

Name of Capital Programme: e-Learning					
Bid for Call: (Please tick ONE BOX ONLY, as appropriate)					
Supporting lifelong learning					
<input checked="" type="checkbox"/>	Call I – HE in FE				
Technical developments to support learning and teaching					
	Call II – Assessment <input type="checkbox"/> a) Item Authoring Tool <input type="checkbox"/> b) Item Bank Software <input type="checkbox"/> c) Assessment Delivery Tool		Call IV – Admissions demonstrators <input type="checkbox"/> a) structured personal profiles, course entry profiles and pre-assessment; <input type="checkbox"/> b) improving applicant feedback; <input type="checkbox"/> c) accreditation of prior experiential learning; <input type="checkbox"/> d) e-portfolio based admissions.	<input type="checkbox"/>	Call VI – Course validation
<input type="checkbox"/>	Call III – Technology supported learning environments	<input type="checkbox"/>	Call V – Course description and discovery	<input type="checkbox"/>	Call VII – Domain maps
Name of Lead Institution: Kingston College					
Name of Proposed Project: KASTANET: Kingston Access to Science Teaching across New and Emerging Technologies					
Name(s) of Project Partner(s): Kingston College and Kingston University					
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Length of Project: 2 years					
Project Start Date: March 2007			Project End Date: March 2009		
Total Funding Requested from JISC: £100,000					
Funding Broken Down over Financial Years (April – March):					
Apr06 – Mar07		Apr07 – Mar08		Apr08 – Mar09	
£8,000		£55,000		£37,000	
Total Institutional Contributions: £36,500					

Percentage Contributions over the Life of the Project:	JISC: 70%	PARTNERS: 30%
Outline Project Description		
<p>The KASTANET project seeks to exploit the opportunities provided by new and emerging technology to enhance the learning experience of students starting in science-based higher education. Based on a partnership between Kingston College and Kingston University, the project will focus on the introduction of mobile services and social software to support learners on a large access programme that provides a progression route between the two institutions: the Science Degree Foundation course.</p> <p>The project aims to develop and evaluate models of good practice in relation to three key areas within science education:</p> <ol style="list-style-type: none"> 1. Learning support: coordination and management of the student journey onto, through and beyond the SDF programme. This will involve the use of SMS services, mobile push communication and RSS feeds to enhance the induction process, provide course information and assist progression from further to higher education. 2. Learning: delivery of learning content, interaction of students with this material and construction of knowledge through collaboration and communication. This will involve using podcasts, mobile blogs and wikis as a means for providing learning content, encouraging participation and promoting peer-based collaboration. 3. Assessment: taken in its broadest form to include testing of knowledge and skills, monitoring of student learning and the eliciting of feedback from students on their experiences on the programme. <p>In summary we intend to provide an accessible, flexible effective and highly-personalised approach that will be of benefit to students making the progression to BSc science programmes; build capacity within the partnership to implement mobile based solutions across the curriculum and to act as a catalyst for informed change across the sector.</p>		
I have looked at the example FOI form at Appendix A and included an FOI form in the attached bid (Tick Box)	YES ✓	NO
I have read the Circular and associated Terms and Conditions of Grant at Appendix B (Tick Box)	YES ✓	NO

KASTANET: Kingston Access to Science Teaching across New and Emerging Technologies

Response to JISC e-Capital Programme funding call (Circular 04/06): HE in FE E-learning strand

Lead institution: **Kingston College**

1 Introduction

1.1 Overview

1.1.1 The KASTANET project seeks to exploit the opportunities provided by new and emerging technology to enhance the learning experience of students starting in science-based higher education. Based on a partnership between Kingston College and Kingston University, the project will focus on the introduction of mobile services and social software to support learners on a large access programme that provides a progression route between the two institutions: the Science Degree Foundation course. We aim to provide an effective and personalised approach to learning, learning support and assessment that will be of benefit to students making the progression to BSc science programmes; build capacity within the partnership to implement mobile based solutions across the curriculum and to act as a catalyst for informed change across the sector.

