

# Manchester Self-Directed Learning and E-Portfolios (MANSLE) Project

## Project Plan

Version 1.0 – 9<sup>th</sup> March 2005

Author – Neil Ringan, Project Manager, University of Bolton

### *Overview of Project*

#### 1. Background

This project has been developed under the aegis of the Greater Manchester Strategic Alliance (GMSA) which is a grouping of all HE and FE institutions in the Greater Manchester sub-region along with agencies such as the North West Development Agency and the Learning and Skills Council. The GMSA seeks to extend and widen opportunities for participation in higher education and to provide greater coherence to learners and prospective learners. A key initial focus of the GMSA has been on the establishment of foundation degrees across the sub-region, and to address the challenges of supporting work-based learning and progression on programmes of this nature.

This project supports explicitly the work of the GMSA and its constituent institutions in this area by providing tools and systems for the personal development planning (PDP), self-directed learning and portfolio development of learners on foundation degree programmes in the health and social care subject domain. These approaches to learning are a key aspect of higher education, particularly within the contexts of widening participation and work-based learning. A number of foundation degree programmes developed within the GMSA have already embedded some or all of these approaches to student learning as part of their course design. However these programmes rely on manual approaches and, given the nature of the learner/mentor/teacher relationships inherent in work-based learning programmes, have proven to be problematic to facilitate and do not easily support student progression within and between institutions.

A clear need has been identified within the GMSA through experience in delivering existing programmes for systems and processes, within the context of a work-based learning programme, to provide support to learners on foundation degrees in :-

- planning their own personal development,
- implementing effective approaches to reflection and self-directed learning

The role of the mentoring relationship between learners, academic staff and workplace mentors has also been identified as a specific area where alternative approaches need to be considered in order to provide an effective learning experience.

In addition to the needs identified above for learners to be more actively engaged in planning and managing their learning, they also need to record the activities and artefacts which underpin and supplement their learning. This may need to be undertaken within the context of engaging in and reflecting on a range of learning experiences and support from multiple providers simultaneously and where progression onto other programmes may involve the transfer of PDPs and portfolios between institutions.

To ensure that the learning approaches described above are effectively embedded within foundation degree programmes and the student learning experience, it is essential that the underpinning pedagogy is supported by well-designed, accessible and interoperable technical systems.

## 2. Aims and Objectives

### Aim

The overarching aim of the MANSLE project is to support the work of the GMSA and its constituent organisations by developing and piloting a range of technology-based tools to support student learning through the use of personal development planning, self-directed learning and portfolio development tools and to support mentoring relationships within the context of work-based learning foundation degree programmes.

### Objectives

The specific objectives of the MANSLE project are to :-

- Undertake a user requirements and needs analysis to identify exactly how users wish to utilise technology-based approaches to PDP, self-directed learning, portfolio development and e-mentoring within the programmes identified within this project.
- Evaluate a range of personal development planning, e-portfolio, e-mentoring and student self-directed learning software tools which conform to web services and interoperability standards and could effectively be implemented and piloted within the project lifecycle.
- Assemble a technical system comprising a user interface to access the selected features of the technical system(s) chosen as a result of the needs requirement and evaluation activities
- Work with staff in partner institutions to design how the system may be implemented within their own institutional contexts and to ensure appropriate workflow and business models are in place to effectively embed and sustain the toolset developed
- Implement the technical system within a range of foundation degrees to support student learning in the context of a work-based programme of study and to ensure that the resulting data and information stored within the system can be effectively interchanged with institutional systems to support student progression
- Assess and evaluate the interoperability of systems and data developed within the project in the context of institutional legacy systems and other emerging open source PDP, portfolio and mentoring systems.
- Evaluate the experience, and disseminate the results via events and publications including scenarios and use cases to other institutions within the GMSA, the North West region and the wider JISC community.

## 3. Overall Approach

### Strategic Approach and Outline Project Methodology

The overall approach to be adopted within the project can be categorised within the following four broad areas.

#### 1) Needs analysis and definition of the toolset required

In order for the tools developed within the MANSLE project to be utilised effectively to support students on foundation degree programmes it will be essential to ensure that the requirements of teaching staff, workplace mentors and students are adequately supported. To this end a detailed needs analysis will be undertaken through a combination of focus groups, questionnaires, plenary workshops and demonstration. These analyses will focus on identifying the outcomes, processes and pedagogic approaches which the various stakeholders identify as being in need of further development or which could be supported more effectively through the use of learning technologies. The needs analysis will adopt a “blue skies” approach and will not be informed by the possible technology solutions which may be adopted in later stages of the project.

