

Executive summary

1. This interim report covers the first year of the SHELL project. Data for the report was collected by the external evaluator via interview – with all available project members – and analysis of project documents. The report identifies the key agendas for participation in the project; areas of potential tension and concern; early outcomes; issues impacting on the delivery of project outcomes; and effectiveness of project processes.

2. The study found a number of **agendas for participation** in the project among the five current partner institutions. These included:

- a) Strengthening relationships between the University of Plymouth and its partner colleges.
- b) Benefits to staff working with student records, especially (but not exclusively) at the University of Plymouth
- c) Benefits to learning and teaching staff via access to progression data – enabling more effective learning support
- d) Direct benefits to students, including:
 - access to University services and resources (for students studying HE courses at partner colleges)
 - more efficient transfer from FE to HE (for students transferring)
 - access to a lifelong learner profile (potentially applicable to a much wider range of FE students)
- e) Institutional data integration and interoperability – in which SHELL was a synergist with other drivers
- f) Involvement in a cutting edge national development project
- g) A range of personal interests and commitments

3. A number of **tensions and concerns** were identified:

- a) The diversity of students and study opportunities, requiring very flexible solutions to the need for interoperable systems
- b) Differences among the five sites in respect of perceived costs and benefits of data interoperability
- c) Lack of a technical team leader during a crucial period of the project, leading to delays in implementation (a concern that was seen as being addressed)
- d) Adoption of an alternative solution to technical development than that originally foreseen (i.e. Phosphorix - a particular concern at one site)
- e) Different cultures and therefore different perceptions of the project from staff working in different areas: learning and teaching, MIS, business processes, technical development
- f) Shortage of relevant technical expertise, both in recruiting for the project and in securing time from existing staff
- g) Implementation of an authenticated user-name and password system for access to learner profiles

The last of these (g) was seen as a potentially insurmountable problem at one site, and a concern at others. The shortage of relevant technical expertise (f) was an endemic problem, and the next phase will give a clearer indication of whether the use of an external software development company offers an appropriate resolution. Other concerns show every sign of being discussed and resolved collectively. The diversity

of experience and perspective is recognised by most participants as a potential strength.

4. A number of **positive outcomes** had already emerged from the project:
- a) Successful collaborative events – including the initial meeting, roadshows and Northern Ireland visit – allowing project members to develop a shared understanding and ethos
 - b) Establishment of good working relations and practices within project working groups (with the exception of the technical team)
 - c) Delivery of a business process specification, based on flexibility of processes, commonality of outcomes, and sharing of good practice
 - d) Delivery of a learner profile specification, based on flexibility of learning and teaching practice and learner ownership
 - e) New opportunities for collaboration between sites, on issues including:
 - VLE implementation
 - Access to UoP resources and services
 - Enrolment processes
 - Recording learner attendance
 - Recording learner progress
 - Data security
 - f) New opportunities for dialogue within sites, especially between different areas of responsibility (technical/administrative/management/learning and teaching)
 - g) Senior management buy-in to the aims of the project
 - h) Perception that the SHELL project had helped to progress – and/or created synergy among – processes of systems integration (four sites out of five)
 - i) Perception that the SHELL project had helped to strengthen relationships between the UoP and partner colleges (four sites out of five)
5. There were a number of general and specific **issues impacting on project work**, many of which were already being addressed.

Issues impacting on all sites	<i>(Proposed) resolution</i>
a) Resignation of, and difficulty replacing, the technical team leader	<i>Phosphorix employed to lead up technical implementation (done)</i>
b) Problems in buying out mission-critical staff for project activities	<i>Ongoing issue</i>
c) High workloads of team members, especially team leaders	<i>Ongoing issue</i>
d) Delays in completing sign-off of deliverables (within and between sites)	<i>Identify responsibilities for sign-off (done)</i> <i>Identify clear criteria for sign-off (suggested)</i>
e) Diversity of existing systems: <ul style="list-style-type: none"> • Business systems • Student record systems • Managed/virtual learning environments • Learner support/learner profiling practices 	<i>Flexible specifications developed, allowing diverse processes to produce interoperable outcomes (done: ID6 and ID7).</i>

f) Lack of interoperability of data sources upstream of FE (specifically the need for electronic submission of UCAS data, and for a unique student number)	<i>Involve schools (suggested) Involve CRA (ongoing) New initiative on learner numbers from DfES</i>
g) Lack of awareness among (and input from) learning and teaching staff	<i>To be addressed in next phase (see suggestions)</i>
h) Low commitment from commercial partners in the implementation phase	<i>Phosphorix employed to develop generic i/o agent, with one college developing its own (ongoing)</i>
i) Managing student access to learner profiles on the SHELL hub: <ul style="list-style-type: none"> • Justifying the costs in the case of students with limited participation • Managing a separate authentication system in the context of a drive towards single sign-on 	<i>Ongoing issue</i>

Issues relevant at some sites	<i>(Proposed) resolution</i>
a) Difficulties identifying staff for each working group, with appropriate expertise and commitment	<i>Staff now identified (done) Clarify expertise via FAQs or briefings (suggested)</i>
b) Poor attendance at meetings/length of time spent travelling to meetings	<i>See suggestions</i>
c) Gaps between strategic and operational decision-making	<i>Outside project responsibility</i>
d) Step-change in workload represented by unitisation of course data. (This was an issue at all College sites, but sites were divided on whether SHELL had been a timely intervention, or had forced the pace.)	<i>Clarify benefits to colleges Clarify co-drivers Clarify timescale and degree of coverage required for data transfer (all suggested)</i>

7. **Project processes** were reviewed for their effectiveness. Some project processes had been slow to get going but they were seen as generally effective, and becoming more so. Decision-making at project level was consensual where appropriate, devolved where appropriate. Decision making at site level was improving.

Specific points raised were:

- a) Responsibilities needed to be clearly assigned at each site, especially in relation to strategic and operational sign-off.
- b) Sites and individuals who had failed to participate effectively in project processes sometimes lacked confidence in their own expertise or clarity about what was required.
- c) Product IDs could include clearer criteria for acceptance at college sites.
- d) Issues identified during product review and sign-off – that were not addressed within the product – needed to be fed back into project processes
- e) Project members could make more effective use of computer-mediated communications, especially video-conferencing and Dochive.

- f) An internal newsletter would meet current demands for concise and readable information, and could act as an informal dissemination organ for new partners.
- g) Different formats and locations for meetings could be explored to ensure full attendance.
- h) There were concerns over communication within the technical team, and consequently over its capacity to take informed consensual decisions. These need to be addressed in the forthcoming implementation phase.
- i) The four team leaders were praised for their commitment and professionalism: however the demands on their time were higher than expected, and their dual role as institutional representatives was not always helpful.
- j) Administration of the project was efficient and helpful. Internal communications were not always seen as efficient, possibly due to lack of clarity over responsibilities (at two sites).
- k) The project needed urgently to identify its 'champions', and develop opportunities for them to reach out to:
 - potential new partners;
 - learning and teaching staff at all sites;
 - other stakeholders in the region.

8. These points are addressed, and other suggestions for action are made, in Section 7 of the report.

1. Purposes and structure of this report

The report has four principal objectives, which are dealt with separately in subsequent sections.

- a) to present a rich picture of the diverse **agendas and concerns** brought to the project by the teams involved;
- b) to identify **issues** that have had, and are likely to have, an impact on the achievement of project deliverables;
- c) to provide formative evaluation data on the effectiveness of **project working practices**, including verification of the peer review process;
- d) to offer **suggestions for development** based on the findings of a) to c) above;

Secondary aims of the information gathering process for this report were:

- e) to help project teams at each site **develop a consensual view** of the nature and purpose of their involvement in the project,
- f) where relevant, to offer members of the evaluation and dissemination team **assistance in completing returns** for their first Annual Report, including baseline data for impact evaluation.

These aims are not explicitly addressed in the report but it is hoped they have contributed to the development of effective communication within the project.

2. Data collection and analysis

This report is based on four separate sources of data:

- a) Analysis of returns from each Phase One site for the first year's Annual Report

The External Evaluator contributed to design of the AR pro-forma, gave advice where relevant on its completion, and had sight of completed returns. At the time of writing three returns were still in draft.

- b) Analysis of information collected in the course of structured interviews with the project team at each site;

The External Evaluator visited each of the five Phase One sites and met with members of the project team for between one and two hours. Questions were loosely designed around a structured interview schedule (see Appendix 1a). Some convergent interviewing techniques were used, i.e. where divergent views were found, an explanation was sought that could help to frame both points of view. A transcript of the meeting was then returned to the team, who were encouraged to make any additions or amendments they felt were appropriate.

