

BIILS Project Case Study 1

Leeds Metropolitan University

Institution	Leeds Metropolitan University
Date	1 February 2010
Background	Wendy Luker, Adam Watson and Arthur Sergeant are involved in reviewing academic services at Leeds Metropolitan University along with Rob Moores from Information, Media and Technology Services and other academic colleagues. They are investigating the potential benefits and issues associated with a service oriented architecture (SOA) for delivery of services such as those provided by the university portal, VLE and Library systems, and are currently procuring a new portal. In addition, an e-portfolio tool is being selected and this is being led by academic staff – a new approach.
Evaluation Focus	Leeds Metropolitan are working with JISC as one of the Flexible Service Delivery projects and as part of this have convened a strategic technologies group to examine the costs and benefits of a service-based approach. Leeds Met was provided with support for a cost-benefit exercise from Strathclyde via a workshop based on outputs of phase 1 of the BIILS Project. For the purposes of this workshop, the focus was on <i>one</i> of the systems under review – the proposed new university portal which also incorporates a VLE. Leeds Met can now use a similar methodology for investigating the costs and benefits of the other systems under review if appropriate. Work done prior to the workshop by Leeds Met involved costing for the new portal system, however this was based on the additional costs for required capital equipment only. The workshop aimed to provide support for more thorough and accurate costing and also to provide a comprehensive way to investigate and evaluate the benefits so that value for money could be considered as a major aspect of the decision making involved.

1. Workshop Aims

Leeds Met – to be provided with support for analysing costs of systems being implemented as part of its investigation into the delivery of flexible services, with a focus on the university's *portal*.

Strathclyde – Field test evaluation toolkit from BIILS Project by using it to inform cost-benefit analysis workshop at Leeds Metropolitan University.

It was stressed that costs cannot be examined in isolation; *value for money* can only be assessed in terms of benefits derived from investment, therefore the relationship between costs and benefits was examined as part of the workshop.

2. Attendees

The workshop was run by members of the BIILS Project Team from the University of Strathclyde:

- Caroline Breslin, Principal Innovation Officer/BIILS Project Manager
- Diane McDonald, Head of Innovation Services and Projects/BIILS Project Director

Participants from Leeds Metropolitan University:

- Wendy Luker – Project Director
- Rob Moores – Lead Strategic and Technical Consultant
- Arthur Sargeant – Project Manager
- Adam Watson – Project Consultant

3. Workshop Format

The workshop began with an overview of the BIILS Project and its findings and framework. This was followed by detailed information relating to costing ICT investments and corresponding activities to identify costs of the proposed Leeds Met portal. The BIILS Team then presented detailed information relating to the benefits of ICT investments and their evaluation, which was followed by activities to identify a range of benefits related to the Leeds Met Portal, to weight them according to importance and to rate them for the current set up and the proposed new set up following investment in the portal. Following this, the team discussed how best each of the benefits could be evaluated in practice in relation to the BIILS Project Framework. A sum up and recommendations for future work were discussed at the end of the workshop.

4. Cost Benefit Analysis

This section contains the cost benefit analysis (CBA) carried out as part of workshop activities at Leeds Metropolitan University.

4.1 Context of CBA

The investment focused on for the purposes of the workshop was Leeds Metropolitan University's proposed investment in a new corporate portal which incorporates a VLE. This system will be the gateway to information and services for students and staff, combined with the institutional VLE. Its

features will be pass-through authentication, content aggregation, communication and collaboration tools, personalised content delivery and customisation services.

The portal is part of the *BlackBoard* VLE and will replace the existing system, *Luminis*. Stakeholders include system users – students, academics, administrators – and the library, the computing service, faculties, central services and external organisations.

4.2 Timescale for CBA

The agreed timescale over which to consider cost-benefit analysis was 3 years. This was determined after detailed discussion taking into account the cost of change and the time required to fully realise benefits.

4.3 Full Vs Marginal Costing

In order to determine the best approach for this cost benefit analysis, the participants discussed the relative merits of full and marginal costing for the Leeds Met portal investment, and for the other investments planned. Note that all of the other systems are separate, but it was highlighted that elements of them may have to be costed as part of the ‘before’ scenario in any case.

When discussing full Vs marginal costing, there was a consensus that full costing was the best approach. The team felt that full costs would be investigated in order to calculate marginal costs anyway. Also, as the University is moving from two systems to one, they felt that the costs could not be understood unless full costing was done due to the complexity.

A summary of the pros and cons of full and marginal costing discussed on the day is shown in the table below.

Full Costing Pros (Marginal Costing Cons)	Full Costing Cons (Marginal Costing Pros)
In order to calculate full costing figures, marginal are calculated anyway	Time consuming
Full complexity is captured	Accuracy of full costing may be questionable
Information collated is transferable for other complementary purposes	Full costing figures may be unpalatable
Costing of services could be done to tie in with University Policy and/or FSD Project requirements	Publication of full costing may raise a department or service’s ‘head above the parapet’
Added benefit of experiential learning – what do we uncover by going through the process? Are there any unexpected benefits? Or downfalls?	

4.4 Costs

After being provided with information on costing, the project team carried out a costing activity to identify full costs relating to services before and after the proposed new implementation at Leeds Met. This activity included consideration of costs for support services, infrastructure and for the core activities relating to the investment. Full costs were considered for the current set up and for the proposed future set up. These costs were to include the one-off costs of change and also the recurrent costs for each scenario.