#### 2) Evaluation and selection of tools and systems

A detailed evaluation from technical, pedagogic and implementation perspectives will be undertaken of a range of open source tools produced by JISC-funded projects and other sources to identify their potential utility within the MANSLE project. These evaluations will focus on

identifying specific functionality which could be utilised to support the areas identified within the needs analysis conducted, irrespective of which tool the component resides within. It is recognised that no current single system will provide the toolset necessary to support the MANSLE project and therefore the intention will be to identify a series of functional components which will be assembled within an online interface accessible across the project partners. This interface will be the integration point for the various components of the existing tools selected. Evaluations will focus on ensuring that :-

- the source code of the various tools can be supported by the project team;
- the tools conform to appropriate interoperability standards to ensure data can be transferred between individual components identified and between institutional legacy systems
- the pedagogic approach adopted by the tools is consonant with (or can be adapted to meet) the approaches adopted within the pilot programmes within this project

### 3) Design and implementation of an integrated toolset

The principal technical dimension of this project will be in ensuring the effective integration of a range of components and tools selected as a result of the evaluation and needs analyses outlined in points (1) and (2) above. An integrative interface will be developed and hosted on a server purchased using the project budget which will enable learners and staff to have access to the various components of the toolset. An approach based on the use of web services adhering to appropriate interoperability standards will be utilised in order to ensure that data flows within the various components of the assembled toolset is transparent to the user and that, where appropriate, it can integrate with institutional legacy systems. Authentication measures will be implemented to ensure only authorised users have access to the corresponding data.

### 4) Implementation and evaluation of the toolset

Following piloting and testing of the technical infrastructure developed to support the project, its use will be piloted in a range of foundation degree programmes across the project partners. It is anticipated that different partners may wish to utilise only specific aspects of the toolset developed to support the specific nature and structure of their individual programmes. Where partners already have technology-supported tools to support the use of PDP, portfolio development or student-directed learning, the project team will attempt to ensure that data can be effectively interchanged. Evaluation of the project will be undertaken on an ongoing basis throughout the implementation phase and will focus on user and impact evaluations, as well as technical and operational evaluation.

## Issues to be Addressed

The principal issues which are likely to impact on the project, and the approaches which will be adopted to address these are outlined below.

- **Identifying an agreed functional specification of the toolset to be produced to support the needs of a diverse range of stakeholders and programmes.** A collaborative approach will be taken to identifying system requirements and priorities will be attached to various elements to ensure the most important aspects are implemented initially.
- **Ensuring interoperability between the various tools and components identified within the evaluation phase.** This will form a major aspect of the technical evaluation phase and where necessary, additional programming or coding will be undertaken to ensure necessary components can be integrated within the final toolset.
- **The availability of tools funded from various other JISC projects.** Where feasible, alternative tools or components will be identified should the primary tool not be completed within the required timescale to support this project.
- **Supporting student progression and mobility by implementing a system which will integrate with institutional legacy systems going forward.** The design and development of the project toolset will adopt a fully standards-compliant approach. Discussions will be held with appropriate contacts within partners during the piloting of the project to identify potential data interchange and authentication issues.
- **Ensuring the effective integration of work-based learning within FE and HE programmes.** Traditionally, elements of an academic programme which have been considered as “work-based learning” have often been treated differently from conventionally

delivered academic elements. The toolset developed within the project will support the closer integration of conventional academic elements with work-based elements of a programme and the implementation of the project will develop guidelines to support these activities.

- **Providing appropriate access to tools and data by learners from a range of locations.** Learners will access the MANSLE toolset from academic institutions, the workplace and from home. Appropriate authentication and access control mechanisms will be implemented to ensure learners are able to view and update their records from all required locations.

### **Project Scope and Boundaries**

The principal objective of the MANSLE project is to develop an online toolset which conforms to interoperability standards to support learners on foundation degree programmes in their personal development planning, the production of portfolios and in reflecting on and managing their learning. Given the project timescale it is recognised that the final system produced may not be fully functional across all of these areas. The project is ultimately a proof of concept pilot to demonstrate that such a system can be developed and implemented. It is recognised that there are many issues surrounding the technical interoperability of learning technology systems which may impact on this project and consequently, where necessary, *ad hoc* approaches may need to be adopted to ensure the project achieves its stated goals. Additionally the use of PDP tools and student portfolios is an area of high interest within the FE and HE sectors but one in which there is little commonality of approaches to implementation. In developing a toolset to support these areas a pragmatic approach will be adopted which provides a platform which individual partners can utilise in a variety of ways to support their own requirements, and which will be capable of further development to incorporate diverse approaches.