- c) Analysis of additional information collected in the course of structured interviews with team leaders and senior managers at the University of Plymouth;

Short structured interviews were held with each team leader in order to identify issues of concern in each area of work. Interviews were also conducted with external (i.e. non-project-team) members of the Project Board – in practice all senior managers at the University of Plymouth. Again, questions were loosely structured around

interview schedules (see Appendix 1b and 1c) and again interviewees were given the opportunity to see and amend the transcript.

d) Selective analysis of project documentation

Project processes were tracked for two key deliverables and for two Board-level decisions.

3. Agendas and Concerns

While the implementation of SHELL involves many technical aspects, there are also human and institutional factors involved – both in collaborative development of systems and in ensuring the systems are used effectively for the benefit of learners. For this reason it was seen as a priority to explore the different agendas and concerns brought to the Project by staff at each of the five Stage One sites. In order to help focus on developing consensus, questions were asked about the perceived benefits of the project. However, areas of tension were also allowed to emerge.

a) All teams at all sites mentioned the need to **strengthen partnership** between the University and the Colleges as a key factor motivating their involvement.

Members of the teams talked about this in relation to high-level strategies and senior members of staff (e.g. the new VC of the University), rather than in terms of their own personal or department/unit commitments. Colleges A and C mentioned the revenue that accrued to the College as a result of their offering University courses, but all prioritised the strategic issue of strengthening partnership links. All of the senior managers interviewed at the University expressed a high level of commitment to the partnership, and saw convergence of record systems as an element of this wider agenda. The new status of partner colleges as a faculty of the University was seen as timely, and issues addressed by SHELL had moved up the agenda as a result:

suddenly they're looking to streamline registration, and SHELL has become very interesting because it can deliver what they're looking for. (Team leader)

b) At the level of service areas and teams, the project was seen as offering clear **benefits to administrative staff and systems**. All the site teams and managers interviewed felt that the initial benefits would be to staff at the University of Plymouth registry:

The University have passed the burden of data collection to colleges, and it's proposed that exam boards and panels will now actually be held at the colleges with only the data transferred to the University. (Team leader)

However, the college teams felt that benefits to their own staff would quickly be felt, in:

- bringing data 'under the control' of a central team, thereby:
 - ensuring consistency of data
 - avoiding duplication of data and of data entry processes;
- removing the necessity for multiple requests from the University concerning essentially the same datasets;

- integrating student data systems and practices, to which the SHELL project had contributed (see below);
- moving to transaction level rather than batch level transfer of data.

c) In future, teams anticipated that **academic staff** would have ‘*seamless access*’ to student performance data from their desks:

the more we can set up the administrative systems to ease [teaching] staff use the better (College A)

The issues here were not technical or even business process issues so much as cultural issues on both sides:

It's about how the system is used within the organisation, and seeing academics as users of these systems. (University)

There was disagreement within the two college teams who discussed this issue over what degree of data input should be carried out by teaching staff – i.e. how administrative workload should be traded off against quality of data and ownership by teaching staff. It was agreed though that the teaching and learning process would be made more effective with greater integration of student data, and better academic access to it.

d) **Direct benefits to students** were seen as being further in the future than benefits to administrative staff and systems. Students studying University of Plymouth courses at partner colleges or going on from partner colleges to study at the University of Plymouth would gain from:

- access to online materials and services from the main University site
- access to relevant support materials earlier in the transition process
- access to a record of learning progress
- simplified registration, saving time on paperwork

e) Among the benefits to students, **access to VLE materials** was initially of great interest to partner colleges. Although there were fewer materials available from the University than they had anticipated, there was still interest in access to library services such as journals and to learning materials developed in University departments. Although these are not issues over which SHELL has direct responsibility, the Project appears to have stimulated discussion about issues of service access and log-in to the main site VLE for partnership students:

SHELL is designed to open up the VLE to partner college students, but this is requiring the University to address issues about the access of partner college students to other facilities and services... Partner College students are enrolled as University of Plymouth students but don't always have the same access to facilities. Some questions about access have been simply geographical - but SHELL sets geography aside. So that's another debate that SHELL has been a helpful catalyst for. (University)

This debate had now extended into other issues such as the new student portal and the proposed ID card.

f) Staff at the University of Plymouth were very interested in the benefits to **students in transition from FE**:

Students will come in and we will already know something about them. If they can be given a password, open their front page and find information about themselves, that should make life easier for them and make them feel they are valued as individuals. So I think that's probably the most important thing SHELL can do, if they get it right. (University)

College staff were naturally more interested in finding a data model that would allow easier transition *into* FE from schools, as well as on to HE.

g) Benefits to students of the proposed **lifelong learning record** were also mentioned. Interviewees variously highlighted:

- students' ability to construct CVs and personal profiles
- the benefit of verifiable, credible records of achievement
- opportunities for more effective student support, based on prior learning
- avoiding duplication and re-entry of progress data
- students being prompted to reflect, set targets and plan their learning
- early warnings if student attendance or progress were giving cause for concern.

These benefits were potentially available to all students at the partner colleges. At the University and at Colleges A and C there was particular enthusiasm for this aspect of the project:

I see it really as something we should have done from the learner's perspective anyway. SHELL's just come along at the right time... We want to benefit all FE students really, not just those in HE. It's important that they should be able to show their employers what they've done. (College A)

College D was less convinced, simply 'because we haven't had anyone to champion [the PDP issue] properly for us'. However, at College B there was active dissent as to how relevant this benefit would be:

They want information on all our students so they can give them access to the PDP. But the vast majority of our students are not going to be interested in that service. (College B)

h) The project was widely seen as having been a 'catalyst' in the process of moving towards **general data interoperability** – another key priority for all concerned. All five sites felt that the project had been timely and had enhanced opportunities to collaborate on interoperability issues. A senior manager at the University put the point succinctly:

If SHELL had not come along we would have had to invent it. (University)

The four colleges were in the process of transfer to electronic records, unitisation of data, and integration with other systems, requiring a step change in systems design and data entry workload. The MIS representatives differed, however, in how far they

saw SHELL as having forced the pace. Three described the project as having introduced new aspects to a process that was already under way:

We did have an intention to move to that level long before SHELL. But this has helped us do it. (College D)

I would have said we were doing it before, and it's just the case of fitting in and tweaking anything we've got to make sure there's compatibility. (College C).

It's probably made us think more formally about where each part fits in (College A)

However, at the remaining site the key player stated that:

There are benefits [to unitisation] but I believe they are outweighed by the costs. (College B)

The same interviewee felt strongly that the SHELL project had pushed the college too far, too soon, and had been 'more of a driver for this year' than was helpful.

Again, the University of Plymouth was seen as the early beneficiary of interoperable data transfers between institutions, while the colleges saw themselves as 'stuck in the middle' between schools and HEIs or employers. All teams made the point that the full benefit of data interoperability and standardisation would not be felt until the process was effective right the way through from schools. Individual members of the project were divided on whether the SHELL specification would be a stepping stone to a future national standard, or whether it was likely to be superseded by other developments.

i) There was a general sense that **involvement in 'cutting edge' developments** of the kind represented by SHELL was a positive benefit.

It's a really relevant, topical thing to be involved with, and a college like ours that aims for excellence has to be involved in projects like that to keep driving forward. (College B)

Specifically, several participants were positive about the opportunity to have an input to a developing standard at the ground level.

I'm extremely positive, because I think it's got longevity ... And the fact that we've got a lot of institutions talking, who are all going to come out with the same format... (College A)

being part of the project at this stage allows us to have some influence over the specifications that emerge, instead of just being told 'here it is' (College B)

you don't necessarily want systems being imposed. You need a dialogue so there's feedback both ways. (College A)

However, one was less convinced that the SHELL specification would necessarily prevail:

It seems to me that the world of PDPs and development planning is changing faster than SHELL can keep up... There are other alternative ways of keeping learner information that might be easier for the college to use than whatever Shell offers us (College D)

And the developmental status of the SHELL specification had also caused problems. Development teams and commercial suppliers were keen to ‘*get on with the job*’ of developing the software to an agreed specification. One reason suggested for commercial stakeholders apparently losing commitment to the project was the protracted nature of discussion over specification, though this view was outweighed by others.

j) The question about reasons for involvement in the project was deliberately phrased to allow participants to explore **personal motivations** as well as institutional interests. Team members at two sites offered accounts of their personal history and commitment to the project.

I think my name came up when it came to thinking of people who might be committed to the project, (College C)

It provided an opportunity for the convergence of a lot of agendas in which I’ve been involved – progress files, transition to HE, and widening participation (University)

For me it was all about sharing of good VLE materials, getting people to collaborate on supporting learners, and putting into practice the HEFCE directive on PDPs in a meaningful way. (University)

It is possible that the context of the interview led members of other college teams to feel that their role was to ‘represent’ the view and interests of their college, rather than to answer in a personal capacity.