1.2 Rationale

- 1.2.1 The Science Degree Foundation (SDF) programme is a one year access programme delivered at Kingston College for students recruited by, and destined to progress onto science degree programmes at, Kingston University. It is one of the largest access programmes of its kind in the country with a current intake of 260 students who are due to embark on a wide range of BSc science courses across Life Sciences, Earth Sciences and Geography, and Pharmaceutical and Chemical Sciences and who are taught by a teaching team of some 13 staff members. The most popular pathways are Biology, Biomedical science, Forensic science, Maths, Computing, Chemistry, Pharmacy and Media Technology. The modular programme accommodates students from a very wide range of educational backgrounds, many returning to study after several years.
- 1.2.2 E-learning is already extensively used to support students in their studies on the SDF programme through the provision of learning content, communication tools and assessment facilities principally focused on Kingston College's Blackboard virtual learning environment. Web-based tools for tracking and monitoring student progress are also provided through the Kingston College Online Database (KCOD), a comprehensive curriculum management and learning support resource developed in-house by Kingston College staff. We are seeking to build on this activity by integrating other social networking web-based tools supporting e-learning and online course management allied with the flexibility of handheld mobile devices. We believe that new technologies – most notably a combination of social software and mobile communication devices – can make a substantial contribution to our strategic aim of personalising the learning experience for all our students.
- 1.2.3 The introduction of new technologies onto the SDF programme – by extending pilot activities already underway in both partner institutions – is designed to address a number of challenges presented by management of the course and create new scenarios for learning:

Issues	Current arrangements	Future scenario
Providing course information to students	The programme has expanded dramatically over recent years. The popularity of the course has created challenges for course tutors in keeping in regular contact with students and issuing relevant and timely information about the course programme (such as timetable changes and the assessment schedule). Announcements in lectures, the college's VLE and on notice boards are not always sufficient.	Phil James, a student on the SDF course receives an RSS newsfeed and SMS on his mobile phone to advise him of change to the room for the lecture this afternoon. He sends and then receives an SMS to check the assessment schedule for the rest of the month. Phil also regularly reviews the RSS news feeds from the SDF mobile gateway he has subscribed to for course bulletins.

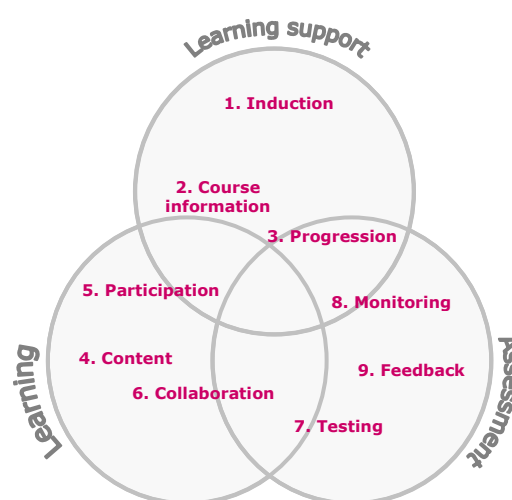
Issues	Current arrangements	Future scenario
Attendance monitoring	A further consequence of the group size, its complex modular structure and large number of tutors is that it is difficult to manage attendance patterns and provide appropriate interventions when the attendance pattern of an individual student presents a cause for concern.	Jade Robinson is struggling to balance course demands with her other commitments and has missed several lectures recently. She receives an SMS message, triggered by her attendance profile in the KCOD web application (used for electronic registration) and gets in touch with her tutor to explain her problems. She feels 'cared for'.
Journey times	The SDF programme recruits students from across the south-east of England. Journey times for many learners are in excess of 90 minutes and this is time that is not always profitably used to support their studies.	Abrah Ahmed uses this morning's bus journey from Hounslow to listen to a pre-lecture synopsis podcast downloaded from the SDF mobile gateway. This evening he will listen again to the organic chemistry podcast as he prepares for the exam tomorrow. He values the continuity of learning experience outside of the college.
Progression	The basis for study on the SDF course at Kingston College is preparation for BSc programmes at Kingston University. Students are recruited onto the SDF course by Kingston University and aspire to study there on its completion. Providing a suitable preparation for FE to HE transition and highlighting the strength of the relationship between the two institutions presents a challenge in terms of management of the learning experience during the one year access programme.	Felix Oomagh has received an SMS message from his mentor (a former student on the BSc Pharmacy programme) inviting him to an induction event at the university. Last week he received a text message from a current BSc student, also a mentor, with links to the progression 'survival guide' and welcome podcast on the SDF mobile gateway. He feels these are helping him settle on the course and will be valuable in making the transition from college to university. He is about to listen to a welcome podcast prepared by Dr Ian Piper, the Foundation Year coordinator at the University.
Active and collaborative learning	A key aim of the Learning and Teaching policies of both Kingston College and Kingston University is the strengthened role of active student participation in the learning process. Both institutions are attempting to enhance the sense of ownership of learning, provide opportunities for meaningful group-based activities and explore collaborative assessment methods.	Karenbir Adewallah has thrived during the second semester of the SDF through peer-based activities. He has enjoyed the collaborative earth science group assessment activity which has made use of social software, notably wikis and blogs, twinned with multimedia messaging to provide information about geo-hazards.
Feedback from students:	Kingston College currently issues an annual student survey and end-of-module electronic surveys, hosted in the Blackboard VLE. The are used to profile the views of students on the SDF course. However, these feedback mechanisms are rather unwieldy and do not provide the finely-tuned information that tutors require on student understanding.	Sarah Morgan is in the college canteen. She has just responded to the post lecture snapshot request. She regularly makes use of 'little and often' SMS-based surveys to provide immediate feedback on her experiences of learning. Last week these views were aggregated and discussed in the student forum meeting.