The project team agreed that they had to cost consistently across all projects, otherwise it could be confusing to others and would also give the impression that one system had huge costs in comparison to others which had not been fully costed. They also discussed that the proposed e-portfolio system had no 'before' scenario for comparison, although they did agree that elements of other systems and services which offer some of the same functions could be examined instead. The portal would definitely be fully costed as the University is not replacing systems 'like for like'.

The project team discussed the option of using the University's standard overhead figure on staff costs to determine an approximation of full costs rather than fully costing support activities and then apportioning them. Rob Moores also referenced the use of discounted cash flow for capital expenditure, where potential future cash flows are estimated, but then discounted in order to provide an equivalent present value.

4.5 Benefits

The project team then carried out an activity to identify a range of benefits relating to the portal investment and weighted them in terms of relative importance. Following this, the team rated each benefit in turn in terms of how well it was delivered by the current set up and how well it was expected to be delivered by the proposed solution. Finally, the team discussed how best to evaluate expected benefits in terms of the 8 BIILS Evaluation Methodologies.

4.6 Cost Benefit Analysis Outcome

Costs

		Current	Year 1	Ongoing Annual Cost
To be apportioned as percentage of service costs				
E.g. 5% of (full economic costing) staffing costs				
Support Services:	HIP (Help Information Point)			
	TES			
	Norman (Out of service support)			
	IT Helpdesk			
Direct Costs:		Note that cost figures are confidential and have been removed		
Servers	Per year for 4 years			
Server software				
Staffing (increase with inflation)				
Training (Training reduced after 1st year)	VLE portal team +IMTS			
Licence	Staff and Student			
Luminis	(~30/70 portal/VLE split)			

Benefits

BENEFITS	Weighting	Rating (Before)	Rating (After)	Evaluation Activities	Score Before	Score After
Institutional:						
Guaranteed portal availability	10	8	9	3. Benchmarking	80	90
Reduced cost (licence and hardware)	7	3	8	1. Financial	21	56
Update rather than replace	7	2	8	4. Informal Review	14	56
Space and time for future developments	7	1	8	5. Investigative	7	56
information integration	7	4	8	4. Informal Review	28	56
Simplified IT Support	4	7	8	5. Investigative	28	32
Risk avoidance	7	1	8	2. Target Setting	7	56
Aesthetic improvements/usability	8	3	7	6. Customer-Focused	24	56
Pedagogical:						
Integrated VLE/portal platform	5	4	8	2. Target Setting	20	40
Improved access to VLE resources	7	6	8	3. Benchmarking	42	56
VLE content more visible in portal	7	1	7	6. Customer Focused	7	49
External						
Reputational positives	4	4	8	3. Benchmarking	16	32
Greater cooperation with supplier	7	3	7	4. Informal Review	21	49
Total Weighted Score					315	684

Cost Benefit Analysis

The first chart in Figure One shows the comparison of annual costs for the 'before' and 'after' scenarios with the corresponding weighted benefit score for each. This should be interpreted as the after scenario that can be achieved for the investment cost.

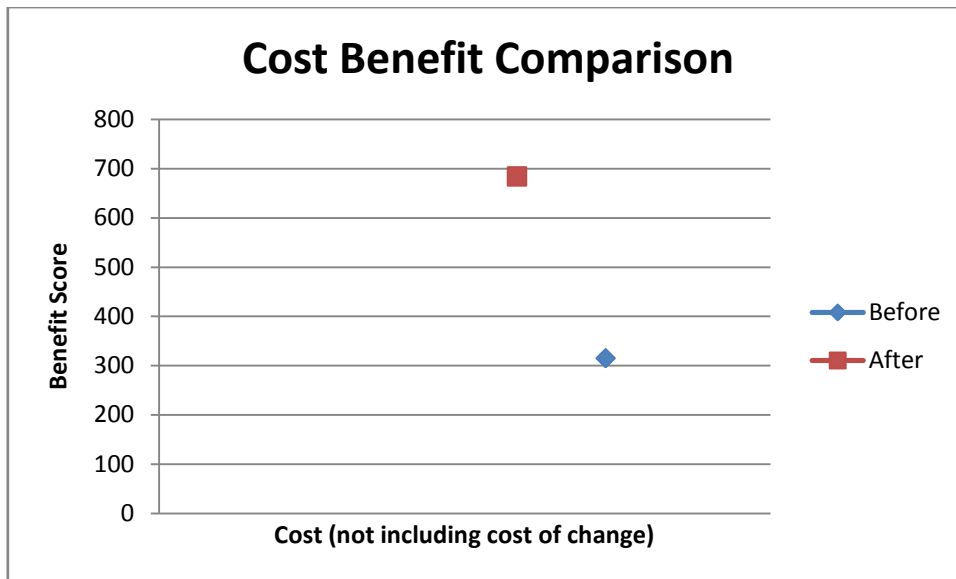


Figure One: Cost benefit analysis using annual costs

The second chart in Figure Two shows the comparison for the 'before' and 'after' scenarios, but with the costs for the 'After' scenario incorporating the cost of change with the corresponding weighted benefit score for each. The cost of investment does not need to be considered separately.