4. Areas of potential tension

In addition to the issues discussed above, the following areas of potential tension were identified.

a) The **diversity of students and study opportunities** seemed to present an area of potential tension. From one FE college:

There are students coming to do HE on University of Plymouth courses for whom the project’s objective is a positive benefit. But at the other end of the spectrum there are students accessing our provision for totally different reasons, and the project doesn’t impact on what they’re trying to achieve. (College B)

Though other sites felt there were potential benefits to all students, there were still conflicts between the effective integration of data systems and the need to respond flexibly to learner needs.

in terms of single systems that fit everybody, I don’t think that’s going to happen here. That will make it hard to realise the original SHELL aims. But I think people now recognise that. (University)

All the teams involved in the development and signing off of ID7 (the learner profile specification) acknowledged that it had been difficult to find a formulation acceptable at every site, but the negotiations were universally seen as valuable, and the diversity of learners and learner outcomes was felt to have been accommodated in the final spec.

b) The **delay in dealing with VLE issues** within the SHELL framework was another area of potential conflict, as FE colleges had been required to make key decisions on VLE implementation in the 2002/03 academic year. However, at no college had VLE implementation been completed, or the issue of integrating data outputs with other student record systems fully resolved. It was agreed that the SHELL project could still provide a timely impetus to this process.

The major stumbling block to integration of VLE access across the partnership seems in fact to be the decision to base the University MLE on Exchange, while colleges were being encouraged to purchase their own off-the-peg systems. Given that these decisions had already been taken, SHELL has opened up opportunities for discussion at both technical team and faculty level about improved partner student access to University online services and materials.

c) All sites now recognised that there would be significant difficulties and costs in sending **authentication data** to the SHELL hub, particularly in terms of staff time and data security. This issue was also '*coming in as a side-ball*' to the development of single sign-on for students: '*It's not a technical problem, it's just a process problem of how one goes about administering a whole new set of passwords*' (College D). Another MIS manager felt that the problems were more serious:

legally we can't just give someone data, for example to issue a student password. So there's a whole series of topics that need to be addressed, which have been ignored. (College B)

This area of concern needs to be addressed if effective collaboration on data transfer is to continue (see section 7: Suggestions).

d) The somewhat **differing agendas for participation** across the consortium were frankly acknowledged on all sides.

FE has to spend a lot of time acquiring funding, and the biggest issue is retention. So there is a lot more development work done in understanding why students stay or leave... although the colleges want benefits for the students, there are cost implications to the added burden of recording data. So where do you draw the line and say this is going to cost too much? (College C)

As colleges are starting from different points of readiness, with one college not even having a password system in place, the cost-benefit equation may well stack up differently on different sites. Individuals at the same college may also perceive the costs rather differently. However, college teams were fairly unanimous in their concern to ensure benefits for learners.

Members at the University, however, mentioned a wider range of local and personal issues. There was diversity of emphasis and '*differences in background/culture*' (Team leader) rather than actual conflict. The complexity of central services meant that it was easy for project tasks and activities to be allocated to separate units with their own management structures and internal agendas, and perhaps thereby becoming '*ends in themselves*'. As noted,

100% of FE college activity is learning and teaching, but the University doesn't see life like that... The University has recently been given a strong heave towards research productivity. (University)

The need to counteract this '*strong heave*' may be one reason why team members at the University tended to see their participation in terms of personal commitment or vision of the benefits to learners.

The project clearly needs both visionaries and pragmatists if it is to succeed. An important strength is the range of issues addressed under the rubric of integrating learner data, which means that institutions can buy in to the project while prioritising different strategic outcomes. One interviewee pointed out succinctly that the project is inherently concerned with the resolution of diverse perspectives:

you're trying to have a data collection system and process by which everyone can move around freely, but politically each college is encouraged to buy a system of their own. So you have to make all the systems plug together somehow. (College D)

It was also recognised by a number of participants that the diversity of experience and perceptions, if it could be resolved, would make project outcomes easier to implement in other colleges and contexts. With the exception of authentication data (issue c), none of the issues identified seem to present a serious difficulty to the development of consensual solutions in which '*everyone can move around freely*'.

5. Issues identified as impacting on the achievement of project deliverables

General issues

Project activities were perceived by participants to divide into three general areas: meetings and events; preparing for local implementation of new systems and processes; and developing and signing off project deliverables such as reports and specifications. These activities, and general issues arising, are dealt with in this section. Issues arising from team activities are dealt with in the next section.

a) Colleges B and D focused almost exclusively on the requirements of **meetings and events** in discussing the activities they had undertaken. The perception in both cases was that the time committed and the distances travelled had been excessive, and this is dealt with in more detail in the section on project processes. It is possible that these college teams did not find discussion at meetings particularly well focused on their immediate concerns. Team members at College B also suggested that their personal expertise was not well matched to the teams in which they found themselves, and that they had felt '*sidelined*' as a result. They admitted that the situation had improved, and they had '*learned a lot about all these issues*' in the process, but perhaps '*there should have been a job spec*' to help them match people to roles at the start.

Other sites spoke positively about the benefits of meetings, especially the larger-scale events where there had been a chance to meet people beyond their usual working party and to get a sense of the wider significance of the project. Time and availability were ongoing problems from the organisational perspective. This is commented on again under project processes.

b) **Preparing for local implementation** was a priority activity at all the colleges. Two were waiting for i/o agents to be supplied by Phosphorix, but were already well on in planning staff training and workload changes, and developing data input

interfaces. A third had undertaken data trials to ensure they had the technical expertise to manage data transfer between the local system and the hub, for which they will not be using a Phosphorix agent. Apart from general delays caused by the long hiatus in appointing a technical team leader, all colleges felt it was too early to identify issues in local implementation.

c) **Achieving deliverables** – particularly ID5, ID6 and ID7 – was highlighted as a major activity at three sites, including the lead site. Reaching consensus between and then within institutions had required a significant investment of time and effort, but was perceived at these sites as having been worthwhile:

I think the process of negotiation and dialogue that took place was interesting... It's developing a shared understanding of what different terms mean in different contexts (University)

We got a lot of feedback and came up with a lot of different ways of doing it... I think colleges have started working more closely together on implementation (College C)

Signing off deliverables was discussed at all sites but particularly at two, where there had been some difficulties reaching consensus. Perhaps because of changes in personnel, the individuals interviewed at these sites seem to have felt less involved in the actual development of the deliverables concerned. With more stable team membership this should be less of an issue in future (but see under Review and sign-off in section 6).

d) **Staffing and workload issues**

Most college teams have seen substantial changes in personnel, and while some of these have been incidental – the result of illness or moves to other institutions – others seem more endemic to the nature of the project.

You're dealing with an area where the expertise is in demand, which is why people have been seconded out and staff have changed. Those who haven't changed... are mission critical to the college and can't be released at times that the project happens to need them. (College B)

Secondments, reorganisations, changing responsibilities, unpredictable levels of demand and scarcity of technical expertise: all these were reported and all are characteristic of work in a cutting-edge area of institutional activity.

Recruiting for the technical team had been particularly problematic, and was exacerbated by the resignation of the technical team leader:

the university was very backward at finding a replacement pro tem. We were without any technical input for six months, and that really put us back a long way. (Team leader)

This problem seems to have been dealt with in an imaginative way by bringing an external software developer on board to lead up the technical team effort. The Project Manager noted that this gave the project access to 'more resource [in terms of expertise] than we would have had with one person'. Issues arising from this decision are dealt with again in the section on team working, under Project processes.

Some members of project staff had time bought out on the SHELL project, but this was often 0.2FTE or less, and in many cases the level of buy-out was set to fall. This was based on an assumption that SHELL project tasks would be rapidly integrated into the ongoing roles and responsibilities of staff in the area of student records management, systems administration, learner profiling etc. In most cases this appeared to be true:

it is an extension [of my role], very clearly, and it is a lot of extra work, but it is a very logical extension (College C)

I feel able to take this on because I see it as part of my whole role (College C)

We... saw the synergy with the way we wanted to move forward, but this is on top of the day job. Sometimes they are the same priorities, but sometimes they're not. (College D)

However, as these responses indicate, most team members found that the level of project work had been higher than they expected. Some accepted this as the nature of a development project:

I have found it very hard because of all the developments going on in the college this year to find the time to devote to [the project]. I think everyone else has probably found that too. (College A)

However, one team clearly felt let down by the project in terms of workload:

The project has required a level of commitment that exceeded that which was talked about when it was initiated (College B)

Buy-out at department or team level often did not mean that the individual concerned had any *de facto* reduction of workload, again because their role might be mission critical for the institution. The staff in team leader roles had particularly high levels of demand on their time, and their perspective is explored in more depth later.