It is not the intention of this project to deliver a fully operational system to support the use of PDP, portfolio development etc for the GMSA however it is recognised that the system developed could form a useful basis for further work in this area. It will also not be possible to deliver a system which fully integrates with legacy systems at partner institutions to support user authentication and data interchange. However as previously indicated, where practical, these areas will be explored to support student progression and to enable learners to draw on experiences and artefacts from a range of learning providers.

### **Critical Success Factors**

- Production of an agreed functional specification for the MANSLE toolset based on the needs analyses undertaken with a range of stakeholders.
- Aggregation of a range of tools and tool components into an assembled system adhering to web service criteria and interoperability standards hosted on a project server.
- Embedding of the toolset developed within the foundation degree programmes identified in the project bid to support student personal development planning, portfolio development and self-directed learning.
- Engagement of academic staff and learners on all foundation degrees supported by the pilot, and the support at a strategic and technical level from the GMSA and project partners.

## **4. Project Outputs**

### **Tangible Deliverables**

- Needs analysis report
- Evaluation report of systems reviewed
- Mapping document between needs analysis and systems evaluation
- Interoperable assembly of the selected tools and tool components to provide the MANSLE toolkit
- Web-based interface (with appropriate authentication) to the tools and tool components assembled to support the project
- Support provided to 3 distinct foundation degree programmes across 8 partner organisations
- A minimum of 100 students across the range of foundation degrees and partners enrolled on the MANSLE interface and utilising the tools provided
- Project website to support the project team and dissemination activities
- Processes for data integration with institutional legacy systems

- Final project evaluation report
- Case studies describing the implementation of the MANSLE toolset within foundation degrees
- Two interim dissemination events to GMSA and NWUA communities
- Final project dissemination event to the wider FE and HE sector

### **Capacity and Capability Development**

- Technical experience in assembling interoperable tools to support student learning
- Pedagogic experience in deploying and piloting a range of learning technologies to support PDP, portfolio development and mentoring within foundation degrees
- Experience of supporting collaborative and regional approaches to eLearning from technical and pedagogic perspectives
- Increased awareness of interoperability issues and their impact on institutional eLearning developments
- Greater sectoral understanding of the issues associated with the design and deployment of interoperable systems to support work-based learning and student progression.
- Opportunity to share practice in relation to the use of PDP, portfolios, student-directed learning and e-mentoring to support foundation degree and other programmes
- Collaboration with technical staff at project partners to discuss issues associated with data interchange and systems interoperability

## **5. Project Outcomes**

- Creation of a pilot to form the basis of a GMSA-wide tool to support work-based learners in undertaking PDP; creating and maintaining portfolios and reflecting on and managing their learning
- Review and evaluation of the design and implementation of foundation degree programmes to more effectively embed technology based support for work-based learning and student progression
- Review and evaluation of institutional systems and processes to reflect emerging interoperability standards and to ensure effective data integration and interchange to support work-based learning and student progression within the context of a sub-regional lifelong learning network
- Development of a network of contacts to support the further development of technology-supported PDP, portfolio development, etc
- Provision of a supportive infrastructure to support the further development of a range of initiatives at project partner institutions and within the GMSA more widely
- Increased understanding of the potential application of a range of learning technologies to support work-based learning

## **6. Stakeholder Analysis**

<b>Stakeholder</b>	<b>Interest / stake</b>	<b>Importance</b>
Academic staff supporting the project	Changes to delivery and support for foundation degree programmes. Use of tools to support work-based learning	High
Students on foundation degree programmes	Support for their learning and personal development through the use of technology	High
The Greater Manchester Strategic Alliance	Potential development of a tool available across the GMSA community	Medium
Technical staff in partner institutions	Interoperability of systems and data with legacy systems	Medium
JISC and HEFCE	Pilot of the use of the toolset within the context of a sub-regional lifelong learning network	Medium

Technical developers of systems	Assembly of individual components into toolset. Evaluation of use of tools with learners	Medium
Other JISC Regional DEL pilot projects	Common issues and approaches within similar projects	Medium
Senior Staff in Project Partner Institutions	Potential impact on strategy and links with other institutions	Low