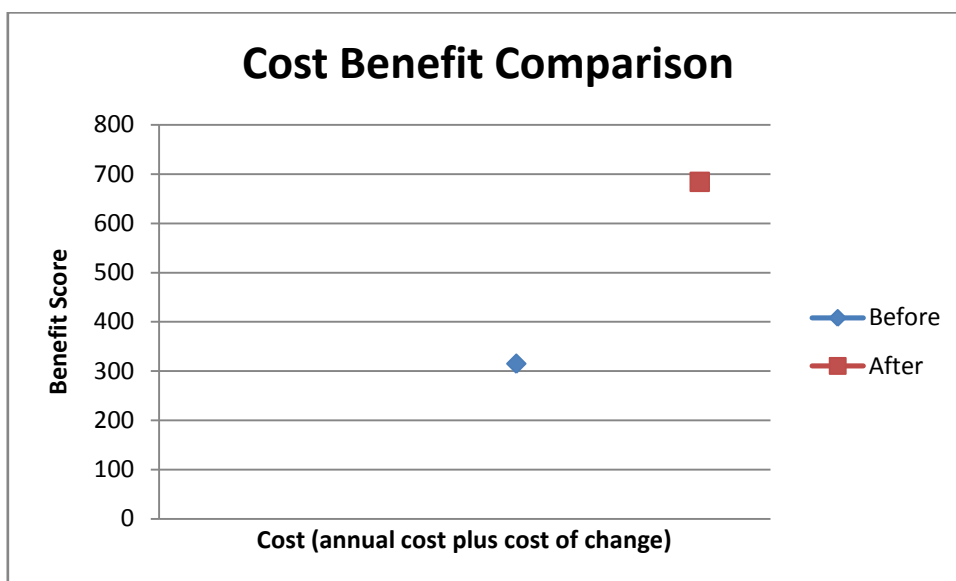


Figure Two: Cost benefit analysis using annual costs plus cost of change

5. Reflection on Cost Benefit Analysis

The outcomes of the day were summed up and reviewed via discussing the following open questions:

- Did the participants consider that all costs had been identified and included?

- Did costs include sensitive information? Taking into account staff grades and political implications, for example changing staff numbers or roles should investment go ahead.
- Have all stakeholder views been represented in the benefits and their evaluation? Who else needs to be involved in future iterations of this exercise?
- Were initial 'hunches' correct?

It was stressed that the day's outcomes, although useful, were intended to be the first steps towards developing a cost benefit analysis for the University's investment. The process is intended to be iterative and other opinions may need to be represented when applying values to benefits weightings and ratings. In addition, the costs of services to be apportioned to the project costs were not identified on the day. Although an iterative process the team were cautioned against going through iterations making changes to achieve the 'desired' result.

The project team felt that the workshop did confirm the need a structure for conducting cost-benefit analysis that can be contextualised for individual institutions. Arthur Sergeant felt that the analysis carried out, being conducted retrospectively having already made an investment decision, was reassuring.

6. Reflection on Workshop and Process

In order to consider the value of the workshop and determine to what extent it had been worthwhile, the group considered what they had gained from the session, what (if anything) they would do differently and why, and what was useful/not useful and why.

The group felt that the workshop had been exactly what was needed for project. During the activities they considered costs that had not previously been identified. The cost benefit analysis process and outcomes has implications for how the projects are represented internally at the University and the benefits weighting and rating was found to be very useful; the team had only considered functionality before.

With regards to risk management, the University would like to see more detailed costs and the workshop was a tool to investigate and frame these.

7. Future Work

The BIILS Project Team recommended that further iterations of the cost-benefit analysis would be required for the portal; the figures could be refined with more stakeholder views, and more detailed or additional information, etc. The Leeds Met Team commented that developing a spider diagram would be useful; it would enable them to incorporate workshop outputs into activities that they already do, could have spider diagram that compares before and after.

If appropriate, similar cost-benefit analyses could be applied to other (potential) investments related to the Flexible Service Delivery Project. The project team did feel that using the same method for the University's e-portfolio investment would be highly suitable.

The BILLS Project Team recommended that the Leeds Met Team review the 'Insight Project' ¹ for a method of 'light touch' activity based costing to baseline the costs of services at the University.

¹ <http://www.strath.ac.uk/learningservices/innovation/projectarchives/insight/>

BIILS Project Case Study 2

Oxford University Computing Services

Institution	University of Oxford – Computing Services
Date	23 April 2010
Background	<p>The University of Oxford is running 2 JISC-funded FSD (Flexible Service Delivery) projects. Stuart Lee (Director, Computing Systems and Services) and Mike Fraser (Head of Infrastructure) are responsible for TRAC-related work (Transparent Approach to Costing) and Student Services is investigating a service oriented architecture approach. IT services at the University are currently funded by top-slicing from departments and the project team wishes to analyse services on offer and potentially refine this charging model. In addition, they would like to begin investigating benefits, and potentially look at costing different levels of service in the future.</p>
Evaluation Focus	<p>The University of Oxford has a devolved IT structure, however has recently moved to a central service for Exchange and SharePoint with many of the local systems shutting down. This project finished at the end of March 2010 and was deemed ideal for a cost benefit analysis workshop informed and supported by the BIILS Project as Oxford has conducted user surveys and therefore has figures to draw on when considering benefits. The focus of the workshop was the new central implementation of Exchange which was compared to the previous set up – multiple devolved email systems running concurrently.</p> <p>JM Consulting will be involved in helping Oxford to investigate and cost 3 of the IT services hosted by Oxford University Computing Services using TRAC methods. The BIILS support for costing is much more 'light touch' and may feed into the planned full costing exercise therefore the workshop will focus more on evaluating benefits which will allow value for money to be considered as soon as the full costing exercise is done. Oxford referenced a particular interest in investigating unexpected benefits whereby benefits not identified in the original business case may be realised.</p>

1. Workshop Aims

Oxford University Computing Services – to further understand approaches to costing and evaluation of benefits of IT Services as part of JISC’s Flexible Services Delivery Programme – focus on move from devolved to centralised provision of Exchange and SharePoint.