A specific staffing risk arises in the short term because delays in technical implementation have forced some project activities to be carried over into the second year of the project. At several sites there is no further money to buy out staff time, and these activities will have to be carried out by staff on match funding.

e) Data management issues

Mapping the output of existing institutional data models and processes onto the data demands of the SHELL hub is the major technical issue facing the project, and all current activities are oriented towards this task. Most individuals responsible for these tasks felt that their role as well as their responsibilities had been enhanced. One also described the college as empowered by the changes:

In the past we've used Plymouth's enrolment form and all of their paperwork. Now we're going to produce our own, which actually works out better for us, to be honest. Because we can use it for our other HE students that aren't Plymouth. (College C)

However, one interviewee felt that the data management demands of the project were unwarranted:

I've said we don't intend to submit data on all FE students. The board are trying to move to a position where that is there as a requirement. (College B)

Most team members were reassured by the fact that SHELL had gone down the route of mapping to common data and business process outputs, rather than requiring the processes themselves to be standardised (see under Business administration and integration, below).

The lack of a usable unique student identifier had caused problems in data mapping, as mentioned by two teams. It was noted that a recent report from the DfES on their Unique Learner Number may help resolve these issues.

The picture of how tracking information was generated, and in what form, remained complex. SHELL provided a solution to how this data was represented to and accessed by students, and the SHELL PDR format might therefore have implications for how other systems – e.g. the developing VLE – were used for tracking in the future. But most colleges expressed these implications in terms of good practice, rather than in terms of data constraints:

the fact that we've got a number of institutions talking, who are all going to come out with the same format. It's unheard of! (College C)

f) Institutional support issues

All site teams asserted that they had senior management support. Other issues had come to the fore in the first year – for example there had been a merger and external review at one college, a shake-up of senior management at another college and a new Vice Chancellor at the University – but the project was seen to be climbing the list of strategic priorities.

I think the decisions will come, in the areas we want them, at a higher level, because other pressures have been removed. (College C)

The new partnership arrangements and the funding emphasis on student retention and lifelong learning had made the project particularly relevant to current senior management agendas.

It was not always clear how senior management support translated into operational support in units where implementation work was taking place – for example on the issue of *de facto* buy-out of staff time, and outlined above. This is dealt with in the section on decision-making in Project processes.

Match funding and buy-out were seen as particularly problematic at the University, where team leaders had received variable levels of support for ancillary tasks and had frequently done project work in their own time. Requests to replace the technical team leader *pro tem* did not seem to have been acted on.

g) Staff development issues

Training and development for staff who would be involved in the new data processes was generally seen to be well in hand. College C was perhaps furthest forward with this, and the person responsible for supporting staff was herself closely involved in the project. The consensus seemed to be that staff training should be integrated with the general roll-out of new systems:

because we've embedded unitisation in our enrolment processes, all staff will be involved through that means. They won't necessarily know it's SHELL but they will be doing what's needed. (College C)

Similarly with development and awareness-raising for teaching staff, the perception was that this should be part of a general process of ‘*integrating technology into delivery*’. One college had plans to integrate use of the new student records system into its Independent Learning Centres – computer-resourced centres in which teaching staff were already becoming familiar with the use of technology in a teaching context. The FERL practitioner modules were mentioned at Colleges A and D as a route through which teaching staff would become familiarised with the new systems, and ILT champions as another. A pilot study at one college had carried out staff development through:

the link person in the departments... It was more like mentoring than training, so people were not failing in front of strangers but in a context they were familiar with (College C)

h) Timescale and phasing issues

Due to the close inter-relationship among the different strands of the project, delays in any one area can have consequences for everyone involved. Everyone interviewed felt that the start of academic year 2003/04 would be a crucial test of whether the technical teams – working with implementation teams at each site – could catch up on the delays in technical development and put the project back on track.

It was part of the project plan that different activities would come to the fore in different phases:

inevitably where you have a project like SHELL which has a number of objectives and aims, including business processes, learning and teaching, and IT, at some time or other one of those will take precedence. (Team leader)

However, interviewees felt that learning issues had taken a back seat during specification and implementation of new systems. This had not always been helpful in terms of awareness-raising among a wider group of stakeholders. The issue is dealt with later in Project processes.

i) Issues in partnership development

Since this was identified as a key motivation for involvement, it was significant to find that SHELL seemed to have had a generally positive impact on relationships within the partnership. A senior manager at the University said of the project that:

We are in effect all colleagues within the same institution, rather than institution A instructing college B how to operate. Also I have to underline that the University has actually got a lot to learn from the colleges. We are not sole possessors of wisdom about how to manage HE. (University)

Areas where he felt the University could learn from the colleges included recording attendance, monitoring progress and enrolment processes. Participants at two colleges also mentioned the changing nature of the dialogue:

the SHELL project has made us talk at a different level with University and there's now a creeping regard for FE and its system... I think we've got more respect. (College C)

j) A related and unanticipated benefit had been the potential for detailed practical discussions with corresponding members of staff at other institutions. Every team

offered concrete examples of SHELL catalysing collaboration or information sharing with other colleges, including on issues not directly relevant to the project.

Colleges are very insular, or tend to be... [SHELL] made us look at it in a wider context. Also we might not like to admit it but I think we listen to other people in our sector, talk to them more ... And the SHELL project has made us talk at a different level with University. (College C)

We don't have a VLE. If we weren't in the project we'd lose a valuable and pragmatic forum for discussing this' (College B)

On data protection I have had contact with [another college] that I wouldn't have had otherwise (College B)

... the ability to see where other colleges are up to on their VLE/MLE development – to learn more about those systems and what is and isn't working – has been good (College D)

We had one week where we demonstrated the different processes we all use now, whether paper-based or whatever, which was really interesting. (College A)

k) Project participants also highlighted ways in which SHELL had also promoted new forms of **internal collaboration and discussion**. At College B, although there had been difficulties in identifying which staff should attend which working group meetings, this had ultimately led to a productive sharing of expertise. And a senior manager at the University commented:

SHELL has done much to break down what might have been a divide between academia and administration... we're seeing more and more academics and administrators developing systems which meet their joint needs, rather than in the past where you had your Management Information Systems, which academics wouldn't access or even see... Students are legitimate users of the data as well. So SHELL has been another helpful catalyst. (University)

Issues arising from specific team activities

a) Business administration and integration

Diversity of practice across a wide range of business processes, from student applications and enrolment to recording of exam results, led the BA&I group to decide against a single solution to business process design. Instead, ID6 offered a set of outcomes for data mapping, and a process of sharing best practice in delivering those outcomes. Sharing of practice had already taken place, with colleges presenting system maps and walkthroughs.

We've come up with a broader brush approach, not redesigning colleges processes for them but working with them to help them achieve the necessary changes to meet the project's objectives (Team leader)

The other significant change to project plan was the decision to limit submission of FE course data to just 6 courses, in recognition of the challenge colleges were facing in recording data at module level. Another team leader pointed out the risk that SHELL might be seen just as a pilot project, and the opportunity to transform institutional processes might be lost:

The main issue is that it reinforces the idea this is a pilot, it's a project, it's a trial, and we don't have to use it. (Team leader)

In the event, however, some colleges had pressed on with plans to unitise data across the board anyway: *'we don't want to complicate things'*. At other sites, piloting the process with a small number of courses may turn out to be an effective way of demonstrating the benefits.

The other impact of this decision, as noted by the BA&I team leader, was that:

we still have to tackle the issue of what student info is going to be transferred to the learner record (Team leader)

This debate – overlapping with debates in the Standards team – needed to take into account some very short training courses offered by FE colleges, sometimes in contexts where students would never attend at a college site.

In order to draw the widest possible range of relevant staff into discussions, the BA&I team leader had visited every site no less than three times. Her dedication was remarked on by the site teams, and seems to have been effective in delivering a consensual outcome. It has to be pointed out, though, that this may not be an effective working model for other teams with part-time team leaders (see Team Working in Section 6).

b) Standards

As with the BA&I team, the main issue had been the diversity of existing practices in recording student progress. Most interviewees noted that the level of detail collected in the FE system was higher than in HE, partly due to the complexity of the qualifications structure. Colleges also collected data not directly related to qualifications, including skills development, learning preferences, training events attended, and other qualitative aspects of the learning experience.

In FE you have the whole raft of special needs students, with psychological reports and so on that go to make up the profile...(College D)

...and basic skills, individual learning plans etc tie in as well. From my perspective, I think we all subscribe to the bigger picture of it (College D)

That is one of the major differences between us and Plymouth – we actually generate a lot of qualitative information we keep on students (College A)

Participants at the University agreed with this assessment. While in colleges the process of personal development planning was generally well advanced, at the University it was described as *'voluntary and piecemeal'*.

