Introduction
In this paper we consider the challenges of introducing curriculum change at an institutional level through two institutional wide projects which demand great engagement from participants. The fact that these are institutional initiatives has meant that the scale of the projects is large and diverse and needs a change of both practice and culture.

The projects approach curriculum design from slightly different sides – one from the design of the curriculum from a principles and values perspective (PREDICT), the other from the impact of educational technologies on design and delivery (SLE). Through both these projects there have been some challenges and opportunities which were both expected and unexpected and provided some useful lessons. Although both projects are still operational, many of the lessons learnt would assist others in the design and implementation of change management initiatives relating to educational development.

The projects
City University London launched two institutional projects from the new learning and teaching strategy and University strategy in 2008. These were a review of undergraduate education and the evaluation of our existing virtual learning environment and other institution-wide education technologies. To provide a greater evidence base for the first project, the University also applied and successfully received funding which is supporting the PREDICT project under the JISC Institutional Approaches to Curriculum Design strand. Both the evaluation of the virtual learning environment and the PREDICT project are led by senior staff from the Learning Development Centre (LDC). The LDC is seen as the hub within the University for the development, enhancement and research of learning and teaching activities across the University and the associated staff support for these activities. It therefore appropriate that the two projects are led from this centre ensuring there is close alignment to the university vision and goals for learning and teaching and staff leading these can champion the proposed changes (Gray & Radloff 2006)

PREDICT (Promoting Realistic Engaging Discussions In Curriculum Teams) aims to develop a new curriculum design process that is efficient, flexible, focuses on enhancing educational development and the student experience and, is supported with responsive technology to accommodate our curriculum models. It is one of twelve projects funded under this particular JISC strand and runs for four years from October 2008.

Initially the PREDICT project was based on a notion of investigating how the University could introduce a core curriculum and what impact this would have on the programme design, approval and delivery process. This was to support the key aspects of the review of undergraduate education. However, as will be outlined below, due to various changes within the institution and upon further refinement of the scope, it was decided to refocus the project more on the actual engagement of staff in the design and delivery process of undergraduate programmes, rather than considering the approval process or the introduction of a core curriculum. The project team have therefore been discussing with programme teams how new programmes are created, how they are evaluated and


The JISC e-Learning Programme curriculum design strand focuses on projects that will review course design and validation processes, and the ways these are supported and informed by technology, in order to transform learning opportunities to address an identified issue or challenge of strategic importance to the institution involved.
redesigned, and most importantly, what values and models determine this design process. A series of case studies are being created to provide exemplars of this for other staff to draw upon.

Whilst the Review of Undergraduate Education has resulted in a significant amount of policy development around the educational experience, it is broader than the PREDICT project. That said, the Review of Undergraduate Education, has provided a helpful driver for enabling dialogue with staff about curriculum change.

PREDICT has already identified that there are several approaches used within the institution for curriculum design and is looking further at whether there are some approaches that are key to all. There has also been a desire to explore how staff would like this process to be undertaken and what support could be provided. What PREDICT has succeeded in doing is creating a greater focus on curriculum design as an issue within the institution and encouraging dialogue about what we do and how we could do it differently. It has also prompted debates and engaged staff in thinking about how we manage educational change.

The other major initiative in terms of educational experience at City which was launched in 2008 was the Strategic Learning Environment (SLE). After a successful implementation of an institutional-wide Virtual Learning Environment (VLE) in 2003, the University had a set of strategic software and hardware for educational delivery. It was agreed that a comprehensive review needed to take place given the much bigger portfolio of systems supporting learning and teaching coupled with the huge changes in software over the past six years. The advent of Web 2.0 technologies, particularly, social software, raises important questions for the development and support of University-owned services as well as learning and teaching. So the SLE initiative started with a yearlong evaluation of current technologies, with a particular focus on the VLE – CitySpace - and with longer objectives of articulating a product roadmap for the introduction of new educational technologies as well as a clearer vision for our use of technology enhanced learning. This first phase was shaped by the question “do we need a VLE?” and after six months evaluation the resounding answer was, yes, but at the core of a suite of educational technologies that we could plug in depending on our particular needs and requirements. Our vision for the SLE is to create an integrated online environment to support the University’s research and educational activities using the portal and other best of breed applications. This environment, as shown in figure 1 below, enables management of:

- The academic model
- Learning and research assets
- Assessment and feedback
- Personal and professional development activity
- Collaboration and communication
The SLE enables a range of educational methods to be available to support the learning experiences of students and staff. These methods could include enabling students to find course work online, quizzes to monitor progress, or a forum where students can chat to other students and lecturers about aspects of their programme. There are also facilities for students to develop an online portfolio of work and achievements as well as for staff to create interactive course materials using audio and video. All these methods enhance the learning experience of students by complementing the face-to-face interactions they have with staff.