1.3 Objectives

1.3.1 The KASTANET project aims to develop and evaluate models of good practice in the implementation of new and emerging technologies for personalised e-learning in relation to three key areas within science education:

- **Learning support:** coordination and management of the student journey onto, through and beyond the SDF programme.
- **Learning:** interaction of students with learning content and construction of knowledge through collaboration and communication.
- **Assessment:** includes testing of knowledge and skills, monitoring of student learning and the eliciting of feedback from students on their experiences on the programme.

1.3.2 As shown in the diagram to the right, the three closely



related areas of activity provide a framework for identifying the key applications to which mobile technology will be used in the project.

1.4 Outcomes

1.4.1 The outcomes that we plan to achieve for each of the application areas are outlined below.

(i) Induction: Effective support for student embarking on the SDF programme. Reduced early drop-out rate.

(ii) Course information: Students rapidly aware of key information and announcements. Greater sense of belonging on the programme.

(iii) Progression: Improved understanding of demands and opportunities of degree study. Improved liaison between institutions. Increased progression rates.

(iv) Participation: More active learning. Greater autonomy in learning. Better preparation for HE.

(v) Content: Increased understanding of knowledge and improved practical performance.

(vi) Collaboration: Promotion of team-working and problem-solving skills.

(vii) Testing: Rapid feedback on understanding. Improved information to tutors on student progress.

(viii) Monitoring: Students gain systematic and accessible information on their progress and performance. Improved attendance.

(ix) Feedback: Tutors gain clear and immediate impression of the impact of teaching on learning. More responsive course delivery methods.

1.4.2 Overall the project will provide an analysis of the costs and benefits of introducing mobile technology and social networking into science-based access programmes. This will take the form of a detailed evaluation, identification of staff development needs, technological guidelines and an FAQ bank to support institutions planning similar initiatives. To assist in implementation we will also develop a toolkit of routines, mobile learning objects, configuration settings and code blocks for establishing an integrated mobile-learning and social networking framework.

1.5 Impact

1.5.1 The nine applications described above have been identified in order to address the specific needs and cognitive abilities of the diverse group of learners on the SDF programme, as described in section 1.2. We believe that the mobility, connectivity and collaboration fostered by mobile technologies will make a significant contribution to addressing these issues, provide a more personalised and effective learning experience for the students concerned; act as a catalyst for ongoing development of active and pervasive e-learning opportunities within both partner institutions and provide valuable guidelines and resources for the wider FE and HE communities.

1.5.2 By focusing on a large access programme catering for students from highly diverse educational, social and cultural backgrounds and through the integration of mobile technology into mainstream practice the KASTANET project addresses the UK government's agenda for lifelong learning, widening participation and the personalisation of learning experiences as expressed in the current e-learning strategy *Harnessing Technology: Transforming Learning and Children's Services* (March 2005).