At University for example we don't yet have a progress file strategy.... So we've been working in a vacuum to some extent (University)

From the colleges' perspective, then, the challenge was arriving at a specification that would allow existing personal development data to be represented in an electronic form. From the University's perspective, the challenge was to move beyond the existing electronic 'transcript' of results towards a standard that would encourage other aspects of learner development to be recorded.

One issue in negotiating this process was a terminological one. Following objections from the University registrar, the term ‘transcript’ was agreed to refer to a record of learner achievement belonging to a particular institution. The term ‘learner profile’ was adopted to refer to the accumulated record of learning that belongs to the learner. Several interviewees pointed out that this went against the aim of simplifying access for students:

We seem to have ended up with two transcripts instead of one. (University)

Whether the ‘two transcripts’ solution causes confusion for students will depend on how access to both is managed through the learner interface. Meanwhile it allows progress to continue on the lifelong learner profile, while institutions retain control of the achievement data that carries the seal of their institutional authority.

Within the learner profile, further issues of conflicting terminology and usage arose, for example in relation to key skills. The decision to use the national key skills framework is one example of the team using established standards and terms, and this should help the SHELL specifications gain wider acceptance.

As with the BA&I solution, and for related reasons, the Learner Profile specification allows data to be mapped from one system to another rather than requiring changes in the process of data recording at source. This is fundamental good practice in the development of specifications

if people were driven into one PDR and all had to use the same headings because the technology drove it that way, then that would be a conflict with good learning and teaching practice. (University)

Of course there is always the possibility that, once process outcomes are specified, processes themselves will be realigned. But at the University at least, this is regarded as a potentially positive outcome:

SHELL has done much to move debate about PDP strategy on. There is obviously pressure from outside the institution nationally, such as QAA, but SHELL has very much raised the profile of certain issues (University)

c) Evaluation and dissemination

The processes of peer review and signing off deliverables, along with internal dissemination, are reviewed in the following section on project processes.

Evaluation of the roadshows (ID5) found that they had been valuable to project members for discussing issues and developing a shared vision of the project. The initial workshop in April 2002 had fulfilled a similar role. In terms of disseminating project aims to a wider group of stakeholders, however, they were less successful:

it tended to be MIS people and managers. Academics, academic support staff, library staff and learning support teams etc. were noticeably absent. (Team leader)

The initial briefing paper did address learning and teaching issues, but the nature of initial contact – via senior MIS managers – may have meant that it did not reach managers and staff in academic areas.

A senior manager with learning and teaching responsibilities brought up another issue that may have been relevant:

the first phase is a very invisible phase. There's nothing sexy about it, nothing to look at, no front end. It's all about the systems that run behind. (University)

In coming phases, teaching staff would need to see the new systems working in order to think creatively about how to use them with students. The same went for students themselves, who would obviously need to be involved in developing the interface for the learner profile.

d) Technical development

On 16 January, the Project Board approved a contract with Phosphorix to develop the central part of the SHELL infrastructure. This was to replace the technical team leader's post, which had been unsuccessfully advertised and interviewed for on three occasions. The External Evaluator was not able to interview the new team leader(s): however, the appointment of Phosphorix was welcomed by all project members. It is the nature of the project that deliverables from the different teams are interdependent, and the long hiatus in leadership of the technical team had caused inevitable problems for everybody:

Not having the technical person in place made our lives a lot more difficult. In some cases I didn't know if there was a business process until the technical end had been sorted out... We've done it, but it's been more fragmented than it should have been (Team leader)

As technical consultants, the team were described as 'beyond compare', and it was noted gratefully by the University team that they had 'removed [the recruitment] problem from the project'. One team leader felt that the consultants' separation from the networks and cultures of the colleges might prove a problem. Another felt that this was a positive advantage.

A second contract had also been signed for Phosphorix to develop an i/o agent that would significantly reduce the effort needed from suppliers. This approach had been approved by four sites. The fifth had opted out of the i/o agent system, choosing to fund a member of their own technical team to build an interface for the data. Having carried out data trials:

We think we have the expertise and resource to do so ourselves...

The core team were happy that one college was pursuing a different technical route, describing it as 'a very valid alternative model'. They were also convinced that the i/o agent would be an innovative and scalable addition to the data hub.

Though one person remained unconvinced of this decision, interviewees generally felt that the i/o agent was the only available option, given the lack of commitment from suppliers to develop the necessary IMS interfaces.

Implementation of the project in September 2003 is now dependent on Phosphorix delivering the hub infrastructure and i/o agent in time. However, the risks would appear to be less than if the project continued to rely on the goodwill of its commercial partners. The Project Manager reported that:

some suppliers worked with us on specifications, but their attendance started to drop off at the point where development really needed to get underway.

Two interviewees were critical of the original project plan in this respect:

It was naïve to think they would keep coming to meetings for nothing when they usually charge a thousand pounds a day... and delay in technical development did make it harder for the suppliers to maintain a commitment (College A)

A continuing risk was that the college elected as the first site for implementation was in the process of switching over to the Unit E from the Delta version of the Capita system. This also needed to be complete in time for the September pilot.

However, despite the long hiatus in leadership of this area, now that colleges were moving towards implementation the input of local technical teams was described as ‘superb’:

They have put time into it, and none of them are being paid any more or relieved of any duties for doing that, and they have been very helpful. (Team leader)

6. Project processes

Happiness with project processes was in direct relationship with degree of participation, across individuals and college sites. High participation was associated with a perception of project processes as collegial, while low participation was associated with a view of them as bureaucratic and over-complicated. Cause and effect are difficult to untangle in this scenario.

There was a general perception that project processes had been slow to get established, and it had not been clear at the beginning who was responsible for what at each of the partner sites. But responsibility for these delays was on the whole collectively accepted: it was felt to be ‘*in the nature of the project*’ that roles and tasks had emerged over the course of the year. As the project moved into an implementation phase, each team felt they were beginning to work more effectively together.

Project processes – with their product specifications, sign-off procedures and schedules – seemed somewhat more congenial to staff with an IT/MIS background than to the staff with a focus on learner profiles or organisational change:

Sometimes I have felt overwhelmed by the need to meet product deadlines, which I know cannot be met with a “product specification” (Team leader)

Delay to the appointment of a new technical team leader was seen to have had an impact on project timescales across all areas of work. The delay seems to have been principally due to the lack of candidates with suitable expertise, though the situation might have been alleviated if the University had been able to reallocate another member of staff pro tem.

a) Reviewing and signing off

The review and sign-off process were tracked for deliverables ID6 and ID7. All colleges had filed acceptance documents for these, though one site had still not provided a review for ID7. The documentation seemed clear and to the point and had

been used appropriately. The primary evaluation and peer review pro formas encouraged difficulties, lessons and concerns to be identified.

It was suggested by one interviewee that product review would be simpler if teams were asked to *'say what we were going to do, say how we were going to measure it, and then ask have we measured the outputs against that'* (College D). In fact this is exactly what the primary evaluation statement does. The peer review statement is currently designed to be simpler, with each site asked to assess the appropriateness of the product for their own implementation. However, this leads to a certain circularity about the 'verifiable indicators', with the primary evaluation statement referring to 'acceptance' by each site as a verifiable indicator, and the peer review statement requiring acceptance against these same indicators. Some suggestions about this are made in section 7 and these may help to clarify the process.

The process of reviewing and signing-off gave rise to negative comments at every site. The evaluation team leader was frustrated that *'documents circulated for discussion often fail to achieve a response'*, and three of the five sites visited took an opportunity to complain about delayed responses from the other two. These sites in their turn stated that they found the procedures unnecessarily over-complicated.

The variable quality of peer review also emerged in interviews. At one site, the evaluation representative conducted interviews with all relevant staff members to make sure that deliverables were effectively quality assured. At another, the representative was unaware of an approaching deadline for review and conducted it at the last minute by mobile phone, with another member of the team at a tube station.

Investigation of the review and sign-off process found that all members of the project team were given advance warning of relevant deadlines. However, sign-off may have been difficult to assign to appropriate individuals due to changes of personnel. An exercise has now been carried out in identifying staff at each site for strategic and operational sign-off, and this should clarify the process considerably.

College D admitted that their team might have *'contributed to the confusion'* but identified an important issue:

All the colleges have delayed in signing things off more than they should have done. But that's all to do with knowing what it is you're signing off (College D)

it's who is able to agree things, because people may not have that expertise to do so. It's about understanding what the deliverable means, and that can be quite involved. (College D)

Now that the project has been under way for a year and several deliverables have been signed off, site teams may feel more confident in their own understanding. It seems important to register, however, that the project demands a wide range of expertise in technical, organisational and educational issues, many of them cutting edge. It may be difficult for individuals to ask for issues to be explained when they perceive their role as 'representing' their institution in an expert forum. It may be equally difficult for those who have worked with the issues over several years to recognise just how 'involved' they are to relative newcomers. Several suggestions are made in relation to this observation (see Section 7).