After the initial evaluation period, the University made the decision to implement an Opensource VLE (Moodle) and started initial implementations in September 2009 with a view to replacing the current VLE entirely by September 2011. Obviously key to this project is the engagement of staff across the University in understanding the change and supporting staff in using the new technologies. As part of the project approval, staffing resource was placed in each of the University's seven Schools to assist with the implementation of the project from a change management perspective. A key principle underlying the SLE is that the initiative is focusing on redesign for delivery. Rather than merely replacing one VLE with another and migrating resources across, the SLE enables us to support staff in reconsidering how they are teaching and what resources they could use to this more effectively. This then dovetails with the PREDICT project and considering curriculum change but from different angles – PREDICT by focussing on design, SLE by focusing on delivery. Core to both projects is that in order to achieve any beneficial change and enhancements change management and staff engagement is vital.
Challenges and opportunities
At the outset of each project, the fact that these initiatives were large-scale institutional change projects was appreciated and therefore they demanded a particular style of project delivery and leadership to be successful. The leaders needed to understand the change process and the associated inherent complexity (Fullan 2004). Although Kotter’s (1996) eight step model to change provides a useful structure to inform the process and direction, it has limitations as it implies a linear process. Both projects have discovered that change is not linear and cannot be mapped into a set of clearly defined steps. Fullan (2004) agrees likening the change process to complexity theory and arguing that “leaders must resist the temptation to try to control the uncontrollable [change] and use concepts from complexity theory to design and guide learning and change (p55)”. Fullan’s (2004) equation of change with learning is important for the context in which these projects are operating. In order for the institution to benefit from the activities under the project umbrellas, the successes as well as the failures of each project need to be understood so that in the future we can do things differently. This notion of learning through change to create a better organisation is one of the factors that can drive the process of creating a learning organisation, as defined by Senge (2006).

In the two years that these projects have been operational we have encountered several key issues that we think are common to institutional change initiatives of this nature. These issues will be explored in more detail below and they are:

1. Changes to institutional strategy and priorities
2. Stakeholder engagement
3. Unplanned events

1. Changes to institutional strategy and priorities
A clear driver for the PREDICT project was the Review of Undergraduate Education as determined above and the initial bid for PREDICT was predicated on early thinking in relation to what this review might uncover. However, as the review started it changed in shape and became more aligned with the University strategy of driving up the National Student Survey (NSS) scores which was a more urgent priority, than a core undergraduate curriculum. As this became apparent, PREDICT needed to be remodelled to take a broader and more pragmatic approach to uncovering the values and principles that drive curriculum development within the institution. The situation was complicated further when the Vice Chancellor, who had been in the process of implementing a clear University strategy, left suddenly and this meant that other senior staff and project sponsors had their roles changed. Obviously such changes at senior management level meant that all initiatives in the institution that had such high level sponsorship were subject to delays and changes of direction. This led to the PREDICT team rethinking the project more radically and taking a more incremental approach to change. Rather than viewing PREDICT as an initiative in itself, the team decided to use PREDICT as a way of raising the profile of curriculum design and a vehicle for instigating such discussions, but for pragmatic reasons would not talk about the project as a separate entity. This was particularly important at a time when Schools found that they were overburdened with a number of different changes and could not cope with further projects.

Constant communication with senior stakeholders on the development of the project as well as ascertaining institutional priorities and revisiting these on a regular basis was vital to ensure that PREDICT remained true to its overall aim, but that the methods were more appropriate to the changing circumstances.

The SLE project was also linked to the University’s Learning and Teaching Strategy, but the challenge for the SLE was to ensure that was not seen as a technology project, but as an enabler for other
initiatives. Again fear of initiative overload from the Schools meant that the SLE implementation needed to be pitched in such a way that it was not seen as a further drain on staff time. This is where the principles around “redesign for delivery” came into play. If staff had to rethink their curriculum for the Undergraduate Review and were being given the support to do it by PREDICT then the SLE was a way of enabling this change and making it happen. Senior management were supportive of this approach but many staff wanted to just learn how to use Moodle, due to the urgency of moving modules over in time for a September 2010 delivery rather than seeing this as an opportunity to change.