## 7. Risk Analysis

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
<b>Staffing</b>				
Unable to appoint staff with appropriate skills to support project	2	4	8	Identify potential alternatives for each core member of the project team.
Staff in project partners unable to be released	2	4	8	Identify named contact in early stages of project. Agree institutional commitment to release
<b>Organisational</b>				
Lack of students at individual partners	3	3	9	Identify potential alternative foundation degree programmes in which to pilot the toolset
Lack of engagement or commitment by individual partners	3	5	15	Identify alternative partners and/or foundation degree programmes who could be engaged if necessary
<b>Technical</b>				
Functionality identified from needs analysis not available within existing tools	3	4	12	Prioritise functionality identified and identify potential other approaches (e.g. additional programming)
Identified tools prove problematic to integrate	2	5	10	Utilise funding to commission additional development and coding to ensure integration
<b>External suppliers</b>				
Tools or components from other projects not available in required timescale	3	4	12	Identify potential alternatives with similar functionality in early evaluation phases.
<b>Legal</b>				
No risks identified				

## 8. Standards

This project is exclusively concerned with learner information and e-portfolios, and will be implementing systems that already support, or are implementing IMS Learner Information Packaging (LIP), IMS e-Portfolio or related application profiles such as UKLeaP. However since we are using technologies developed elsewhere, it will not be part of the project to implement these, rather to explore their application and effective interoperability.

## 9. Technical Development

This is not a project developing new systems, but rather a project that seeks to implement systems developed elsewhere by previous JISC projects. However there may be some customisation and user interface development, and this will be based on an evaluation of user experience, with several cycles as indicated in the project plan.

The project will be examining the adoption of a web services approach to implementing the MANSLE toolset. The approach adopted is consonant with that of the eLearning framework

(<http://www.elframework.org>) currently being developed internationally with JISC as the UK partner. All technical developments and any additional coding or customisation required to develop the assembled MANSLE toolset and interface will conform to appropriate interoperability standards.

## 10. Intellectual Property Rights

All tools and tool components which will be explored by the project form part of the UK publicly-funded FE and HE communities and therefore no IPR issues are associated with this project.

## Project Resources

### 11. Project Partners

Partner	Contact	Primary Role	Agreement
The University of Bolton	Neil Ringan	Lead partner. Project management. Technical development	
The University of Salford	Tim Duerden	Foundation degree provider. Implementation Pilot	
The Open University	Terry Cowham	Implementation Pilot	
Hopwood Hall College		Implementation Pilot (Bolton)	
Oldham College		Implementation Pilot (Bolton)	
Bury College		Implementation Pilot (Bolton)	
Stockport College		Implementation Pilot (Salford)	
Wigan & Leigh College		Implementation Pilot (Salford)	
Greater Manchester Strategic Alliance	Brian Allan	Project sponsor	

## 12. Project Management

### Project Board

The overall responsibility for directing the project will rest with the Foundation Degrees Group of the Greater Manchester Strategic Alliance. The membership of this group will be augmented by the MANSLE project manager. The project managers of the other two NWUA JISC DEL projects will be invited to attend these meetings to ensure effective sharing of practice.

The project board will have ultimate authority in relation to all aspects of the operation of the project and will be responsible for all decision-making and conflict resolution processes. The board will also be responsible for agreeing responses if any identified or other risks impact on the project and for agreeing any changes to the project budget.

### Project Management Group

The day to day direction of the project will be co-ordinated by the project manager based at the University of Bolton, Dr Neil Ringan. To support the management of the project, an operational group will be created composed of all of the project contacts identified in (11) above, along with the project technical developer and pedagogic advisor. This group will report to the GMSA Foundation Degrees Group.

The project management group will be responsible for ensuring the effective implementation of the project plan; agreeing, monitoring and amending project timelines; ensuring institutional commitment and integration, and organising and undertaking dissemination activities.

The project manager will devote 3 days per week to supporting the project and will be responsible for coordinating the work of other members of the project team; monitoring and escalating project issues to the project board; monitoring the project budget and administering the project. The project manager is accredited in the PRINCE2 methodology, and elements of this approach will be utilised within the MANSLE project.

### Training Needs

Training will be provided to all staff involved in pilot implementation of the MANSLE toolset in the technical operation and pedagogic integration of the assembled toolset. Technical training in the development and integration of the various tool components will be undertaken by the project technical developer as necessary.

## 13. Programme Support

No support requirements identified.

