CNL Handbook
Guidelines and Resources for Costing Courses using Activity Based Costing
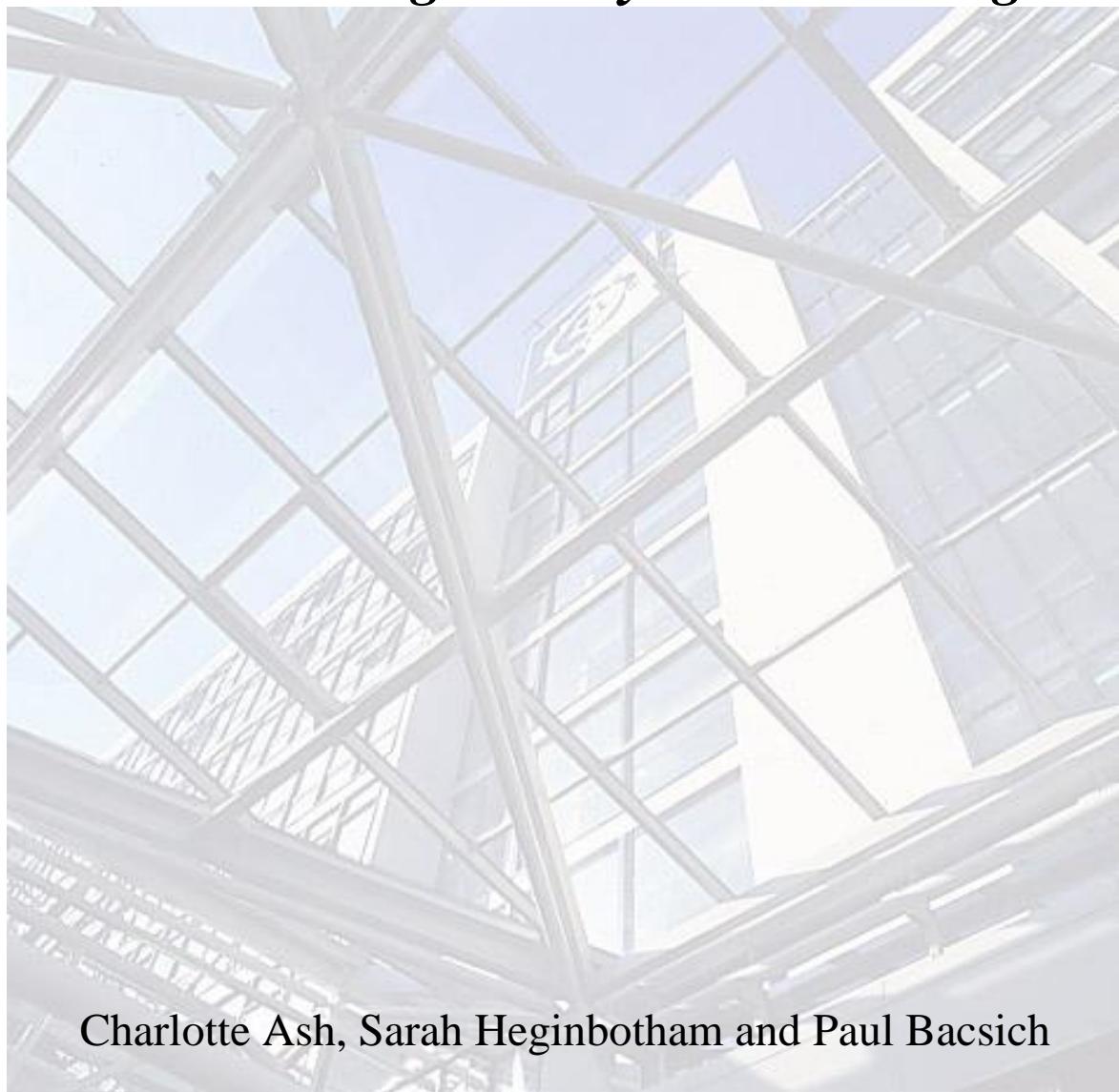
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The JISC Committee for Awareness, Liaison and Training (JCALT) addresses the
human and organisational issues of deploying C&IT within HEIs. Its parent body, the
Joint Information Systems Committee (JISC), is the strategic advisory committee
working on behalf of the funding bodies for higher and further education (HE and FE)
in England, Scotland, Wales and Northern Ireland. It also works in partnership with
the Research Councils.

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Introduction

Costing of higher and further education has come to the forefront of many academic and managerial debates over the last two years. This trend is apparent on an international basis, at least across the English-speaking world. There is a 'triple challenge' of correlating (1) the need to meet increasing demand for places from students on (2) ever-reducing budgets whilst (3) maintaining or even increasing quality.

The reasons behind this change of heart are easy to identify.