For SLE, the larger challenge around institutional priorities came into play with the sheer amount of change that was happening in relation to systems implementation in the institution as a whole. In 2009-10 it was planned that not only would the institution undertake implementation of Moodle as part of the SLE but it would also introduce a new website and a portal system. The SLE initiative was tied closely to the portal activity as the portal system enabled realisation of some of the potential for flexibility and plugins required to support diverse learning and teaching needs. There was also a tie-in with the website in the form of having a more defined process of when a student moves from an enquirer to applicant status and finally acceptance on a course and registered student. The University wished to offer increased resources and support for students to ensure greater conversion rates between these stages and the combination of some of the features of the new website with integration with a more flexible learning environment was attractive. Delays to some of these other projects diluted the focus on the SLE and caused some concern over prioritisation in terms of delivery. It was also confusing to staff who were not clear about what SLE covered and how it engaged with other projects.

2. Stakeholder engagement
Both PREDICT and SLE require meaningful stakeholder engagement in order to be successful. We cannot identify the principles underpinning curriculum design in the University if we are not engaging and involving them in the design process. Equally, the SLE project will not succeed if it does not involve staff in redesigning their modules for delivery on the new platform as well as defining how they wish to use technology to support teaching in the future. Bregman (2007) argues that dialogue is essential if ownership is to occur. In the case of the SLE initiative the change was relatively easy to define and the notion of a “burning platform” one that could easily capture the imagination and commitment of staff. Therefore, in Kotter’s (1996) terms “creating a sense of urgency” was undeniable. The centrality of the VLE to the learning experience of students and delivery methods of staff was irrefutable and the evaluation phase had produced the evidence required to support the notion that a VLE was not only desirable but vital for the institution. Furthermore, the fact that the institution already had a VLE meant that engaging staff with the SLE vision was more tangible as they already had a frame of reference. Users were engaged with the SLE evaluation phase in a number of ways via workshops, involvement in a core experts group, student and staff surveys and Board of Studies responses. Once the initial implementations started a new governance structure was determined that had buy-in at every level from senior management to academics, educational technologists, developers and technical specialists. Over 60 individuals across the institution could allocate a significant proportion of their time to the SLE initiative. The fact that so many people have been involved has meant coming to a decision on some issues has been extremely time consuming. Furthermore, communication within the team has been a challenge at times and there have been risks of miscommunication. We have mitigated this in various ways but keeping dialogue open and building relationships has been crucial. Certain issues with personnel in the early implementation phase jeopardised relationships and a lot of work had to be done subsequently to rebuild stakeholder engagement. Relationships have to be built at every level and across different types of staff as well as continued constantly.
Engagement for PREDICT was more complex. The initial project plan defined a number of pilot areas that Schools could contribute and the relevant senior staff signed up to the bid accordingly. However, when it came to carrying out the pilots, the reality was a different matter. As outlined above the changes at senior level and significant workloads placed on the Schools meant that there was a reluctance to identify pilots. The project team needed to think more creatively about how to engage Schools and gain evidence to build up a picture of how curriculum development was occurring in the institution. So we decided to piggy back on activities that were already happening. This meant working with those programme leaders who were in the process of designing new programmes, identified via the programme’s approval process and interviewing them on their experience. We also decided to use students on our own programmes on academic practice on the curriculum module to create an “ideal” creation process. By carrying out this activity with two cohorts of students we have been able to obtain data from over eighty staff. This has actually reached many more staff than our original pilots would have done. These changes have also led to us engaging staff in the technical design aspects of the project in a different way and initiating more enhancement activity rather than new activity. Ultimately this means that the results should be more sustainable, one of the key requirements of the JISC funding.

There were also issues about defining what we meant by “curriculum design”. PREDICT enabled us to work with our academic quality team in determining when the approvals process stops and starts and how curriculum design actually encompasses much more than that. This, in turn, has contributed to shaping our thinking on the SLE project as well as the scope of PREDICT. PREDICT is now much more focused on design and application rather than the approvals process. We had to ensure that we worked to develop a shared understanding of what the project scope was and revisit roles and responsibilities frequently.