Participants in this study were explicitly asked about their use of Dochive to review documents and deliverables. Dochive had been used by all members of the evaluation team, though by few others, and was described as helpful by nearly all users

I really like the idea of being able to upload yr own documents, and subsequently amend them. It's very helpful... because you can look at other people's feed back and see what's expected of you. (College C)

Having the evaluation and other data there gives us a chance to look at information from other sites. (College A)

We've started evaluating products a lot more speedily through the use of Dochive. We wouldn't be nearly as far along the signing-off process now without it. (University)

But one found that:

Dochive has been no use at all, it's got in the way really. It isn't an easy system to use. (College D)

Several other users confirmed that they had found the system difficult to navigate at first, and that the interface was not intuitive. A need for stricter version control was mentioned by one user.

Sign-off is a particularly contentious issue as it acts as the trigger for payment from project funds. All four college sites mentioned delayed payment as an issue, so the system of peer review is a crucial area of practice that could be improved. Overall, peer review was regarded favourably where it was seen as a process of 'review[ing] what's going on' and 'sharing good practice', less favourably where it was seen as an administrative process. One site manager commented that:

By comparison with the EU projects, we seem to have put together a hugely bureaucratic process for a fairly light audit output ... The strength is that it is a partnership with 100% consensus before things can move forward, but that does tend to slow things down. (College D)

b) Decision making

At four sites there seemed to have been gaps between strategic and operational decision-making in relation to the activities of the project. For example:

Although the University has bought into the project as an institution, no-one in the separate units has. You have to do the work to persuade managers at that level (Team leader)

This had resulted in occasional:

- difficulties in identifying staff with both the authority and the requisite understanding to sign-off deliverables (though this seemed to have been addressed with the separate identification of responsibilities for strategic and operational sign-off at each site);
- unwillingness among operational staff to prioritise SHELL activities – with the exception of technical development activities;

- uncertainty over whether project staff had the authority to request changes to (e.g.) business processes when talking to departments and units in their institution;
- resentment among project staff, who were taking on extra responsibilities without reduction of their existing workload – essentially a management issue.

Tensions were also anticipated between decisions taken or agreed by central service teams, and actions at the level of learning and teaching departments. This was not yet an issue for the project, but might become so once the focus moved to use of the new systems in practice:

as the systems get better there are more opportunities to do things efficiently through centralisation, so a decision will have to be made. But [at the moment] there's no-one at the top level saying 'this is the standard way of doing it'. (College A)

An alternative perspective on this, offered by the University, was that central decisions needed to retain the flexibility that would be demanded by learning and teaching departments. This would only be possible if learning and teaching staff were fully involved in the developing standards and systems.

Gaps in the decision-making processes of colleges were clearly outside the responsibility of the Project:

the project itself can only highlight the questions that need to be answered... The project can't require changes to be made. (University)

However, as with sign-off, it seemed to be in the nature of the Project to require decisions in areas of institutional activity where the lines of responsibility were tangled or contested:

because of the nature of this project it can't stay within one department (College D)

locating the right people to involve in strategic discussion and then the right people to make things happen is difficult (University: speaking in general about the institutions involved)

Within the project, decision-making was generally felt to be consensual:

we've been very involved (College D)

we've had an active part (College A)

As with sign-off, however, the core team felt that decisions were occasionally not taken effectively at partner sites, giving instances where there had been delays to the project because a key team member had not been identified, or a key deliverable not signed off. Minutes show that these issues had been raised at Board meetings but did not appear to be acted on back at the college, again suggesting a gap in decision making between strategic representatives on the Board and operational managers on the ground. The college that seemed from the record to have had most difficulties returning timely decisions was the only site at which the level of involvement in decision-making was felt to have been unsatisfactory. It may be difficult to untangle cause and effect in this case.

Two specific project decisions were tracked by the External Evaluator. These were (i) the decision not to adopt either of two access management systems highlighted in a JISC report; and (ii) the decision to fund Phosphorix to produce an independent i/o agent. It was found that the Board had been appropriately involved in both cases. Operational reasons for his recommendations were given by the Project Manager, and in the case of (i) were fully approved by the Board. In the case of (ii), because reallocation of funds were involved, college teams were asked individually to accept or reject the recommendation. One college opted out, and both the site concerned and the core team appear to be entirely happy with this decision.

In relation to technical decisions, however, there are risks as well as benefits in employing a commercial firm outside the decision-making structures that exist at college sites. Phosphorix has apparently made efforts to contact technical representatives from the participating sites, but with little response. There is clearly still work to be done on all sides if the technical team is to work together effectively, and if colleges are to have appropriate input to technical decisions:

[on the technical side] there is a slight worry that there may be something going on that we are not fully contributing to (College A)

At the college site chosen for pilot implementation, internal decisions seemed to have been taken in an exemplary way. The senior manager most closely involved in the project had taken personal steps to ensure it was prioritised at the appropriate level. The manager with the most significant operational responsibilities – at least in the implementation phase – had been ‘empowered’ to make the necessary decisions with respect to staff training, prioritisation of tasks and workload management. This site had fully participated in collective decision making and review processes of the project.

The pilot implementation at will be an important benchmark of how well Phosphorix and the college technical teams are able to collaborate, and it is hoped will provide reassurance to other sites that the chosen technical solution is flexible and well-supported.

c) Team working

Interviewees were universally positive about the separation of responsibilities into the four team areas. In fact they were hard pressed to see how the project could have been organised differently. There had been some difficulty identifying who should attend which team meeting, particularly at the colleges where, as discussed, individuals often had overlapping areas of responsibility. In most cases this was seen as the nature of the project, as roles and responsibilities had been emergent.

It would have been hard to foresee before we started out (College A)

The project was seen as developmental from the start... Because of that, different expertise needs to be brought in.(College D)

However, the view at one college was that the project should have taken a more active role in defining responsibilities:

It wasn't clear when we went into it that there would be these roles, but what would have helped us would be something from the centre saying that in your role on this committee we need you to do this. (College B)

Communication and collaboration within teams seemed to have been effective, particularly at face to face meetings (though with the provisos on attendance noted under 'Meetings' below). Communication between team leaders was also felt to have been extremely productive. However, communication was not always as effective within institutional teams:

If we'd set off with a structure of institutional meetings, as we did the teamleader meetings, and embedded them as an expectation, then I think that would have worked well. (Team leader)

One college had sites across a large geographical area, though (perhaps for this reason) seemed to have done most to ensure formal opportunities for local team members to meet.

At the University there was acknowledgement that the four-team approach had led to a separation of powers:

we've never met as a university team because you'd end up with so many different factions it might be more counter productive. Potentially it ought to happen though. (University)

d) Leadership

The role of the four team leaders and Project Manager was through the structured interviews and short further interviews with the individuals concerned. They described their role as involving development work, internal communication and building consensus, as well as providing a lead in activities, disseminating outcomes, and linking the work of the project with wider national agendas.

All four team leaders came in for praise for the way in which they had carried out their role, including for:

- Dedication in visiting college sites to involve staff and develop consensus (BA&I)
- Commitment to developing internal communications, and to inducting new members of the team (E&D)
- Efforts to bring the technical team together after a long hiatus (Technical team leader at Phosphorix);
- Enthusiasm, commitment, and impressive awareness of the national scene (Standards)

And while interviewees were sometimes critical of project processes, they often went out of their way to add that the team leader was not at fault. In fact there are no instances in any of the transcripts of direct criticism of the project's leading staff.

Team leaders reported spending up to three times the allotted proportion of their time on project work, and in all cases had managed the conflict by putting in extra hours. Clearly the project has benefited from this investment, but it must be asked how long it can continue without burn-out. The consequences of losing a team leader have already been documented in this report.

Four of the project's key players were in fact working in dual roles, coordinating activities (and managing potential conflicts) across all five sites, while also working to embed project outcomes specifically into (and represent the interests of) their own institution – in three cases out of four the University. This duplication was mainly an

issue for the workload of the people involved, but a potential conflict of interests was also involved. In one case the team leaders had identified someone else to represent their 'home' institution on the relevant team. However, constraints of funding meant that this had not always been possible. And one team leader felt that the problems were in any case balanced by the benefit of being involved '*at an operational level*' in one institution, and therefore understanding the issues facing other members of the team.

e) Internal communication

As outlined above, there was a sense from two of the colleges involved in the project that the sheer volume of internal communication was unhelpful. One interviewee spoke of 'the difficulty identifying exactly who was responsible for commenting on, reviewing and signing off each document' problem was that the Doctave system reported to users whenever a new document was added, but did not give any indication whether this was for information only, for comment, or for urgent action. And on email communication generally, one interviewee felt that the project could '*be sharper on our protocols. When we send an email out it should say for information, for action, or whatever.*' (College B) Another member of the same team asked for 'It has to be said that the communications from the project administrator seen by the External Evaluator have been concise and clear. Project emails are distributed by working group, with team leaders indicating to the project administrator what information needs to be sent out. The project administrator also sends a fairly large number of emails reminding individuals and teams of upcoming deadlines. It is difficult to see how this information could be cut down without jeopardising project processes.