Information and Communications Technology (ICT), linked to social change, is allowing a much larger and more diversified group of learners to gain access to higher education. Managed and virtual learning environments (MLEs, VLEs), electronic and virtual campuses, online learning and technology-enhanced education are all familiar terms; indeed e-learning, the latest in-phrase, no doubt of equally limited life, is rapidly entering the vocabulary.

Collaboration, both within institutions and between different institutions, even on a multinational basis, and across other sorts of boundaries, such as with industry or government, is becoming increasingly common for teaching as well as research.

While universities are still the main providers of higher education, other providers are becoming a threat to this dominance, especially with the use of ICT. Thus 'traditional' universities are facing ever-increasing competition: from virtual universities, the non-educational sector (corporate universities) and institutions abroad.

An increasing number of externally funded research projects are taking place, mainly with European funding. These projects usually have a complex reporting procedure, including the provision of a high level of detail on expenditure. In addition, the UK Research Funding Council are driving for greater 'transparency' of costing in institutions: universities are being requested to track all funding received for teaching and research and establish that it has been spent on appropriate work. It is hoped that this will counter any allegations of 'bleed' from research to teaching, or vice versa.

All the above issues are encouraging the UK higher education sector to look more closely than it has been used to at the costs of providing its courses – since students, especially at post-graduate level, are attracted by good quality education at a price which seems 'best value' to themselves or their sponsors.

This document forms the Handbook of Guidelines and Resources for the second phase of the 'Costs of Networked Learning' project, funded by the Joint Information Systems Committee (JISC) and run by Sheffield Hallam University. CNL2 builds upon the CNL1 work published in October 1999. This Handbook, with its Guidelines, Briefing Sheets, and attached Resources, both explains how we conducted our ABC trial and will help you in running your own. However, this Handbook is not a teaching aid or step-by-step guide; it does not allow you to undertake the process of ABC yourself – for that you will need expert help.

The following chart gives an illustration of the ABC process undertaken by the team (boxes with a double outline indicate exercises which require the involvement of people outside the study team):

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          ┌────────│   1. Senior         │─────────────────────┐
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┌───────────────────┐      ┌───────────────────┐               │
│ 2. Process /      │─────▶│ 3. Create Activity│               │
│ Activity Workshop │      │    Dictionary     │               │
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│ 5. Complete       │◀─────│ 4. Check and Amend│               │
│ Activity          │      │ Activity Dictionary│              │
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          │          │    │    Analysis        │
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│ 8. Activity       ││───▶│ 9. Driver         │
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│ 10. Cost of       ││───▶│ 11. Model Design  │◀──┐
│ Quality Workshop  │─────▶│     and Build    │
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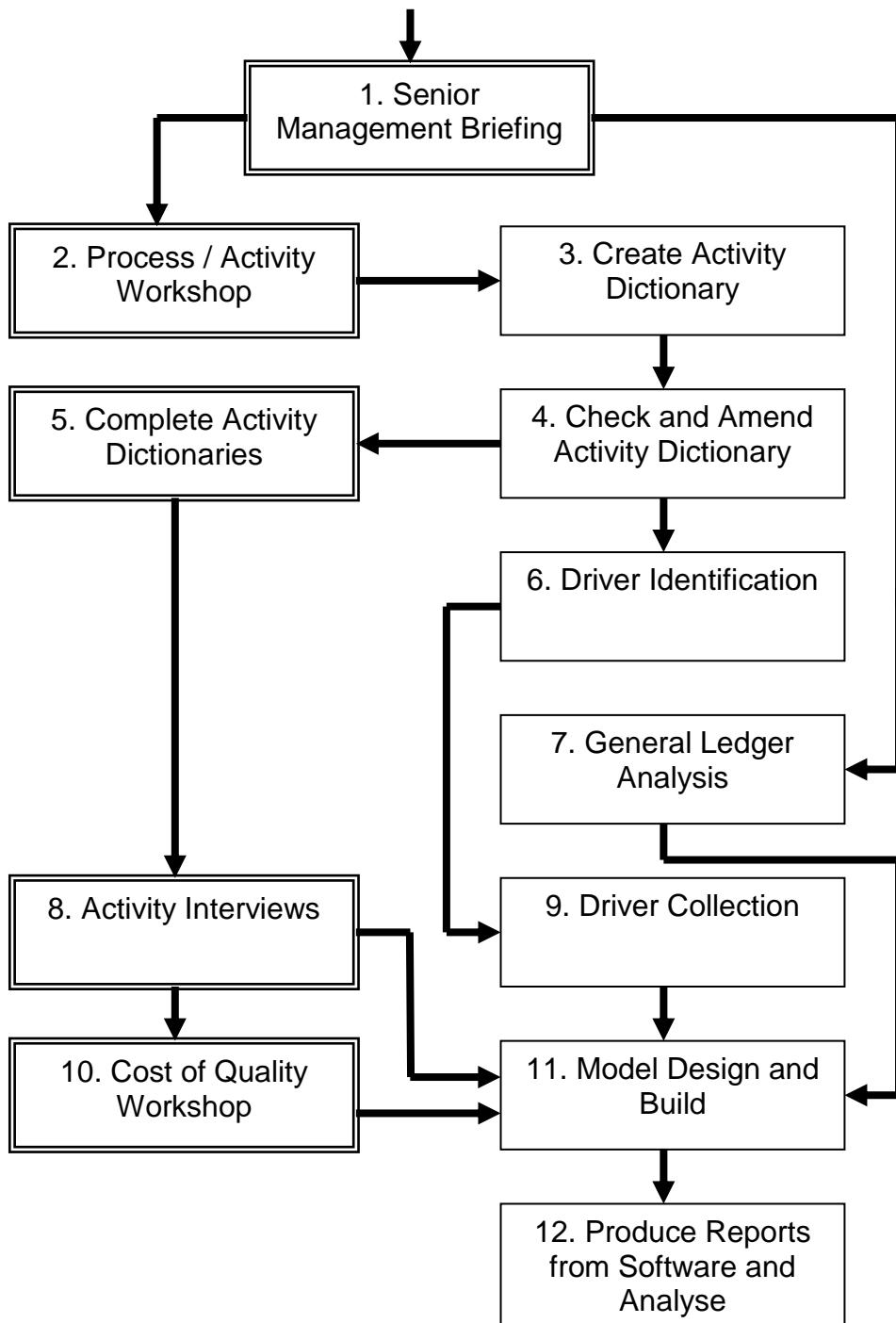
Flow Chart to show the Activity Based Costing Methodology trialled by the CNL2 team