## 14. Budget

The project budget is attached as Appendix A. The nature of the consultancy component of the budget will be dependent on the final range of tool components identified; the amount of additional customisation or coding required to achieve the functionality identified in the needs analysis, and the extent to which this additional development can be undertaken by the project technical developer. This element of the budget will be reviewed by the project management group and revisions or virements to other elements of the project budget will be agreed by the project board.

## Detailed Project Planning

## 15. Workpackages

Details of the individual workpackages associated with the project are attached as Appendix B.

## 16. Evaluation Plan

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
Feb – Mar 06	Usability and effectiveness	How usable was the final toolset and what was the impact on student learning ?	Usability studies. Focus groups with students	High score from usability analysis. Positive experience of learners using toolset
Feb – Mar 06	Pedagogic impact	How effectively does the assembled toolset support work-based learning and student progression ?	Focus groups / interviews with staff in project partners	Provision of effective support to staff and foundation degree programmes.
June – Sept 05	Technical interoperability	How facile were the tools to aggregate ? How effectively did data interchange occur ?	Analysis of compliance with standards	Minimal additional development required.
Sep 05 – Mar 06	Collaboration between sub-regional partners	How effective was the collaboration between partners ? Has the project	Interviews with partners and the GMSA	Closer working relationships between staff in partners. Greater engagement with GMSA agenda.

## 17. Quality Assurance Plan

Timing	Compliance With	QA Method(s)	Evidence of Compliance
Jul – Sep 05	Fitness for purpose	Needs analysis. Focus groups.	Toolset delivered adheres to needs analysis
Apr 05 – Mar 06	Best practice for processes	Correlation with emerging national and regional practice.	Systems and processes adhere to emerging good practice.

Aug 05 – Feb 06	Adherence to specifications/ standards	Participation in CETIS events and “code bash”	Interoperability with other systems
Aug 05 – Feb 06	Accessibility legislation	Usability testing. Testing with range of assistive technologies	Transcripts of test sessions with users with various accessibility requirements

## 18. Dissemination Plan

Timing	Dissemination Activity	Audience	Purpose	Key Message
May 05	GMSA workshop	Senior GMSA and institutional staff	Awareness raising of project and ensuring buy-in	Purpose of project and commitment to supporting delivery
Jul – Sep 05	Training and implementation sessions	Operational staff in project partner	Training in technical and pedagogic use of the MANSLE toolset	How to embed and utilise tools to support work-based learning
Feb 2006	Regional workshop (with JISC RSC)	Staff in NW FE and HE institutions	Demonstration of toolset and use cases plus evaluation	How the toolset has been utilised and lessons learned
Mar 2006	National workshop (with JISC)	Staff in national FE and HE institutions	Demonstration of toolset and use cases plus evaluation	How the toolset has been utilised and lessons learned
May 05 – Mar 06	Project website	1) Project partners 2) FE and HE community	1) Support communication between partners. 2) Public awareness of MANSLE project	1) Forum to communicate and discuss issues 2) Aims and current project activities

## 19. Exit/Sustainability Plan

Project Outputs	Action for Take-up & Embedding	Action for Exit
MANSLE toolset and interface	Further collaboration with GMSA to develop and embed toolset	Ensure appropriate access to, and maintenance of, server.
Technical development and interoperability issues	Feedback and collaboration with developers of original tools utilised. Collaboration with technical and MIS staff at GMSA institutions to ensure ongoing support and embedding	Technical issues disseminated across wider FE and HE communities. Knowledge and experience gained is codified in reports and on website
Pedagogic lessons and use cases	Ensure lessons relating to course design and implementation are actioned in project partners	Knowledge and experience gained, and case studies and use cases are codified.

*List any project outputs that may have potential to live on after the project ends, why, how they might be taken forward, and any issues involved in making them sustainable in the long term.*

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
MANSLE toolset	Potential application across wide range of foundation degree programmes	Explore funding possibilities with GMSA and other agencies	Funding for future development, Location and maintenance of server. Data ownership issues
Project use cases	Examples of utilising	Liaise with HE Academy to	Availability of staff after

and case studies	learning technologies to support work-based learning and student progression	ensure appropriate integration with their activities in these areas.	the end of the project to further develop the documentation, etc.
Sub-regional networks	Useful forums for discussing use of learning technologies within this context	Embed within existing and future GMSA and sub-regional initiatives	Staff commitment

## ***Appendixes***

### **Appendix A. Project Budget**

### **Appendix B. Workpackages**