1.5.3 More specifically the initiative complements and builds on other projects and research reports that have focused on mobile technologies, social networking and pervasive learning. These include the MELaS project (Mobiles Enhancing Learning and Support) at the University of Wolverhampton; the IMPALA project (Informal Mobile Podcasting and Learning Adaptation) lead by Leicester University with Kingston University as a key partner; the RAMBLE project (Remote Authoring of Mobile Blogs for Learning Environments) at Oxford University; the ENGAGE project (Enabling Personalised Learning across VLE Platforms using Mobile devices) lead by Lancaster University and the Multimedia Learning with Mobile Phones project at City College Southampton.

1.5.4 We believe that the KASTANET project is *distinctive* for the following reasons:

- **Science focus:** social networking and the use of mobile technologies provide an opportunity to address a number of issues that are of particular relevance to higher-level science education such as the need for bite-sized learning content to support complex practical techniques, the requirement for regular interaction and formative assessment around unfamiliar terms and concepts and the benefits of introducing reflective and collaborative e-learning activities, which are not as commonplace in science education as in other disciplines.
- **Social networking:** the integration of mobile technologies with wikis, blogs, syndicated content (RSS feeds to mobile feed aggregators) and podcasts will provide opportunities for collaboration, communication and engagement, which will be especially valuable on an access programme where the focus is on progression from a further to higher education environment.

We are attempting to foster an environment where students learn effectively as part of a community, learn from multiple sources and create a continuity of experience between formal and informal learning contexts.

- **Scale:** The Science Degree Foundation programme has rapidly grown since its inception with currently 260 enrolled students. This figure represents double those enrolled on the course just 5 years ago (132 student enrolled, 2001-2). There is every indication that this growth will continue. During this period of expansion the number of specified routes within the programme has also increased, reflecting the greater diversity of courses delivered at Kingston University and the introduction of an International SDF programme during 2007 will present further challenges. We believe that mobile technology will help issues such as consolidation of learning and assessment, student monitoring and feedback, which present particular challenges on large courses.

1.6 Project partners

- 1.6.1 The project is founded on a strong relationship between Kingston College and Kingston University, both of whom have strong track records in e-learning innovation and collaborative activities.
- 1.6.2 **Kingston College** is a medium to large general further education college which offers a wide range of academic, vocational, adult and professional programmes and with around 1500 HE students. It has recently undergone a restructuring programme, which saw the establishment of an Information and Learning Technology (ILT) Support and Development Division, which provides a central facility for IT support, information management, web development and e-learning innovation. The college's ILT Strategy includes a stated commitment to exploiting new technology in providing more flexible, personalised and differentiated experiences for its students. It also outlines plans to build on pioneering work carried out in the college in the fields of new and emerging technologies. The college has piloted wikis, blogs and podcasts now in several curriculum areas and has developed routines for generating and responding SMS messages from its curriculum management tool, KCOD. The KASTANET project would provide an opportunity to build on and accelerate these developments.
- 1.6.3 The college has a proven record in successfully delivering externally-funded e-learning projects. Recent initiatives have included an LSDA-funded Teacher Training Transformation Project, which focused on the role of e-learning in subject pedagogy; a Widening Participation in E-Learning (WiPE) project funded by the National Institute for Adult and Continuing Education (NIACE), focusing on the role of e-learning with hard-to-reach learners and a LSDA Q-Project on the impact of blended learning in the A-level Curriculum. The college has very strong links with the JISC RSC for London through membership of its steering group, moderation of the Blackboard Regional Usergroup, numerous workshop presentations and attendance at many RSC events. Indeed the college was recorded as the institution with the highest number of engagements with the RSC during 2005-6. The RSC would be a valuable dissemination channel for the KASTANET project.
- 1.6.4 **Kingston University** was one of the earliest pioneers of VLE technology and has gone to great lengths to systematise and embed e-learning within practice across the organisation. The university's Learning and Teaching Strategy and the Faculty of Science's Blended Learning Strategy both underscore the value and potential of new technology in providing interactive, student-focused learning opportunities. The university led a major research project on the role of e-learning in supporting progression from further to higher education (Widening Access and Success). The E-Access strand of this project, which involved Kingston College as a project partner, explored the role of online mentoring in preparing learners for the transition from further to higher education and provides a firm foundation for the KASTANET project. Kingston University is also a partner in the HEA-funded IMPALA project, which is investigating how MP3 files and podcasts can support student learning. The university has also recently completed a JISC-funded LeX project: The Learning Experience of e-Learning published a literature review (Undergraduate experiences of e-Learning) with the HE Academy.