It may be that the problem is one of interpretation rather than volume of information. Most project communication is focused on structured documents, the language of which is repetitive and formal. The E&D and BA&I team leaders have proposed an internal newsletter for '*keeping people in touch in a lighter way*'. This may help to personalise communications and allow a clearer sense of project identity to develop.

f) Meetings

Large-scale events and whole-project meetings were all positively perceived by the project team:

When we had those days of meeting all together, though, I think it was useful for the different teams. (College D)

they've worked well in terms of sharing issues and concerns (College B)

The usefulness of meetings with JISC representatives was also commented on by all teams.

However, as reported (5a), a bone of contention among at least two college teams was the time taken with travelling to Plymouth for team and Board meetings. It is worth noting that the colleges that reported greatest difficulty in attending meetings also raised concerns over review and sign-off, internal communications and a wide range of other issues. This tends to confirm one team-leaders comment that:

Groups really do need to have time to gel and form working relationships before attempting to continue processes by email, otherwise things just tend to get left by the wayside. Where people have that working relationship first these problems of email continuation seem much less. (Team leader)

In the interests of effective working relationships, it is obviously important that all parties attend meetings and feel positive about their contribution. Several ideas for improved meetings were explored in interviews and are outlined under 'Suggestions'.

The turnover of staff seems to have been the biggest obstacle to developing strong working relationships. However, the team leader quoted above suggested that new staff should not simply be treated as a problem for the project: they also represented an '*opportunity to remake contact, to renew allegiances and awareness*'.

g) Administrative processes

Administrative staff at the college sites were appreciative of the way that procedures had been handled centrally:

The claims procedure has been very straightforward. It's nice that [the Project Administrator] emails us and tells us what to claim, and when to raise an invoice. (College D)

With the exception of comments about the number of emails (dealt with above), the administrative burden was compared favourably with other projects.

From the perspective of the Project Administrator, the main difficulty seemed to have been chasing up outstanding decisions and deliverables.

I get quite frustrated about different colleges that don't make the decisions they should make. Things tend to keep rolling on from one meeting to the next and I'm not senior enough to chase them up. [One site] is a key player here. There are points from October that we're still no further forward with.

She also pointed out that key decisions included identifying team members, which meant that there was a lack of clarity about who to address for specific decisions and tasks. And ultimately '*that could bounce back on us: they could complain that they haven't had their say*'.

h) Awareness raising

Every site admitted that there was a poor awareness of the project outside the core team, but few saw it as a major problem. What mattered at this stage was that the right people should be in place on strategic committees and working teams to get things done. Once new systems and processes were in place there would be a need for much more widespread awareness-raising but, as reported in the section on staff development, it was not seen to be particularly useful to raise awareness of the SHELL project as such ('*why burden people with another acronym?*'). Staff needed to understand the new systems, not how they had come about.

However, project members did foresee problems in securing buy-in to these systems unless staff could see the actual benefits for student learning.

it wasn't very obvious that [learners reflecting on their learning] was what the project was about. That's one reason I didn't get involved early on. It looked like a very technical solution. (University)

Staff aren't going to say 'oh yes, what a good idea' [to systems for recording student data]. (College A)

Several interviewees expressed the view that teaching staff could be reached indirectly via learning and teaching specialists and champions. Suggested targets for

awareness raising included ILT champions, learning support staff and learning technologists.

Recruiting new partner colleges, and securing their active participation, clearly does involve raising awareness of SHELL as a project with specific outcomes and benefits. This was an issue addressed with senior managers and team leaders. They felt that it would be easier to demonstrate benefits once there were concrete outcomes from the implementation process in terms of data input screens and prototype learner profiles. It was also suggested that contact should be made at a number of different levels, not confined to senior and MIS managers. There was a role for the project to develop its own champions in different areas of work – implementation, learner profiles, business process design etc – who could present a realistic but positive view of the project to a new audience.

It is all about the right people in the end. However good the system, it won't sell itself unless people are imaginative about how it will be used. At some stage people need to start saying 'this is really how learning processes will improve'. We need to have enthusiasts and brainstormers to get the ideas across, and who are willing to discuss them with others. (University)

In the process of Some of my colleagues say they will believe in SHELL when it does actually deliver the data. It's pretty leading edge. But when it all works it's going to be excellent. (University)

7. Suggestions for project development

Some of the following suggestions for improvement to project working were made by project members in the course of the interviews conducted for this report. Others were raised by the external evaluator. They are offered for discussion by the project rather than as formal recommendations.

1. Developing shared understanding

These interviews uncovered several factual misunderstandings, including on the part of the evaluator, about key technical and operational issues. The project needs to consider ways of developing a shared understanding of its activities, in ways that are time-efficient, appropriate to participants' roles, and unthreatening.

It is suggested that *each team could develop a brief summary of the 'state of play' in their area of work*. This might take the form of a FAQ or short briefing paper, covering: aims and rationales; key project tasks; issues that have arisen and been resolved (or not); how these tasks fit in with the wider project; how the project fits in with the wider picture of student learning. There might also be definitions and project contacts, and even one-line summaries of key outputs. The language should be user-friendly and designed for non-experts.

The process of developing these documents would help clarify issues for team members themselves, and go some way towards outlining their own 'job spec'. The outcomes would then be useful to other teams and to members of the Board, as well as to new colleges joining the project.¹

It was noticeable that project team members who had been involved in events such as the Northern Ireland meeting had a sense of the 'bigger picture' of data interoperability and personal development profiles, and were correspondingly more positive about the project. Opportunities could be explored to *extend involvement in external events* of this kind. Meetings with the JISC representatives were very well received, and it may be that the JISC representative on the project board can identify areas of JISC activity (workshops, seminars, etc) that would be of interest and benefit to project members at different sites.

3. Involving new sites

One lesson identified in the roadshow evaluations was the need to involve staff from outside the area of short-term impact i.e. MIS and technical teams. Contact from a senior manager obviously sends an important signal about the status of the project, but it is suggested that *separate contacts should be established with key players* by members of the project team with corresponding areas of interest (e.g. learning and teaching; learning technologies/ILT; learner support). With this in mind, there are suggestions below for developing 'champions' in specific areas of work.

Bearing in mind some of the tensions identified in this report, *communication with the Phase Two sites should perhaps emphasise the following points:*

¹ In this suggestion it is the process of arriving at shared understanding, rather than the outcome, which is important. An alternative to briefing papers might be themed issues of the Newsletter. Or for example, the E&D and Standards Team might collaborate on a briefing to cover *Learner Profiles: implications and opportunities* for an audience of learning and teaching staff. The BA&I team might consider *Business Processes in Learner Data...* The JISC might be able to offer help in developing these?)

- emphasise the *developmental* and *participative* nature of the project;
- encourage the recruitment of team members who are able to negotiate solutions and respond flexibly to evolving demands;
- think about developing the skills and expertise needed to participate in the project, even from initial contact;
- discuss local strategic priorities and look for synergies with project aims;
- clarify that the benefits of student access to learning profiles and VLE materials are likely to be in the medium term;
- focus on existing drivers for data integration and interoperability, so these are not perceived as arising solely from the needs of the project;
- focus on the immediate benefits of sharing good practice with people in similar roles, and with colleges facing similar practical concerns.

It is suggested that this could best be carried out by ***organising two workshops or events***. The first would be aimed largely at the core staff involved in implementation of new student record processes. The second would be aimed at learning and teaching staff and learning specialists.

The Project could also explore further ways of ***raising regional awareness by presentation to existing forums*** such as DeMIS (not just Devon but wider SW network of MIS managers); the Devon Principals forum; the Western Colleges Consortium; the LSC forum for MIS managers; the SW ITC consortium. If potential partner colleges hear about the project from a number of different directions, they are more likely to feel that it is worthwhile.

4. Involving the wider stakeholders

It was emphasised by many project participants that teachers and learners need to be involved at an early stage, both in developing the interface to learner data, and in exploring ways of integrating the SHELL system into learner support. Possible early adopters include ILT champions, learning support staff, and staff undertaking FERL practitioner modules. The project might ***coordinate contact with early adopters*** e.g. through a ‘learning and teaching champion’ (see below).