ABC was developed as an alternative costing methodology by Robin Cooper and Robert Kaplan of the Harvard Business School during their research into product costing in the manufacturing industry (Cooper and Kaplan, 1988). Cooper and Kaplan recognised that, "the traditional costing model distorted product costs by assuming overhead costs are driven by the volume of goods produced via surrogates such as direct labour hours, machine hours or direct material expenditure. Thus products with low and high volume receive the same average overhead cost allocation per unit" (Cleary, 2000).

Put simply, ABC acknowledges that the business of any organisation can be broken down into a number of discrete activities that often cross departmental boundaries. It costs a certain amount of money to perform each of these activities and the majority of the organisation's costs can easily be assigned to one, or in proportion to a number, of these specific activities. When the total cost for each activity has been established, this cost can then be distributed to the products or services (cost objects) in relation to their consumption of that activity. Thus, each product or service is only assigned costs for the activities that go into producing it, giving an accurate picture of each product or service true cost. Under ABC, costs that are not directly linked to the cost object (a course, for example) can be treated as business sustaining costs or idle costs (the vice-chancellor's committee, for example).
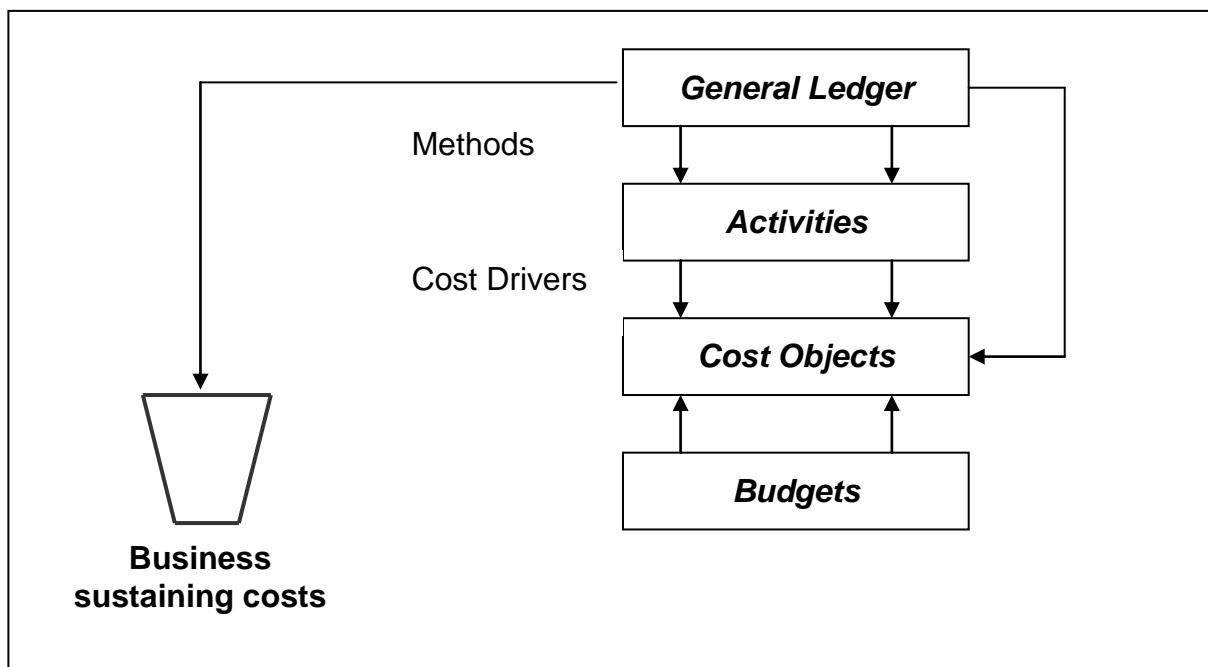
For example, at the University of Rother Bridge an ABC exercise is taking place. Costs are taken from the University's General Ledger and distributed to three places: to Activities (groups of tasks undertaken by staff in the University) using Methods (a Cost Driver operating in this place); directly to the Cost Objects (in this case, individual courses run by the University); or, finally, directly into the Business Sustaining Costs bucket (those costs, such as the Vice-Chancellor's salary, which can not realistically be attributed to the cost object), these costs are then evenly reallocated across all Cost Objects. Costs which the University has distributed to Activities are then attributed to the Cost Object using Cost Drivers (for example, the number of students applications per year per course). The University can now see how much its courses cost, they can also compare this to the budgeted information by feeding in this data at this stage.