University of Strathclyde – to field test evaluation toolkit from BIILS Project by using it to inform cost-benefit analysis workshop at OUCS

It was stressed that costs cannot be examined in isolation; *value for money* can only be assessed in terms of benefits derived from investment; without a concept of how centralised services are expected to improve IT provision via identification and quantification of benefits, then no change or investment can be justified.

2. Attendees

The workshop was run by members of the BIILS Project Team from the University of Strathclyde:

- Caroline Breslin, Principal Innovation Officer/BIILS Project Manager
- Diane McDonald, Head of Innovation Services and Projects/BIILS Project Director

Participants from the University of Oxford:

- Stuart Lee – Director, Computing Systems and Services
- Michael Fraser – Head of Infrastructure Systems
- Peter Jones – Senior Specialist (HFS) and Technical Manager for implementation of the Exchange service
- Paul Davis – Deputy Head of Learning Technologies Group and responsible for the SharePoint Project, specifically training and communications
- Paul Jeffreys – Director of IT (attended temporarily)

3. Workshop Format

The workshop began with an overview of the BIILS Project and its findings and framework. This was followed by detailed information relating to costing ICT investments. Corresponding activities were then carried out with the group to identify a suitable timescale for analysis, all stakeholders and all costs relating to devolved and central services. The BIILS Team then presented detailed information relating to the benefits of ICT investments and their evaluation, which was followed by activities to identify a range of benefits related to centralised provision at Oxford, to weight them according to importance and to rate them for devolved and centralised provision. Following this, the team discussed how best each of the benefits could be evaluated in practice in relation to the BIILS Project Framework. A sum up and recommendations for future work were discussed at the end of the workshop.

4. Cost Benefit Analysis

This section contains the cost benefit analysis (CBA) carried out as part of workshop activities at Oxford University Computing Services.

4.1 Context of CBA

Oxford University Computing Services is establishing a cost model as part of the FSD Projects as it is a particular area of interest for the University. IT Services are currently funded by ‘top-slicing’ funds from departments, however it is felt that the method for calculating the level of top-slicing could be improved. Although cost issues and some costs figures were explored as part of the workshop, it was understood that the TRAC cost model is being developed in conjunction with JM Consulting and that the BIILS Project support would focus more on the benefits associated with services. Following discussion during the workshop, it was agreed that the University’s new central implementation of Exchange would be analysed in comparison to the previous multiple devolved email systems. This was evaluated as a *Corporate System* using the BIILS Toolkit. A formal process to develop a business case is normally undertaken at the University of Oxford and defines deliverables, timescales and budget. The net present value is also calculated, i.e. the cost of *not* carrying out a project. For larger investments, the project board will assess outcomes against the project business case, for example for the Exchange implementation, customer satisfaction was evaluated at different points and compared. The IT Strategy Committee provides project monitoring and receives project documentation. There is no formal evaluation of ‘success’, rather the projects are managed by exception, i.e. it would be reported if the project did not perform as planned. Peer review is commonly used as is a reflective approach for informal evaluation, e.g. investigating what has been learned and what could have been done differently.

4.2 Timescale for CBA

After discussion, the agreed timescale over which to consider cost-benefit analysis was from April 2008 until end of July 2011 when 22 out of 25 small units are expected to have migrated and 3 out of 5 large units. This includes the ‘change period’ which ran until the end of March 2010 when parallel services had to be run.

4.3 Stakeholders

The group held a discussion to identify all stakeholders of the Exchange implementation, from whose perspective to frame the benefits investigation. The following were agreed.

University of Oxford Exchange Implementation – Stakeholders

The two University units currently migrating (3k users) (Large stake)

All Exchange users (40k users) (Large stake)

All staff (Large stake)

All students (Large stake)

Oxford University Computing Services

Project Board

Collegiate representatives

IT Committee

University Administration (unit migrating in)

Chair of Conference of Colleges

Forum for IT support staff

Head of Alumni Office (small stake)

Alumni (future stakeholders)

4.4 Costs

Note that costing is particularly difficult at the University of Oxford as colleges exist as individual legal entities and have their own finance systems. The costs for the devolved services were estimated, however the Oxford participants felt that the estimates were low. All project costs tabled were collated by the team approximately 18 months previously and include increasing capacity over time and knock-on savings, e.g. staff not spending time on support. Increased costs to the helpdesk are considered negligible. Costs do not include capital replacement of hardware planned for 2013 (5 year maintenance period) as this will probably be replaced as part of a larger replacement cycle.

Note that some costs are moved rather than saved, i.e. resources are feed up rather than the associated costs saved. During the Exchange implementation a trainer was re-allocated to work for the Learning Technologies Group.