2 Project description

2.1 Plan and timetable

- 2.1.1 The project will start in March 2007 and run for a period of two years. We have identified five broad phases for delivery of the project each of which will be broken into a series of work packages. These are summarised below and outlined in the project plan in Appendix 1.
- **Phase 1 - Project planning and specification:** The project start-up phase will involve establishment of the project team and construction of a detailed project plan, defining technical specifications and server configuration.
 - **Phase 2 - Content development and testing:** Development of pilot content (e.g. induction materials) small-scale user trials with existing SDF students and testing SMS functions.

- **Phase 3 - Implementation:** Phased roll-out of mobile services, participative functions and collaborative activities, focusing on the 2007-8 academic year for the SDF course.
- **Phase 4 - Evaluation:** Review and analysis of student, mentor and tutor experiences at key points throughout the project.
- **Phase 5 - Dissemination:** Outputs of the project will be presented through a combination of presentations, workshops, a full written report, summary report and the project website.

2.2 Server technologies

2.2.1 The KASTANET project focuses on the use of mobile technologies to enhance the experience of students on the Science Degree Foundation programme. A combination of server-based information handling and content hosting facilities will be incorporated alongside deployment of client-based handheld mobile phone devices. These are stable technologies that have already been piloted at both Kingston College and University. The partners are also committed to conforming to open standards in technical implementation of the project (including XHTML, RSS 2.0, W3C-specified CSS and IMS content packaging). Server technologies for the project are shown in the table below.

Mobile network services	At the heart of the communication infrastructure for the project is access to a mobile phone network. This channel is used for transport of voice, text and data services. We plan to use a combination of supplied devices that will use the Vodafone 3G network and student's own handsets that will use a variety of networks. Wireless access on college premises will also be available for WiFi enabled phones (including supplied devices), which will enable access to the SDF mobile gateway and mobile email services at no cost to the students.
KCOD	The Kingston College Online Database (KCOD) web application has been developed at Kingston College to support curriculum management, student progress monitoring, target setting and reporting. KCOD interfaces with the college's Student Information System to extract learner and class profiles based on recruitment data. It is then used for electronic registration, gradebook and performance data capture, storage and processing. Scripts have been written, tested and piloted with small groups of students, which enable KCOD to interface with the SMS service described below and will be used in the project for bulk outbound distribution of SMS messages to students on the SDF programme, automated release of text triggered by performance breakpoints used for student monitoring and HTML to SMS conversion triggered by inbound student texts for provision of timetable information and assessment schedules.
Blackboard	The Blackboard virtual learning environment is widely used by staff and students involved in the Science Foundation Degree programme. The open-source Messaging Service Blackboard Building Block (plugin), developed at IT Research and Development Unit, London University of the Arts will be utilised to generate learning-related SMS text messages from within the Blackboard VLE. This facility integrates with the SMS Service described below.
SMS Service	The college is in the process of developing a MySQL database for storage of SMS text data and mobile phone numbers, which will interface with both KCOD and the Blackboard SMS Building Block. The database will in turn exchange messages with an externally hosted SMS gateway provided by Eagle Eye Technology who process inbound and outbound messages for all the mobile telephone networks in tandem with a delivery and billing service provided by Mblox.
Mobile Gateway	A dedicated mobile gateway will be established for the KASTANET project to present web-based learning content, RSS feeds derived from this content, host podcast data (MP3 files enhanced with video and PDF documents) and provide a blog facility. The mobile blog facility will be used by students to collaborate on assessment activities.
Microsoft Exchange	Microsoft Exchange's ActiveSync facility, part of the Windows 2003 Server System, will be used to generate and process email and other communication data such as calendar and task entries. All students will be provided with email accounts at Kingston College and this technology will be used as a mechanism for email contact between the tutors on the Science Degree Foundation course, for email communication between students and for provision of course information. Key dates in the course programme will be presented using the Microsoft Outlook calendar facility, while Outlook tasks will be used to set personal learning targets for students on the course.