It was important to identify a suitable ABC software provider. It was recommended in our first report that it was important to "locate and evaluate finance software suitable for the 'new era' of Activity Based Costing in HEIs" (p2) and also directly by the DETYA and Ernst & Young (2000) report:

> "An institution embarking on the development of an ABC model for the first time should look at purchasing a specialised software package to support this project. The selection and purchase of a specialised ABC modelling tool will reduce the time associated with the model development and enhance the quality of the outcomes reported."

There are a number of ABC software suppliers you may wish to consider, below we provide their contact details and an outline of their company and product.

Baum Hart & Partners

19a High Street	Telephone and Fax 01453 792220
Stonehouse	
Stroud	E-mail bhp@baumhart.co.uk
Gloucestershire	World Wide Web
GL10 2NG	http://www.baumhart.co.uk

Baum Hart & Partners is a medium-sized company providing integrated software systems, consultancy and training services to the Public Sector.

ABC for HE is their comprehensive financial planning and management tool, designed specifically for the Higher Education sector. It is a user-friendly PC-based system created for the industry-standard Microsoft Access Database and complementing other financial control systems such as the General Ledger. It allows universities to meet UK Transparency and Accountability Review requirements and evaluate scenarios based on changing financial and non-financial factors. Financial and non-financial data can be imported to the modules and it is possible to export all data and output reports in a number of formats. A similar product, ABC for Education, has been designed specifically for the UK Further Education Sector.

The Baum Hart web site claims that in addition to "the prestigious Hong Kong University" and "the University of Canberra" a number of UK based Universities and Colleges are currently using ABC for Education. However, we have contacted many of the HE organisations and our enquiries show that while purchasing the software implies interest and intent, but does not automatically imply use.

ABM Systems – ProDacapo

Telephone + 61 2 9908 8909	Email gaclarke@abmsystems.com
Fax + 61 2 9908 8919	World Wide Web
	http://www.abmsystems.com/

Sydney, Australia based, ABM Systems is a member of the ProDacapo world-wide firm of performance management specialists with offices throughout Europe and the Americas. Their web site states that, "we specialise in providing performance management solutions to companies, government and non-profit organisations. Our solutions integrate practical concepts to help people develop business plans, track performance, analyse costs and profits, and improve results". ProDacapo is a complete integrated performance management system, facilitating Activity Based Costing, Total Quality Management,

Business Process Re-engineering, Performance Measurement & ISO 9000. ABM Systems claim to have a broad range of clients in Government, Manufacturing, Mining, Finance, Logistics and Service.

ABC Technologies Ltd. – Oros / Easy ABC Plus

UK Headquarters	Telephone 02392 230280
7 The Spinney	Fax 02392 268011
Parklands Business Park	
Forest Road	Email manager.uk@abctech.com
Denmead	
Hampshire	World Wide Web
PO7 6AR	http://www.abctech.com/

The ABC Technologies web site states that "ABC Technologies is, and has always been the leader in Activity-Based Costing and performance management software, services and solutions". The software solution offered by ABC Technologies is Oros® Analytics, which, according to the company web site, "seamlessly integrates activity-based costing/management (ABC/M), performance scorecarding as well as provides a bridge integration with SAP® inter-enterprise solutions". The web site also claims that there have been 4,300 installations of the Oros software in 73 countries, no examples of implementations within the traditional education sector are stated.