4.5 Benefits

The project team then carried out an activity to identify a range of benefits relating to the central implementation of Exchange and weighted them in terms of relative importance. Following this, the team rated each benefit in turn in terms of how well it was delivered by the previous set up and how well it was expected to be delivered by the new central solution. Note that the team referred to a known preference for central services from units that they have consulted with. Some benefits were unexpected and have maximized the positive impact of the new implementation, such as the use of Exchange's global address list as a University telephone directory – included as 'Improved functionality'. Finally, the team discussed how best to evaluate expected benefits in terms of the 8 BIILS Evaluation Methodologies.

4.6 Cost Benefit Analysis Outcome

Costs

	Project Cost	Previous Annual Cost	Ongoing Annual Cost
One off 'project' costs			
Payroll			
Consultancy			
Hardware (incl 5 year maintenance)			
Additional maintenance			
Licences			
Consumables			
Staff related costs (mostly training)			
Energy costs (power and cooling)			
Also some other subsidies:			
E.g. Staff costs			
Opportunity costs			
Other services losing out			
Recurrent Costs			
Including staff			
Devolved services (25 small)			
(5 large)			
Central open source email system			

Note that cost figures are confidential and have been removed

Benefits

BENEFITS	Weighting	Rating (Before)	Rating (After)	Evaluation Activities	Score Before	Score After
Skills complement of staff	6	2	5	4. Informal Review 8. External Accreditation	12	30
Central role for OUCS in highly devolved organisation	7	4	7	2. Target Setting 4. Informal Review	28	49
Good vendor relationship	2	0	1	4. Informal Review 5. Investigative	0	2
Reduced duplication and cost	10	2	9	1. Financial Evaluation 2. Target Setting 4. Informal Review	20	90
Increased efficiency and productivity	10	3	8	4. Informal Review 6. Customer-Focused	30	80
Improved resilience and level of service (e.g. Access for mobile devices)	8	5	9	2. Target Setting 4. Informal Review 6. Customer-Focused	40	72
Improved functionality (E.g. Directory, multi-lingual support, calendar, room-booking)	10	3	7	4. Informal Review 6. Customer-Focused	30	70

PR benefit (Keeping pace via high quality corporate system to provide for internal 'customers')	6	3	6	3. Benchmarking 4. Informal review 6. Customer-Focused	18	36
Total Weighted Score					178	429

Cost Benefit Analysis

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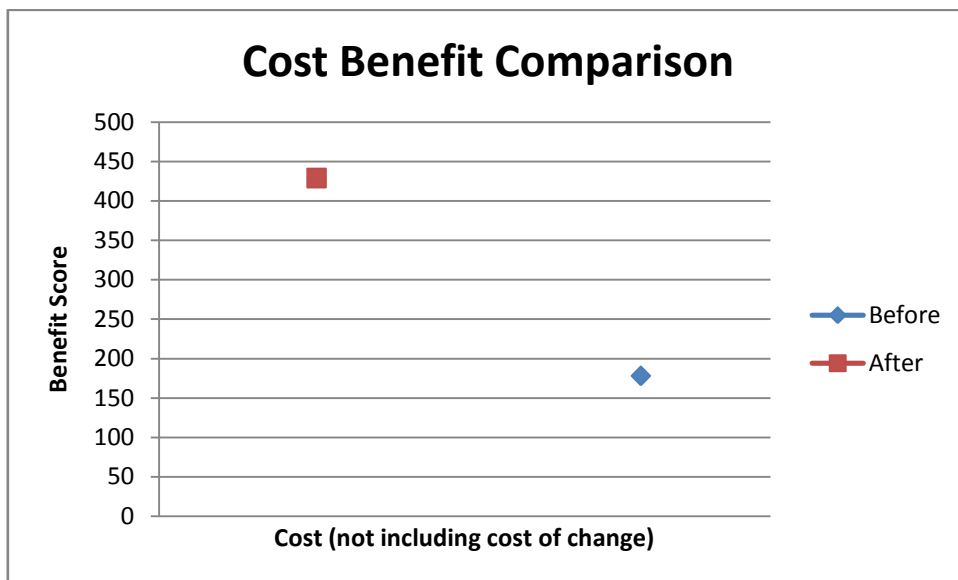


Figure One: Cost benefit analysis using annual costs

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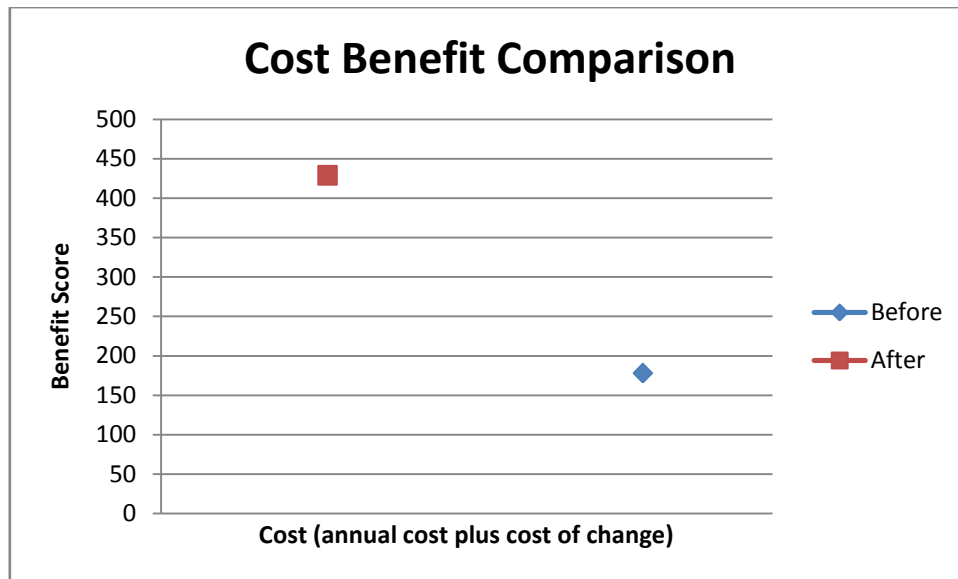