2.3 Client devices

2.3.1 The project will utilise a range of mobile services. These range from simple text messaging through to more sophisticated web browsing and push communications. We have undertaken extensive research on the current availability of mobile technology of students presently on the SDF programme and elicited responses on the likely adoption of new services if they were provided. Feedback was gained through a questionnaire carried out in November 2006 on existing and requested services (see table to the right) and a focus group of six students.

Completed questionnaires	64
Own mobile	63
Monthly cost £20 and under	22
Monthly cost £21-£35	22
Monthly cost £36 and over	19
Own MP3 player	47
Regular SMS use	45
Significant benefit visualised for m-learning	51
Average monthly cost visualised for supplied handset	£15

2.3.2 Based on student feedback we anticipate three scenarios for student access to client mobile technology:

Scenario 1: Students use their own technology to access mobile services provided as part of the projects. Around 40% of students surveyed had sufficiently sophisticated multimedia and 3G-enabled mobile phones to access most of the services provided as part of the project (with the exception of push mobile communications).

Scenario 2: Students acquire a device and contract from Kingston College, acting as a reseller for Vodafone mobile devices (see section 2.3.3, below). We believe around 40% of students would adopt this facility.

Scenario 3: A hybrid arrangement based on use of students' own non-multimedia phones for text-based communication and a supplementary MP3 player loaned to students in this category by the college. We anticipate that this will be the smaller group, accounting for around 20% students on the course.

2.3.3 Kingston College has put in place a reseller agreement for the provision of 3G and WiFi-enabled smart phones to students on the Science Degree Foundation course. The arrangement will enable students undertaking the programme during the project implementation phase (2007-8 academic year) to set up a one year contract with the college. Pilot studies and market research with the existing student community at the college suggests that around 40% of students on the programme will take up the opportunity to take out this contract.

2.3.4 The table below outlines specific applications of different mobile technologies within the nine application areas of the project. The text includes references to the technology/application matrix in Appendix 2. Please refer to this table for an overview of the approaches that will be implemented in the KASTANET project.

Application	Proposed development
Induction	During the induction phase of the SDF course, voice (1a) and text (1b) messages will be sent to students welcoming them to the course and outlining the facilities available to them. Introductions to the course provided by the course team, in conjunction with former students who have progressed to Kingston University will be provided as an enhanced podcast (1c and 1d). An outline version of the course handbook structured for access on a mobile platform will be provided on the KASTANET mobile gateway (1e) whilst key course dates, including the assessment schedule, will be communicated using a shared Microsoft Calendar (1f).
Course information	Mobile release of information about course activities such as changes to the lecture timetable, forthcoming assignment deadlines and special events will be regularly issued to students. A number of channels will be used including automated voice messaging (2a), bulk dispatch of text and email messages (2b and 2e), HTML to SMS conversion of timetable information in response to student requests sent by text (2c) and provision of simple text-based web information on the KASTANET mobile gateway (2d), which will also be made available as RSS feeds for direct delivery to mobile devices (2h). The shared course calendar and personalised tasks will be used to set learning events and goals.
Progression	Strengthening the links between the College and University in terms of the student pathway is a core objective of the KASTANET project. To support progression between the two institutions video and PDF-enhanced podcasts (3a and 3b) will be produced on a monthly basis through contributions made by students on BSc science programmes who have started their HE programme on the SDF course. These will be supplemented by email contact between current and former students in a mentor relationship that will be established at the start of the project.
Content delivery	Audio podcasts (4a) of key lectures, supplemented by pre-lecture preparatory introductions and follow-up summaries will be used to present students on the SDF programme with an accessible mechanism for learning whilst they travel to and from college (typical journey times are 90 minutes each way). Video podcasts (4b) of laboratory techniques will also be created to support learning of hard-to-teach practical skills. Summaries (4c) will also be available of the lecture presentations for viewing on mobile devices supporting the PowerPoint viewer software. These will be supplemented by PDF versions. The mobile gateway will also include bandwidth-friendly lecture summaries (4d) and small Flash-Lite animations (4e) to illustrate key concepts.
Participation	The multimedia capabilities of mobile devices for capture of audio, picture and video files (5a and 5b) will be utilised in promoting active learning by students in the context of completing projects in the SDF programme. Students will also be able to edit simple Microsoft Office documents (Word and Excel) as part of their work on assignments. Interaction with learning content and the submission of student content as part of assignment activities will be facilitated through the establishment of a mobile blog environment within the mobile web gateway. This will handle receipt of both simple text (5d) and MMS (5e) submissions.
Collaboration	The use of mobile devices in promoting peer-based collaboration on group activities and assignments will be a central component of the project. This will revolve around a facility for students to submit simple text (6a) and multimedia content (6b) to group areas of the mobile KASTANET blog. Email