Armstrong Laing plc – Metify ABM

UK Headquarters	Telephone 01565 687000
25 King Street	Fax 01565 750030
Knutsford	Email info@armstrong-laing.co.uk
Cheshire	World Wide Web
WA16 6DW	http://www.armstronglaing.com/

The Armstrong Laing Group was established in 1990 providing support and consulting for various Management and Executive Information Systems. One year later they released their first activity based costing software solution. The web site states that, "Metify ABM is the cornerstone of activity-based management, pinpointing your most profitable customers, products, regions or channels, as well as uncovering the costs of individual business processes that may need to be improved in order to drive higher profit levels". The web site strongly promotes the concept that consultants will work with clients from proof-of-concept to full implementation highlighting the full scalability of the product. Although no examples of implementation in education exist, the web site states that 750 implementations have taken place world-wide; 19 case studies exist online including service companies and county councils. The software package also includes a bridge to incorporate existing information and an extensive reporting facility.

Our reasons for choosing Armstrong Laing were that the company:

- were willing to enter into true partnership;

- had experience in public sector;

- offered user friendly – approachable software;

- had no previous experience of implementing ABC in education and therefore were willing to test their standard industry methodology;

- were willing to help investigate and work necessary adaptations to the process to make it work in HE.

Senior Management Briefing – Briefing Sheet Number 1

Introduction

The Senior Management Brief really kick-starts this whole process bringing together all of the key stakeholders, the project team and the consultants. The reasoning behind the project is outlined, key stages and activities explained and everyone is made aware of their expected contribution and the potential outcomes of the exercise.

Pre-required tasks

There are no pre-required tasks before undertaking this activity.

Guidance

All top management for the section you are intending to cost should be invited to the Senior Management Briefing. Numerous studies show that senior management support is vital if any ABC project is to succeed.

This is the first stage of the methodology and as such sets out to explain what Activity Based Costing is; outline the potential benefits of undertaking the study; the involvement expected from certain groups of people; and forecasts probable outcomes. Although the participants are likely to have minimal input to the process their support is vital – if you can convince them that ABC is a worthwhile exercise then others will follow. If you instil a positive view of the project with senior managers at the beginning of the project then these inevitably filter down; it is also particularly useful to have senior managers on-side when it comes to looking at specific financial information later in the project.

It takes about an hour to comprehensively cover this topic allowing for the inevitable questions and points of clarification.

Resources

Tips for your presentation.

Senior Management Briefing – Resource Sheet Number 1

Some tips for your presentation:

- It is important to start this presentation by outlining what ABC is, your reasons for choosing or needing to undertake this study, what is involved in the study and what involvement you expect from your colleagues;

- It is often useful to point out what sort of questions ABC will answer within the context of your own institution or department;

- Most people are not familiar with ABC, so it is important to provide a comprehensive definition, the basic differences between traditional and activity based costing – lots of diagrams and examples also go down well here;

- Please talk your senior management team through the ABC process that you will undertaking so that they understand what you are doing at every stage and why;

- We found it very useful to allow our chosen consultant to deliver this Briefing; she was in a position of experience, had plenty of examples to draw upon and could counter any serious resistance shown.

Process / Activity Workshop – Briefing Sheet Number 2

Introduction

A workshop, usually taking no more than two days, bringing together representatives of all types of employees within the entity being costed (for ease we will refer to this entity throughout as the 'School'), academics, managers, administrators, technical staff and so on. The exercise will attempt to list the processes and activities undertaken by staff within the School.

Pre-required tasks

It is advisable to have undertaken the Senior Management Briefing outlined in Briefing Sheet Number 1.

Guidance

A representative sample of the types of staff employed by the School should be invited to the workshop. It is essential that the workshop participants have between them a full and clear understanding of all the processes and activities involved in running the School and producing its main output (in this case courses).

In terms of definition, a process is an overarching heading which encompasses a number of activities all connected to achieving a single outcome; for example, 'conduct formal assessment' or 'produce the timetable'. An activity is a series of related tasks (being one action carried out by one person at one point in time) that are carried out repeatedly by multiple people; for example, 'prepare exam stationary packs' or 'negotiate room bookings with facilities directorate'. Both processes and activities should, where possible, begin with a verb (a doing word).

To conduct this workshop successfully we recommend having the following things available: flip-chart and pens; white-board and pens; different coloured post-it notes; the SHU Process / Activity List as a guide and a note taker.

1. An informative presentation …

Many of the participants involved in this workshop are not likely to have been present at the Senior Management Briefing and therefore a similar presentation needs to be undertaken at the beginning of the first day. Participants need to understand what you are trying to do and how important their role is. This presentation should also include an explanation of what is going to be achieved over the next two days and how. Because you have people from all levels represented it is important to stress that the contribution of each and every participant is equal and that debate is welcomed. It is especially important to

make very clear what you are setting out to cost (presumably an academic course(s) if you are reading this guide) as this will have an impact upon the level of detail at which the workshop proceeds.