Figure Two: Cost benefit analysis using annual costs plus cost of change

5. Reflection on Cost Benefit Analysis

The outcomes of the day were summed up and reviewed via discussing the following open questions:

- Did the participants consider that all costs had been identified and included?
- Did costs include sensitive information? Taking into account staff grades and political implications, for example changing staff numbers or roles should investment go ahead.
- Have all stakeholder views been represented in the benefits and their evaluation? Who else needs to be involved in future iterations of this exercise?
- Were initial 'hunches' correct?

It was stressed that the day's outcomes, although useful, were intended to be the first steps towards developing a cost benefit analysis for the University's investment. The process is intended to be iterative and other opinions may need to be represented when applying values to benefits weightings and ratings. The Oxford participants did highlight that IT is often disconnected with decision-makers. The Oxford participants also felt that there was a tendency to focus on costs rather than weigh up benefits. Although an iterative process the team were cautioned against going through iterations making changes to achieve the 'desired' result.

The difference in recurrent costs for the 'before' and 'after' scenarios is not hugely significant, however the Oxford participants agreed that even if no cost saving was evident, the change is still justified by the benefits being realised and in response to University department/unit preferences. Note also that all figures have still to be reviewed and refined.

6. Reflection on Workshop and Process

In order to consider the value of the workshop and determine to what extent it had been worthwhile, the group considered what they had gained from the session, what (if anything) they would do differently and why, and what was useful/not useful and why.

The group felt that it was useful to go through a formal process to investigate benefits. They felt that a broader range of stakeholders could be consulted and discussed potential future work, i.e. *What happens now?* Participants stressed the importance of recognising that the exercise was a proof of concept, but that many more stakeholders would need to be involved to take it forward and that this was likely to affect the benefits and the weightings. There was discussion regarding the potential of attaching corresponding cost figures to the benefits based on their value and also useful discussion regarding maintaining the benefits once they are realised to ensure that they keep being realised to the University's advantage. They also felt that they did not identify some negative benefits that may arise, for example having to cater for multiple platforms.

7. Future Work

The BIILS Project Team recommended that further iterations of the cost-benefit analysis would be required for the central provision of Exchange Vs devolved provision of email; the figures could be refined with more stakeholder views, and more detailed or additional information. In particular the figures for the devolved services have been identified as low estimates and there are other missing costs, however as previously reported, a full costing investigation will be undertaken with JM Consulting as part of ongoing project work. These costs, once collated, should be combined with the benefits identified as part of the workshop for a more accurate analysis.

If appropriate, similar cost-benefit analysis could be applied to the other investment related to the Flexible Service Delivery Projects; the University's SharePoint implementation. This analysis would take a different form as there is no previous provision for comparison.

BIILS Project Case Study 3

Principles in Patterns Project

Institution	University of Strathclyde – PiP Project
Date	7 June 2010
Background	<p>The PiP (Principles in Patterns) project² is a £1M project partly funded by JISC under its <i>Institutional Approaches to Curriculum Design</i> Programme.</p> <p>The PiP project is developing an on-line tool to improve the efficiency of course and class approval processes at the University of Strathclyde and aims to enhance the quality of educational designs that result from these processes and to ensure that course and class provision is aligned with institutional policies and strategies.</p> <p>The PiP project is jointly led by Learning Services and the Centre for Academic Practice and Learning Enhancement (CAPLE) at the University of Strathclyde. PiP began in September 2008 and will submit a final report to JISC in May 2012.</p>
Evaluation Focus	<p>The PiP Project is in the process of reviewing its project description and its evaluation strategy. The BIILS workshop was held to formally revise project benefits and help formulate a strategy for evaluating them. The benefits analysis carried out included direct project benefits, unexpected benefits so far and also ‘aspirational’ benefits; those perhaps not identified as part of justification for project funding, and not required to be realised for project success, but which nevertheless are advantageous to stakeholders and have or will result from the project work being carried out.</p>

² www.principlesinpatterns.ac.uk

1. Workshop Aims

PiP Project – To provide a focus for project evaluation; to identify potential benefits of the PiP Project development and to plan methods of rating benefits and evaluating if and to what extent they are being achieved.

BIILS Project at Strathclyde – To field test the BIILS Project evaluation toolkit by using it to inform an evaluation workshop with the PiP Project Team.

The project costs for the PiP Project have already been defined, however it was stressed that *value for money* can only be assessed in terms of benefits derived from this investment; unless benefits are defined and quantified then no evaluation can be carried out on how the PiP project has made improvements for its stakeholders.