It is understood that the project has already ***explored the possibility of involving schools*** in the next phase. This would allow the project to consider data interoperability issues upstream of the FE colleges, and to look beyond the FE/HE transfer towards the emerging national standards. Both are important in establishing benefits to the FE partners. It is suggested that the project also explore this option via the national Centre on Recording Achievement, who may recommend talking to Local Education Authorities as well as to individual schools. However, this is clearly outside the original remit of the project and may not be appropriate without separate funding.

Some of the collective forums mentioned under ‘involving new colleges’ offer opportunities to disseminate outcomes to other sectors. These might also be pursued via the new scoping study to be carried out by the CRA and the SW RDA.

Many of people whose involvement is needed will only relate to the project when they can get a ‘look and feel’ for the outcomes. Despite the dangers of prototyping too early, it is hard to imagine the project reaching out effectively to its end users while the learner profile remains a series of data fields. A ***prototype interface*** – even a series of screenshots embedded into (e.g.) a powerpoint presentation – would give some

sense of how the project might actually impact on the learner experience, and could easily be developed from the paper mock-up that the Standards team has produced.

6. Developing champions

In order to communicate effectively, and positively, about the project, it might be helpful to *identify some project champions*. These might present at the suggested workshops, or be a point of contact for staff with similar roles at partner colleges.

One such champion should be able to talk about SHELL implementation to staff and managers in MIS/registry/student records. This person would need to have the credibility of having seen the process through (perhaps from the pilot implementation site?), some understanding of the wider agendas, and the ability to communicate issues effectively. This person is envisaged as being someone already working for the project (e.g. at the pilot implementation site?) but who might take on some additional dissemination/development responsibilities (funded?).

As discussed above, most institutions already have various kinds of learning and teaching champion, and these staff are best placed to work with early adopters and specialists in learning support. However, the project might identify its own 'learning and teaching' champion to manage communication with the relevant link people at each site. It is envisaged that this would be one of the team leaders and/or Board members already committed to the project.

Specific concerns

7. Authentication data

In issuing PDP IDs and passwords from the hub, there will inevitably be a trade-off between the desire to offer benefit to all students and the logistical problems of generating and managing authenticated IDs. There may also be costs in terms of developing single sign-on for students. At the moment this issue has the potential to develop into a stand-off between the central data hub and at least one of the local data providers.

It is suggested that the Project Board should *clarify, as soon as possible, the current expectations for data submission* to the SHELL hub in terms of timescale and degree of coverage, to allow for effective planning at local sites. However, it is also suggested that the Board remind its members of the *developmental nature of the project*, which means that new problems will be encountered. The focus from all participants should be on sharing ideas in order to develop collective solutions.

The technical team should be encouraged to seek advice from the JISC. It is also essential that *effective and timely channels of communication are established within the technical team*, and between technical representatives and the rest of their site team, who will naturally be concerned about the impact of data requirements on their own areas of responsibility.

8. Technical expertise

SHELL can do little to relieve the difficulties of recruiting and retaining staff with appropriate expertise. However, it would be prudent for the JISC to recognise this risk when funding projects, particularly in regions with a limited pool of specialist technical labour. The Phosphorix solution, if successful, may be offered to the JISC as

a *model for other projects* to follow. A *directory of expertise* would seem to be a useful outcome for the funders to consider.

Although technical staff involved in the project have been described as ‘superb’, release of their time is an ongoing issue. It is suggested that senior managers who have signed up to SHELL on behalf of their institutions should be asked to *ensure that operational managers and operational staff are aware that the project is considered a priority* for development.

Project processes

9. Review and sign-off

As commented in the report, there is often a circularity about the ‘verifiable indicators’ for review. It would be useful if *review criteria included features of the deliverable* itself, as well as of the signing-off process, so that reviewers at the sites were clearer exactly *how* and *against what* they were assessing the product. In many cases this is just a question of asking how the deliverable fits into the overall project plan, i.e. *what future deliverables and actions depend on this deliverable doing what it says it does?*

A mapping of this kind would help everyone see where their work fitted into the overall project plan, but would specifically help evaluation representatives to ask the right questions about the implications of each deliverable. For example: was this dissemination event effective in getting early adopters signed up for when the system was ready to trial? Does this business process produce the outcomes *here* that will be needed as inputs *there?* etc

The review and sign-off process encourages staff to raise issues that cannot be actioned immediately in that deliverable, e.g. impact on local workloads. It would be useful if these *issues were collated and fed back* into the project process where appropriate (e.g. at Board level). Otherwise there is a danger that sites will feel they have raised concerns that have not been acted on.

The Project has deliberately been set up in a collegial fashion, based on peer review and consensual decision-making. However, the focus is currently on the documentation rather than on the process of discussion and review. It is suggested that the Evaluation team *revisit the purpose of peer evaluation*, ensuring that participants at their own institutions see it as an exercise in sharing issues rather than an administrative chore. *Discussion facilities in Dochive* could be better used for this.

It is also suggested that the person identified as responsible for strategic and operational sign-off at each site is given a *regularly-updated schedule of forthcoming decisions* and asked to confirm their availability for these tasks. The short briefings suggested above could also be used, particularly in the case of strategic sign-off, to make sure that everyone has a shared understanding of the terms used and the issues involved.

10. Use of communication technologies

Considering the technical content of the project and the geographical spread of sites, there seems to be relatively little use of communication technologies. *Everyone involved in the project should be comfortable with the use of Dochive* – including the comment as well as the posting facility. Some refinements to the Dochive

interface might improve ease of navigation, but essentially project members need to start using it. A short induction could perhaps be included as part of a Board meeting, and team leaders could ensure that their contacts at each of the sites have had an opportunity to try the system.

Ideally also, *each site team should be comfortable with tele- and video-conferencing*, though the norm should continue to be face-to-face meetings.

Once Dochive is being used effectively, whole-project emails can be kept to a minimum and information can be disseminated on a pull rather than a push model. However, deadline information will always need to be communicated directly. It is suggested that the whole project might adopt *a protocol for email headers* such as:

SHELL (team): for (information/approval/action); by (deadline)

11. Meetings

One solution to the problems identified in the report would be to *rotate the venue for meetings* among the core partners. This would mean each project member staying 'at home' for one meeting in five, and would help to foster a sense of equality among project sites. But travel times would occasionally be much longer.

An alternative or complementary approach would be to *rationalise the separate team meetings* – and Board meetings where relevant – so that they all took place on the same day. Although these days would obviously need to be planned a long way in advance, they would have the advantage of enabling synergy among different areas of work. Members of each site team would travel together, giving them a chance to catch up on progress across different areas of responsibility, and there would be networking opportunities among all team members during lunch or coffee. The scale of these events might also help to foster a sense of the project as a community.

The *use of tele- or video-conferencing* for certain meetings, or to allow individuals to attend meetings at a distance, would certainly be worth investigating. All the Phase One sites appear to have facilities for this.

12. Other communication issues

The suggestion that key documents be summarised for internal use is probably not useful. There is a danger of important details being missed. The nature of the project requires sharing of information on the basis of equal access and responsibility.

However, the idea of the *newsletter* seems to have many advantages. As well as offering the summary of activities that was requested, it would help to build a sense of the project as a community. Project documents tend necessarily to be formal and somewhat repetitive, but if these are the only means of communication then it is difficult to get any sense of the people involved or the agendas that really matter to them. Given the relative infrequency of meetings, a more human touch to communications can only be a good thing. External meetings and events in which project members are involved deserve to be more widely known within the project, partly because they indicate the status of the project nationally, and partly because they place the project in the context of wider concerns.

Teamwork

The working teams seem to have been very productive, though fully-attended meetings and better use of online communication could improve their effectiveness further. The exception is the technical team, where particular difficulties have been outlined. The main lines of communication are now between Phosphorix, the technical teams at each implementation site, and their respective commercial suppliers. While this is probably essential if implementation is to take place during late summer and autumn of 2003, it is suggested that the *technical representatives should meet as early as possible*. It will be a priority for the whole project that this team should establish effective working relationships so that important lessons from development and implementation are not lost.

Roles and responsibilities of Board members

It is suggested that *the role of Board members could be clarified*, in particular their responsibilities:

- to have a strategic overview of all aspects of the Project;
- to represent their institutional perspective to the Project;
- to secure support for the Project among operational managers and staff at their institution;
- to act as champions for the Project, both within and beyond their institution.

Next steps

It is suggested that *these notes be circulated for discussion and that actions should be agreed*. It is hoped that the implementation of these suggestions, particularly in relation to project processes, will lead to full and effective participation by everyone involved. In future, all project members should be asked to identify problems and to express these as positive suggestions for change. Difficulties participating in project activities in particular should be addressed immediately, either by the relevant working groups or, if necessary, brought to the attention of the appropriate member of the Board. It is essential for the continued success of SHELL that a positive dialogue is established whereby problems are shared and collective solutions are sought.