2. Getting to know you, getting to know all about you …

References to 'The King And I' (Rodgers & Hammerstein) apart, it is essential that everyone in the workshop knows each other in order that full and frank discussions can be entered into. It can also be useful to illustrate just how much knowledge and experience is represented by the workshop participants. A good way of doing this is to list on the flip-chart the names of your colleagues present, their main role within the institution, and how long they have been here.

3. Who are your customers?

It is important to remind the workshop participants about what you are aiming to cost before asking them to identify who their believe their 'customers' to be. Possible examples of 'customers' within the higher education environment include: students; employers; parents; funding bodies and society (depending on how widely you wish to approach the issues). This quick exercise focuses the participants upon the problem you are trying to address.

4. Main classification of programmes …

In a similar vein, it often helps to identify within the group what you actually provide to these customers. On the other hand, if time is short this information can be taken from the School web site or prospectus and briefly outlined at the workshop.

5. What processes are undertaken?

It is then necessary to undertake a brainstorming session to identify what the School does in broad terms; the processes it undertakes to deliver its 'products' (identified in step four) to its 'customers' (identified in step three). As a guide, the SHU pilot study identified the following processes during their workshop:

1. Course Planning and Validation
2. Admissions
3. Timetabling and Workplanning
4. Enrolment and Induction
5. Teaching
6. Guidance
7. Assessment
8. Conferment (Awards Ceremonies)
9. Managing Placements
10. Quality Assurance Scheme
11. Technical Support

6. What activities take place within each process…?

Depending upon how your workshop is going you may want to split participants down into smaller groups for this activity or complete it as a full team. Remember that if you do split into groups that the sub-groups should also have a diverse mix of people in them regardless

of the process chosen or assigned. Each group picks, or is assigned, a process to break down into its constituent activities (the aim being to cover as many processes successfully within the time available). The easiest way to organise the recording of this exercise is with a large flat surface, such as a wall, and different coloured post-it notes.

It is important to reinforce that you are looking at all of the activities undertaken, including those which are generally considered to be 'fire-fighting', dealing with problems that ought not to happen and such like. This becomes very important in the later stages of this process.

The resulting list of activities has to be understood by all concerned, so the language and concepts used have to be clear, concise and in a manner that is acceptable to all. This exercise is usually very enjoyable and can really get people involved, active participation and discussion is essential and please remind people that they will be given the opportunity to polish and add to the process / activity listing after the workshop.

Resources

No resources are appended to this Briefing Sheet.

Create Activity Dictionary – Briefing Sheet Number 3

Introduction

The Activity Dictionary is basically a list of all the activities undertaken by staff in the school under the process headings identified during the workshop. The Activity Dictionary is also the primary device for collecting data about how staff within the School spend their time.

Pre-required tasks

Must have completed the Process / Activity Workshop outlined in Briefing Sheet Number 2.

Guidance

This exercise is undertaken by the team with the assistance, where necessary, of the chosen external consultants. All the flip chart papers and sticky notes are taken from the Process / Activity Workshop and typed into a pre-formatted Excel spreadsheet which then becomes the Activity Dictionary.

Resources

The final SHU pilot study list of activities, useful as a guide or checkpoint (a number of processes and activities were added after this exercise was completed and this list represents a full and final list rather than the one reached during the SHU workshop).

Create Activity Dictionary – Resource Sheet Number 3

Develop Strategic Plans		
	STR01	Undertake and contribute to School Business Plan
	STR02	Develop IT strategy
	STR03	Develop marketing strategy
	STR04	Monitor performance against School Business Plan
Understand Markets and Customers		
	UND01	Attend seminars and conferences to find out more about our students
	UND02	Undertake student satisfaction surveys
	UND03	Consult with external organisations (actual and potential employers, sponsors and partners)
Manage Human Resources		
	HRT01	Undertake staff recruitment
	HRT02	Administer, carry out, attend staff appraisals
	HRT03	Undertake disciplinary / grievance / dismissal proceedings
	HRT04	Administer personnel records and payroll
	HRT05	Undertake health, safety and welfare duties
	HRT06	Undertake official trade union duties
	HRT07	Plan and deliver training
	HRT08	Attend training
	HRT09	Plan employee development / training programme
	HRT10	Handle staff transfers
Management Planning & Control		
	MGT01	Deliver and attend information briefings
	MGT02	Prepare for and attend Board of Studies and sub-groups
	MGT03	Attend School management meetings (SST and SOC)
	MGT04	Attend other School meetings
	MGT05	Attend other University meetings
	MGT06	Undertake planning / strategy
	MGT07	Undertake management / supervisory duties
	MGT08	Prepare / manage budgets
	MGT09	Undertake financial reporting / measurement
	MGT10	Undertake non-financial reporting / measurement
	MGT11	Handle student complaints
	MGT12	Open mail and distribute
	MGT13	Service committees / meetings
	MGT14	Undertake general secretarial duties
	MGT15	Undertake technical support
Manage External Relations		
	EXT01	Prepare publicity materials and press releases
	EXT02	Undertake public relations activities
	EXT03	Set up and maintain website
	EXT04	Central marketing costs – campaign and research
	EXT05	Central marketing costs – general
Produce Timetable		
	TT01	Estimate number of students per course and per unit and produce spreadsheet