2. Attendees

The workshop was run by members of the BIILS Project Team from the University of Strathclyde:

- Caroline Breslin, Principal Innovation Officer/BIILS Project Manager
- Diane McDonald, Head of Innovation Services and Projects/BIILS Project Director

Participants were from the PiP Project Team at the University of Strathclyde:

- David Nicol – Project Director
- Catherine Owen – Project Manager
- Donna Cullen – Project Analyst
- Dariusz Jabrzyk – Technical Developer
- Jim Everett – Technical Manager

Note that although Diane McDonald is also a co-director for the PiP Project, she participated in the workshop on behalf of BIILS.

3. Workshop Format

The workshop began with an overview of the BIILS Project and its findings and framework, and was then followed by more detailed information relating to the benefits of ICT investments and their evaluation. Two workshop activities were carried out with the group as a whole; the first to identify a range of benefits related to the PiP project, and the second to identify the means by which these benefits could be evaluated. A sum up and recommendations for future work were forwarded to the team following the workshop due to time constraints on the day.

4. Benefits Analysis

This section contains the benefit analysis carried out as part of workshop activities for the PiP Project at the University of Strathclyde.

4.1 Context of Benefits Analysis

The focus of Case Study 3 was the PiP (Principles in Patterns) Project being conducted by a project team at the University of Strathclyde; a £1M project partly funded by JISC under its *Institutional Approaches to Curriculum Design* Programme and running from September 2008 until May 2012.

The PiP project is jointly led by Learning Services and the Centre for Academic Practice and Learning Enhancement (CAPLE) at the University of Strathclyde and has the following aims.

- To develop an on-line tool to improve the efficiency of course and class approval processes at the University of Strathclyde.
- To enhance the quality of educational designs that result from these processes.
- To ensure that course and class provision is aligned with institutional policies and strategies.

The PiP Project is in the process of reviewing its project description and its evaluation strategy. The BIILS workshop was held to formally revise project benefits and help formulate a strategy for evaluating them. The benefits analysis carried out included direct project benefits, unexpected benefits so far and also 'aspirational' benefits; those perhaps not identified as part of justification for project funding, and not required to be realised for project success, but which nevertheless are advantageous to stakeholders and have or will result from the project work being carried out. The online tool being developed as part of the PiP Project was identified as a 'Corporate System' in terms of the BIILS Framework; intended to be used for standardisation and to be interoperable with other corporate level systems at the University. The BIILS Project team also considered that it could be jointly classed as a 'Teaching and Learning Technology' as it is also intended to be used for the generation of ideas (such as learning outcomes), to provide exemplars and examples of good practice, quality control and review mechanisms. The system is intended to focus on the design aspects of curriculum development, therefore the BIILS Project team considered that many of the indicative benefits identified by BIILS for teaching and learning technologies would apply, as well as those identified for corporate systems. In addition to considering the benefits of the PiP online tool, the focus of the workshop was widened to encompass *all* project benefits; not just those relating to the tool as an 'ICT investment'.

4.2 Timescale for Benefits Analysis

The agreed timescale over which to consider the benefits analysis was the full project timescale – from September 2008 until May 2012, but with recognition that some benefits may be identified that will not be realised until after the project end date. Note that this timescale includes a testing and dissemination phase that runs for the last 9 months of the project.

4.3 Benefits

The group conducted 2 activities as a whole; the first to identify a range of benefits relating to the PiP Project, and the second to identify the means by which these benefits could be evaluated. The evaluation was considered in terms of the eight types of evaluation identified by the BIILS Project and included in the BIILS Framework. (Financial Evaluation, Target Setting, Benchmarking, Informal Review, Investigative, Customer Focused, Compliance, External Accreditation)

Benefits were identified by examining each of the project ‘activities’ in turn and discussing the actual benefits realised so far as well as potential benefits which may be realised in the future. The results of these two activities are shown below.

Activity – Whole Project Perspective

Benefit	Evaluation Method
Contribution to University Strategy; demonstration of how an improved curriculum design and approval process can help to deliver the vision of ‘One Strathclyde’	6. Customer-Focused Review of project with internal stakeholders

Activity – Baselining and Stakeholder Engagement

Benefit	Evaluation Method
Better understanding of curriculum development and approval processes	The following evaluation methods apply to ALL activities listed in the left column
Uncovering of frustrations and exposure of inefficiencies with current system (expected but full extent was unknown)	3. Benchmarking Internal benchmarking comparing current and potential processes
Raising awareness of project and aims	4. Informal Review
Demonstrating solutions and possibilities (non-technical)	Informal review with project team and key stakeholders to assess effectiveness of baselining and stakeholder engagement has been conducted as part of project
Improved networking and communication	
Providing an impetus for change	5. Investigative PiP is considered to be partially investigative in nature, i.e. begin the process of review in order to discover issues and benefits 6. Customer-Focused Canvassing of stakeholder opinion 7. Compliance Compliance with University and regulatory body procedures for curriculum development and approval (E.g. The Enhancement Led Institutional Review)

Activity – Development of Online Tool for Curriculum Development and Approval

Benefit	Evaluation Method
Provision of framework for developing the tool; a toolkit for others to exploit	4. Informal Review
Proving concept and tool to demonstrate potential for enhancement	The following evaluation methods apply to ALL remaining activities listed in the left column
Illustration of potential further benefits, e.g. improved efficiency, ease of use, etc.	3. Benchmarking Internal benchmarking against previous practice
Already realising smaller benefits of better practice from review of current practice and demonstrating potential for change	4. Informal Review Informal review with project team and key stakeholders to assess online tool
Demonstration of a functional and supported central system for curriculum design	5. Investigative PiP is considered to be partially investigative in nature, development, test and pilot use of the tool will uncover issues and benefits
Demonstration of provision of transparency and audit trail	6. Customer-Focused Canvassing of opinion from pilot users of online tool

There was also discussion relating to different aspects of the benefits from the online curriculum development and review system; that some benefits would be more simple to demonstrate than others. For example it would not be difficult to prove that an automated system with an online form is more convenient and easy to use than the previous paper-based system, however it would be much more difficult to demonstrate an improvement in course content and quality.