Application	Proposed development
	communication via mobile devices using the push communications supported by the college's Microsoft Exchange server (6c) will also be used for student to student interaction.
Testing	Testing of students will be carried out through automatic multiple choice questions delivered by SMS (7a) with occasional requirements for students to submit text-based data to the mobile gateway (7b). Short, frequently-issued tests following lecture presentation will enable students to rapidly check their understanding and for tutors on the SDF course to identify areas that are causing problems for students. These tests will be designed to be undertaken on public transport at the end of the college day.
Monitoring	Challenges presented by delivery of a rapidly expanding access programme include student performance, progress and attendance monitoring and subsequent communication with students who are identified as having problems on the course. Mobile technology, interfacing with the KCOD curriculum management application will be used to enhance this process and provide a more intimate and personalised way of supporting students. This will involve automatically generated text messages, triggered by performance data in KCOD (8b), email alerts (8c), scheduling tasks for remediation (8d) and where necessary phone calls to students who are not responding to other forms of communication (8a).
Feedback	Student feedback will be crucial to evaluating the impact of the KASTANET project and it is appropriate that mobile services are provided to facilitate this. SMS based mechanisms for outgoing requests (9a) and student responses (9b) are lightweight, rapidly deployed and provide an immediate sample of student experiences that is much more responsive than cumbersome end-of-course surveys delivered through traditional paper and web-based means. SMS feedback will be used after lecture and other course activities to elicit information directly from participating students on their views of the learning experience.

2.4 Evaluation

2.4.1 The crucial task of monitoring and evaluating the project will involve:

- Monthly **planning and review meetings** involving key project participants (project manager, SDF education adviser, content developer, technical developer and research coordinator).
- **Ongoing liaison** between technical, education and research teams at Kingston College and Kingston University together with mentor students at the University.
- Use of **text messaging** as a feedback mechanism and the mobile gateway as vehicles for learner feedback at key phases during the project (pilot trials, induction, end of semester 1, end of semester 2 and follow-up trials).
- Formative reviews using SDF **student focus groups** at the end of the semesters in the 2007-8 academic year.
- A **full project evaluation** using both qualitative and quantitative survey methodology will be undertaken in the final months of the project during early 2009.

2.5 Risks

2.5.1 The key risks and associated mitigating actions that are judged to be relevant to the project are outlined in the table below Key: P = probability, S = severity, I = impact (PxS). 1 = low severity, 5 = high severity.

Risk	P	S	I	Action to prevent/manage risk
Staffing (staff leaving because of short-term contracts)	1	2	2	Project posts will be filled by existing Kingston College and University staff.
Organisation (timescales, milestone and budget)	2	3	6	The Project Steering Group will involve senior managers from both organisations together with experts from external institutions.
Technical (problems with infrastructure to inhibit development)	1	5	5	High level IT support will be provided by both partner organisations.
Recruitment (student numbers fall on SDF programme)	1	2	2	Forward planning and marketing in place for SDF. The Technology Foundation Course could be integrated if necessary.
External suppliers	2	2	4	Head of IT Systems fulfils dedicated role in managing external suppliers.

3 Budget

3.1.1 The table below provides a breakdown of the principal costs and time commitments involved in the project. Please note that staff time, including on-costs, has been calculated at fractions of posts at different grades (TG – technician grade, STG – senior technician grade, SL – senior lecturer, MS – Management Spine). Hourly paid staff costs have been estimated at £40 per hour for teaching staff and £30 for organisational/technical staff. Staff are from Kingston College unless indicated (KU).