	TT02	Liase with workplanners and programme team to determine which units need to be timetabled
	TT03	Compile and request accommodation requirements from facilities directorate
	TT04	Negotiate room bookings with facilities directorate when conflict occurs
	TT05	Arrange and attend workplanning meeting
	TT06	Compile and request accommodation requirements for labs
	TT07	Liaise with technical manager to ensure specialist software availability in CMS labs
	TT08	Liaise with unit leaders and workplanners to establish staff availability
	TT09	Produce and distribute timetable
Organise and deliver teaching		
	TEA01	Apportion the work allocation and devise the teaching schedule. Assess and negotiate relevant resources
	TEA02	Write assessment papers and submit for moderation
	TEA03	Develop lesson plans / plan lessons
	TEA04	Prepare teaching materials
	TEA05	Prepare and distribute course guides to students
	TEA06	Publish / photocopy teaching materials
	TEA07	Undertake timetabled teaching including tutorials
	TEA08	Undertake non-timetabled teaching including project supervision
	TEA09	Conduct formative assessment (check student progress)
	TEA10	Update subject knowledge
	TEA11	Prepare distance learning materials – type / format
	TEA12	Issue distance learning materials world-wide
Admit students		
	AD01	Organise and facilitate pre-recruitment activities
	AD02	Handle applications and make decisions
	AD03	Prepare administration systems for student arrival
	AD04	Provision of admissions service by central registry
Enrol and induct		
	E&I01	Generate and post enrolment forms for returning students
	E&I02	Receive, check and handle enrolment forms from returning students. Identify students not to progress to next year
	E&I03	Identify follow up and resolve incorrect / incomplete enrolment forms (returning students)
	E&I04	Plan and organise induction events (NB Induction = Uni-wide, not school only focus)
	E&I05	Participate and conduct induction events
	E&I06	Participate in new student enrolment event (via face-to-face meetings with students)
Assess students formally		
	ASS01	Produce examination papers and assignments
	ASS02	Produce exam timetable
	ASS03	Co-ordinate arrangements for special needs student requirements
	ASS04	Arrange and carry out moderation (internally and externally)
	ASS05	Produce/format examination papers to University guidelines including reproduction
	ASS06	Prepare exam stationery packs
	ASS07	Oversee invigilation (by unit leader)
	ASS08	Receive and receipt course work submissions
	ASS09	Mark exam papers and assignments
	ASS10	Moderate exam results (internal and external)

	ASS11	Collate marks and enter them onto spreadsheet for the assessment board meeting
	ASS12	Attend assessment board meeting(s) (includes dealing with extenuating circumstances), and liaise with external examiners
	ASS13	Issue results to students
	ASS14	Return marked work to students
	ASS15	Counsel and guide referred / deferred / failed students
	ASS16	Process appeals
	ASS17	Provision of exams and awards service by central registry
Guidance (Customer service guidance not subject specific guidance. Does include "Can I change my course to …")		
	GUI01	Prepare and distribute information to allow staff to respond appropriately to student enquiries
	GUI02	Receive and discuss problem / enquiry
	GUI03	Contact third party (including support agencies)
	GUI04	Follow identified solutions to outcomes
Undertake Workplanning		
	WPL01	Determine units to be taught by staff group
	WPL02	Arrange and conduct a one-to-one meeting with workplanner and member of staff to agree workplan and negotiate to determine individual staff research allocation on workplan
	WPL03	Negotiate and finalise unit teams (including selection of unit leader)
	WPL04	Develop individual staff workplans
	WPL05	Arrange appointment of visiting lecturers for unstaffed classes
	WPL06	Liaison between workplanner and timetabler
Manage Students Placements		
	MP01	Input students information (including preferences) onto selection software and set up student files (with CVs and references)
	MP02	Prepare placement information for students
	MP03	Match groups of students to placements and advise via notice boards
	MP04	Receive placement applications and send to employers
	MP05	Arrange interviews on behalf of employers
	MP06	Notify successful students (and unsuccessful ones)
	MP07	Allocate tutors to students
	MP08	Visit Students
	MP09	Prepare and distribute information to allow staff to respond appropriately to student queries
	MP10	Receive / discuss and follow through enquiries
Undertake Planning and Validation		
	P&V01	Attend planning meetings and complete the planning approval form
	P&V02	Research the market
	P&V03	Liaise with external agencies where appropriate
	P&V04	Write the syllabus. Plan the units, method of assessment, management of the course / programme etc
	P&V05	Prepare and publish submission document
	P&V06	Attend validation event
	P&V07	Establish unit files
	P&V08	Buy required books and purchase copyright
Quality Assurance Scheme		
	QUA01	Maintain unit files
	QUA02	Complete evaluation sheets and unit action plans (from student evaluation forms and staff / student committee minutes)