3. Unplanned events

When undertaking projects of this scale and complexity over this period of time it is inevitable that there will be many unplanned events (Knight & Trowler 2001). As we have described above, changes in senior management, changes in stakeholder engagement and changes to priorities have all impacted on the projects. PREDICT has probably had to be more agile in dealing with the unplanned events, not just because of the strategic changes but also because of the rigour of reporting to external bodies in relation to the project delivery. This has demanded that the project spend significant time really focusing on what was important and why. This has led to an iterative process of clarifying outcomes but also embracing emergent outcomes (Knight & Trowler 2001 & White 2000). Ultimately this has been to the benefit of the project and JISC themselves have enabled this to happen. Although unplanned events have led to challenges, the resolution of these has led to a more responsive and effective project that is making a more lasting and deeper impact within the institution. For example, activities that have been adopted by other areas outside of the project have meant that the change has had greater uptake across the institution and also led to some interesting discussions within the project team on ownership and control (Bregman 2007). There have also been some unexpected synergies and benefits, such as linking up with University initiatives on diversity and curriculum change. PREDICT has enabled us to change our approach to how we explore and discuss the curriculum and how these discussions are then embedded into all the work that we do. It has also made us rethink what the value of a “project” really is and how we can articulate project aims and activities that will have a tangible impact. Measuring impact and value of such complex change projects is not an easy task and again PREDICT is enabling us to explore that.

For SLE the unplanned events have occurred in relation to staff changes and issues in other projects. This has highlighted the difficulty and challenges associated with connecting large scale University
wide initiatives as well as how we can focus as an institution on prioritising activity. It has also reinforced the lesson identified above on building strong relationships and engaging your key stakeholders so that when the unexpected happens the project is robust enough to withstand the change. A strong governance structure has assisted the SLE project through such changes. Chaired by the Deputy Vice Chancellor the SLE Strategy and Governance Board takes on the role of the Project Board but has a broader view and engagement of academic and support staff in senior roles across the organisation. It monitors the project at a high level through a series of success factors and it does not get into operational detail but takes the long view. Two groups brief this Board – the SLE Executive which covers the LDC and Information Services functions of the project and has a remit for allocating resources as well as project managing the multitude of activities that fall under the SLE banner, and the SLE Group which is the user engagement part of the structure, they pass decisions on requirements to the Executive for action and prioritisation. Technical and Moodle implementation groups report in where necessary. Although not perfect this governance structure has kept the project on track through some difficult decisions and ensured there are communication channels and methods of escalation for issues. It has also significant engagement with other parts of the organisation to ensure that the project is briefed on potential issues in other areas and membership changes depending on the issues being addressed.

**Key lessons**

As a result of the issues discussed above we have been able to identify some lessons that would assist us with both the continuation of these projects but also with future institutional projects of this nature and may assist others.

In terms of senior management it is essential that from the onset they are committed to the project, are clear about the focus and they are kept briefed at all times about progress, issues and changes. This facilitates them being able to champion the project with others.

Stakeholder engagement does need careful planning initially to gain “buy in” but also needs to be regularly revisited in terms of commitment, other priorities for individuals and including individuals who may not have been identified at first but through engagement in other activities have become interested. Other activities where stakeholder engagement already exists should be explored for links to projects to aid dissemination and additional engagement.

Project planning and management needs to be a more iterative process so flexibility of activities can meet the aim of the project and take account of the changing priorities of the institution. The project should have clear alignment with other initiatives but not be tied to these. In particular for Centres such as ours the focus should be on the existing areas of work and engagement with stakeholders rather than the project. We have learnt that if change is to be successful there is a need to look for opportunities especially when unexpected events occur that might at first appear negative (Roche 2003). Additionally the governance for any project should be robust but responsive and the roles and responsibilities of those involved should be broad enough to take account of change.

Lastly communication is the key to success. There should be a strategy which ensures there are clear and frequent messages about aspects of the project but that this should where possible be through a culture of dialogue rather than transmitting information.

**Conclusion**

The experiences of both projects over the two years to date have been invaluable in a range of ways but most importantly in gaining “real life” insight into cultural change management. The unplanned events provided some excellent opportunities for both projects and were not seen as problems. The
lessons learnt by the authors to date will enhance the remaining project lifespan and provide an opportunity to explore new approaches to evaluating the impact of these two significant initiatives.

References


