the rights students feel they have? Why do students feel they have these rights? During this brainstorm identify the relationship between Wants and Needs. This work can be completed individually or in groups. Students must identify what they feel are the 5 most important rights, by filling in a work sheet. Worksheet task is individual. Students must update their logbook.</p>	<p>Mini Task 1</p> <p>Mini Task 2 5 Rights</p>
03/03/03	<p>2a Students will complete an attitude questionnaire. What are the UN Human Rights? Use a card game to introduce the Articles and categorize Articles into 5 themes. Discuss/explain these rights with your class. Group activity – students use a set of cards to prioritize Rights. The class will discuss and identify a top 5. Students can glue the chosen Rights Cards onto a record card or create poster. List personal top 5 on a handout. Students must update their logbook.</p> <p>2b Examine the relationship between Rights and Responsibilities. Use story examples to explain the concept. Get students to vote using a secret ballot as to their feelings about responsibility to others. Identify the link between each story and the related theme, suggested game using cards. Students must update their logbook.</p>	<p>Mini Task 3 UN Top 5</p>
10/03/03	<p>3a Complete an introduction to Blackboard. C2k consultants will be in class to support/teach blackboard. Students will chat with their classmates, using both the Discussion Board and the Coffee Bar. Students must update their logbook.</p> <p>3b Flexible lesson. Students will complete worksheets to consolidate the information that has been identified. Students may also view resources, use the Discussion Board or Coffee Bar in Blackboard during this lesson. Students must update their logbook.</p>	<p>Mini Task 4</p>

Week Beginning	Task to be Completed	Due
17/03/03	<p>4a Divide the class into small groups and examine the external links within Blackboard. Later in the lesson students will report (verbally) on what they have discovered about Human Rights around the world. Students will brainstorm their findings with the teacher who will assist them in identifying which Rights their findings are related to. Students must record this in their logbook.</p> <p>4b Teachers will recap on previous lesson. Teachers will assist students in identifying 5 main themes within the UN Convention of Human Rights. Each student group will then be given a theme to concentrate on. Students continue with their research. Students must identify locations that have been mentioned in the stories or websites that they have examined. This may be by colouring-in a map. Again students must begin to prepare a report on their findings. Students must update their logbook.</p>	Mini Task 5
24/03/03	<p>5a Student groups prepare a short report (written, verbally or video taped) that outlines facts they have discovered about this location. The report may include images.</p> <p>5b Student groups will work to complete the report using what they have discovered about the particular theme they have investigated. Those students who have completed this task may update their logbook and then use the discussion board.</p>	Mini Task 6
07/04/03	<p>6a Students will be out of school on this day to meet the other students working on the project. Morning activities will include icebreaker and team building activities. Afternoon activities will include study groups to cover file exchange explanations in C2k's offices.</p> <p>6b During this lesson, students will work in the Discussion Board and Coffee bar to communicate with group members from other schools. Students will update their logbooks.</p>	Mini Task 7
14/04/03	<p>7a During this lesson the final task will be distributed to students. The task will be explained and students will brainstorm the development of their ideas. The process to be used will be explained to students. Coffee bar and Discussion Room time.</p> <p>7b During this lesson, students will put some information on a PowerPoint slide and use file exchange to send this to group members in other schools. This might include an image of the student and their name.</p>	Mini Task 8

Week Beginning	Task to be Completed	Due
21/04/03	<p>8a Student groups will decide via discussion how they will prepare the information for PowerPoint. Teachers will suggest that group members examine a country to illustrate how this Right is being abused and upheld in countries around the world. Students might be able to transfer the information from a word document into a PowerPoint presentation.</p> <p>8b Students will work in pairs in the classroom to gather the information necessary for them to complete the final task.</p>	
28/04/03	<p>9a/b Students will work in pairs in the classroom to gather the information necessary for them to complete the final task.</p>	
05/05/03	<p>10a/b Students will work in pairs in the classroom to gather the information necessary for them to complete the final task.</p>	
12/05/03	<p>11a/b Students will work in pairs in the classroom to gather the information necessary for them to complete the final task.</p>	
19/05/03	<p>12a Evaluation of the completed PowerPoint packages by the group members within each class.</p> <p>12b Suggestions will be made to their counterparts in other schools. Groups add the finishing touches to the final PowerPoint.</p>	Mini Task 9
26/05/03	<p>13a Flexible week to allow students to complete the PowerPoint presentation.</p> <p>13b Flexible week to allow students to complete their electronic logbook.</p>	Final Task Mini Task 10
02/06/03	<p>14a Testing by project organizers to ensure projects are completed and running properly in Blackboard.</p> <p>14b It is hoped that during this lesson that students will come together and celebrate the completion of the project. Students will complete the second administration of the attitude questionnaire.</p>	

APPENDIX 4

Mini and Final Tasks

Task 1

You should create a Logbook to record the progress you make and the activities you complete related to the project. Ask your teacher to show you the example.

Task 2

You must list the five most important rights that you feel you have. This handout must be handed to your teacher before the end of the lesson.

Task 3

From your knowledge of the United Nations Convention on the Human Rights of the Child, identify what you feel are the five most important rights for children and adolescents all over the world?

Task 4

You must have communicated with another student in your own class or in another class.

Task 5

You must locate on a map a country that has been identified in the stories or websites you have looked researched.

You can do this on paper or using the map websites.

Task 6

You must complete a short report outlining the information they have discovered on a particular Right. This may be recorded or written, but should be no longer than one A4 page and should include an image.

Task 7

Part 1 - You must communicate with others to help develop a better understanding of the area you are researching.

Part 2 - You must communicate with the students in your group to discuss the development of the final task.

Task 8

You must insert an image on to a PowerPoint slide. Remember you must explain the image in your own words.

Use the File Exchange in your Group Page to post this information for the other members in your group to read.

Task 9

You must communicate with your group members and discuss how you can as a group improve the project presentation.

Task 10

You must submit your logbook to your teachers.

Final Task

You are one of a group of reporters that have been asked to work on a program about the Human Rights of Children and Adolescents around the world. Your report will be submitted to the United Nations United Nations Youth Parliament.

You will also prepare a PowerPoint presentation that will inform your class members about the issue you have investigated.

You might include in your presentation:

- Provide an explanation of the theme or issue that you have researched. Identify which article from the UN Convention of Human Rights that this is related to.
- A map of the world that identifies the location of any country included in your research.
- Using examples of stories, case studies and images illustrate how and why the Human Rights of Children in this country are not protected or upheld.
- Examples where the Human Rights of Young Adults are protected. You might give examples of organizations that campaign for the Human Rights of individuals.
- How might 'you put this right'? What can you do as a Citizen to prevent this type of injustice? What have you discovered about your right as a citizen?

APPENDIX 5

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