	Mar07	Apr07-Mar08	Apr08-Mar09	TOTAL £
Directly Incurred				
Technical developer (TG 0.6)	██████	██████	██████	██████
Technical support (TG 200 hours)	██████	██████	██████	██████
Education adviser (SL 200 hours)	██████	██████	██████	██████
Content developer, KU (SL 100 hours)	██████	██████	██████	██████
Evaluator, KU (TG 100 hours)	██████	██████	██████	██████
Administrator (AG 100 hours)	██████	██████	██████	██████
Total Directly Incurred Staff (A)	£3,900	£35,900	£13,200	£53,000
Non-Staff				
Travel and expenses	£500	£1,500	£1,000	£3,000
Data entry (student input)	£0	£500	£1,500	£2,000
Dissemination	£0	£1,000	£2,000	£3,000
Evaluation	£0	£1,000	£2,000	£3,000
Mentor contributions	£0	£600	£1,400	£2,000
Total Directly Incurred Non-Staff (B)	£500	£4,600	£7,900	£13,000
Directly Incurred Total (A+B=C)	£4,400	£40,500	£21,100	£66,000
Directly Allocated				
Project manager (0.1 MS)	██████	██████	██████	██████
Technical manager (0.1 SL)	██████	██████	██████	██████
Learning coordinator, KU (0.1 SL)	██████	██████	██████	██████
Steering group contributions	£500	£1,500	£1,000	£3,000
Content hosting	£500	£1,500	£1,000	£3,000
Estates	£500	£1,500	£1,000	£3,000
Total Directly Allocated Total (D)	£4,300	£18,700	£20,000	£43,000
Total Indirect Costs (E)	£500	£2,100	£2,400	£5,000
Total Project Cost (C+D+E)	£9,200	£61,300	£43,500	£114,000
Amount Requested from JISC	£8,000	£55,000	£37,000	£100,000
Institutional Contributions				
Surplus staffing costs	£1,200	£6,300	£6,500	£14,000
Hardware/software (server & devices)	£8,000	£2,000	£0	£10,000
Consultancy services (SMS integration)	£3,000	£1,000	£0	£4,000
Data hosting and general IT support	£1,000	£4,000	£4,000	£9,000
SMS contract	£500	£4,000	£1,500	£6,000
Total Institutional Contributions	£13,700	£17,300	£12,000	£43,000
Percentage contributions		JISC 70%	KC/KU: 30%	Total:100%

4 Key personnel

Title	Staff	Job title
Project manager	Andrew Williams	Director of ILT Support and Development, Kingston College
Learning Coordinator	Dr. Ian Piper	Foundation Year Coordinator, Faculty of Science, Kingston University
Content Adviser	Phil Whiting	Deputy Course Leader, Science Degree Foundation, Kingston College
Content developer	Dr Stuart Downwood	Senior Lecturer, Faculty of Science, Kingston University
Systems adviser	Nader Moghaddam	Head of IT Systems, Kingston College
Technical manager	David Robinson	Learning Information Services Manager, Kingston College
Technical developer	Ben Henderson	Web developer, Kingston College
Technical support	Garry Brooke	IT Systems Technician, Kingston College
Evaluator	Ann Ooms	Evaluator, Centre for Academic Development, Kingston University
Administrator	Amanda Patterson	Clerical officer, Personnel Division, Kingston College

FOI Withheld Information Form

We would like JISC to consider withholding the following sections or paragraphs from disclosure should the contents of this proposal be requested under the Freedom of Information Act.

We acknowledge that the FOI Withheld Information Form is of indicative value only and that JISC may nevertheless be obliged to disclose this information in accordance with the requirements of the Act. We acknowledge that the final decision on disclosure rests with JISC.

Section / Paragraph No.	Relevant exemption from disclosure under FOI	Justification
Not applicable	Not applicable	Not applicable

Please see <http://www.ico.gov.uk> for further information on the Freedom of Information Act and the exemptions to disclosure it contains.

Example:

Section / Paragraph No.	Relevant exemption from disclosure under FOI	Justification
2.4	s.43 Commercial Interests	Contains detailed description of our proposed system design which would damage our commercial interests if disclosed by making this information available to competitors