Activity – Development of Revised Approval Questions and Support Material

Benefit	Evaluation Method
Illustration of potential (aspirational) benefits via revised approval questions, such as better alignment of class and course provision with strategy and deeper reflection of curriculum design.	3. Benchmarking Internal benchmarking against previous practice
Illustration and proof of advice for curriculum development via exemplars and other support material	4. Informal Review Informal review with project team and key stakeholders to assess online tool
	5. Investigative PiP is considered to be partially investigative in nature; development, test and pilot use of the tool will uncover issues and benefits
	6. Customer-Focused Canvassing of opinion from pilot users and via workshops Note that further customer-focused evaluation would also be carried out if new developments were implemented

Activity – Dissemination

Benefit	Evaluation Method
Demonstration of new ideas and tools for use in the sector with potential to make outputs available for sector-wide use	2. Target Setting JISC's approval with reference to project plan
Raise the profile of the University of Strathclyde; improved PR	6. Customer-Focused Reviewing citations of appropriate publications
Raise the profile of the project team	

5. Reflection on Benefits Analysis

Following the workshop the PiP project team was asked to reflect on the benefits analysis carried out via the following questions.

- Do you feel that all potential benefits were identified, including *unexpected* (so far) and *aspirational* (possible future) benefits?
- Have all stakeholder views been represented in benefits/evaluation - who else needs to be involved in this exercise?
- Were initial 'hunches' correct?

One member of the project team commented that aspirational benefits could have been included more; that it would have been useful to look beyond the remit of the project and project politics in more depth to consider future possibilities and 'nice to have' benefits, especially as the project scope had initially been very wide anyway. This would have involved thinking beyond the project horizon more; and beyond a small number of project objectives, in order to fully explore.

One team member felt that identification of benefits had been somewhat reserved due to a perceived danger of promising too much and a corresponding requirement to manage expectations and commented that perhaps this was due to institutional constraints.

Although the team tried to represent all project stakeholders, they felt it would perhaps be useful to include the University's Governance, Management and Policy Team in the future who represent the institution's strategic interests.

It was stressed by the BIILS team that the day's outcomes, although useful, were intended to be the first steps towards analysing the benefits of the PiP Project. The process is intended to be iterative and other opinions may need to be represented.

6. Reflection on BIILS Workshop and Process

In order to consider the value of the workshop and determine to what extent it had been worthwhile, the group considered what they had gained from the session, what (if anything) they would do differently and why, and what was useful/not useful and why.

The PiP team report that the exercise was useful and would be further developed as part of project evaluation, for example weighting the benefits relatively in terms of importance. One team member commented that just because it is difficult to put figures on benefits, this does not mean that they should not try.

Considering benefits in terms of project activities was considered useful; that this use of practical activities encouraged different thinking rather than re-visiting the project aims and objectives to derive the benefits.

It was interesting to note one of the project director's comments that the discussions on the day were insightful but that this documentation has not been able to truly capture this insight. This strongly supports the conclusion that the usefulness of the BILS Toolkit is to frame and support the *process* of evaluation for institutions.

7. Future Work

It is worth noting that the scope of the workshop covered only the project itself. Although 'aspirational' benefits were discussed, these will only have the opportunity to be realised and require evaluation if the project outputs are embedded at the University post-project. This was discussed at the workshop and the informed judgement (subject to final project conclusions) is that the project *will* recommend the developments be taken forward. In this case, the project will have to develop a robust business case for continuation and embedding of the project system, materials and processes at the University of Strathclyde. Full costs would have to be investigated; including recurrent annual costs as well as the cost of change.

Future work recommended for the PiP Project was as follows.

- Further iterations for benefits evaluation; refinement of the existing list with more stakeholder views and possibly weighting of benefits with relative importance to prioritise project and future work.
- Development of a *Benefits Review Plan* to ensure that all benefits identified are evaluated in the future, even those that may not be realised until after the project has concluded. The *What?* and *How?* of the project benefits were included in the workshop, however the *When?* And by *Whom?* must still be addressed, and a mechanism for reporting should be identified, particularly if the project board will not exist by the time some benefits are due to be realised.

In addition, if recommending that PiP developments be taken forward and embedded at the institution once the project concludes, a business case for this would have to be developed. It is recommended that this would include a cost-benefit analysis to compare any proposed new 'PiP' solution with the status quo (and possibly with other alternative options) in order to provide justification. This will involve:

- Identification and analysis of benefits to all stakeholders; weighting the benefits relatively according to importance and also rating them for each option according to how well they would be expected to deliver each.
- Full cost analysis to establish the cost of change and the potential change in recurrent costs

Information of costing was also provided to the project team to supplement the benefits information provided on the day of the workshop.