	QUA03	Moderate the marking of coursework and exam scripts
	QUA04	Copy a sample of students work
	QUA05	Complete annual quality review form for each course
	QUA06	Liaise with external examiners (includes reading their reports, liaison between course staff and replying to their comments)
	QUA07	Attend quality and validation sub committees, course / programme committees and staff / student committees
	QUA08	Observe others teach
Undertake Research and Consultancy		
	RES01	Develop research proposals and bid for research funding
	RES02	Establish the research projects (includes finding accommodation, induction of new staff etc)
	RES03	Liaison with stakeholders including the University and sponsors
	RES04	Conduct research and business development projects
	RES05	Manage research and business development projects
	RES06	Writing publications (includes textbooks, journal articles, conference papers and book reviews)
	RES07	Prepare reports for the sponsors of specific consultancy / research activities
	RES08	Present at conferences
	RES09	Update knowledge outside specific subject area
	RES10	Evaluate research and business development projects
	RES11	Organise research seminars
	RES12	Developing and maintaining links
Design and Improve Products and Services		
	PRO01	Undertake pilot projects to evaluate and test emerging technologies
Manage SHU Network Infrastructure and Services		
	NET01	Undertake network management and maintenance
	NET02	Upgrade networks in line with new technologies and user requirements
	NET03	Undertake traffic monitoring and performance tuning
	NET04	Manage and resolve network faults in conjunction with CIS
	NET05	Manage and support customer help desk
	NET06	Support SHU conferencing and distance learning facilities
Provide Central Installation and Maintenance Service		
	CEN02	Provide support to and maintain hardware for schools/departments
Technical Support for Teaching and Learning		
	SUP01	Provide student support and advice service (frontline)
	SUP02	Provide student support and advice service (second line)
	SUP03	Provide support for Learning Centre staff and School open access areas (second line)
	SUP04	Assist with academic planning, quality, validation and subject review
	SUP05	Support on-line materials, environments etc
	SUP06	Support academic staff
	SUP07	Support administrative staff
Technical Support for Research		
	SR01	Provide support for research
	SR02	Support research students
Provide and Support Open Access Computing Facilities		
	OAC01	Support and update open access computing facilities (hardware and software)
	OAC02	Provide specialist computing support (CAD, DBMS, Graphics etc)
	OAC03	Manage and support bookable classroom suites

Install and Manage Hardware and Software		
	HAR01	Plan, organise and install PCs, servers and peripherals
	HAR02	Plan, organise and install standard office applications and business packages
	HAR03	Undertake fault diagnosis and fix PCs, servers and peripherals
	HAR04	Undertake fault diagnosis and fix office applications and business packages
	HAR05	Provide local technical support for hardware / software per formal agreement
	HAR06	Carry out hardware inventory and manage assets
	HAR07	Audit and control software
	HAR08	Purchase hardware and software (including looking after the tendering process and lease agreements)
Central Provision of Student Support		
	CPS01	Learning centre
	CPS02	Student services
	CPS03	Recreation services
	CPS04	CIS student support and advice
	CPS05	CIS open access services
	CPS06	Infrastructure management and network services
Facilities Management		
	FM01	Labs
	FM02	Teaching Rooms
	FM03	Offices (administration and academic)
	FM04	Provision of pooled teaching
	FM05	Decant
	FM06	Other general facilities activities
Income		
	IM01	Sales income
	IM02	Miscellaneous income

Check and Amend Activity Dictionary – Briefing Sheet Number 4

Introduction

The draft Activity Dictionary is sent out to all participants who attended the Process / Activity Workshop to check that it is an accurate interpretation of the activities of the School. At this stage additions and clarifications can be undertaken.

Pre-required tasks

Must have created the Activity Dictionary, see Briefing Sheet Number 3.

Guidance

The Activity Dictionary is sent to all participants of the Process / Activity Workshop, we used email for speed, with a covering note asking them to check the list for mistakes and omissions. Once the checked Dictionaries are collected back in, a member of the team can process the changes.

Resources

No resources are appended to this Briefing Sheet.

Complete Activity Dictionary – Briefing Sheet Number 5

Introduction

The list of processes and activities arrived at during the previous exercises has now become the Activity Dictionary, the main information gathering tool in terms of recording time and tasks undertaken. The Activity Dictionary should ideally be completed by each member of staff within the School. This information is then checked during Activity Interview (Briefing Sheet Number 8) and entered into the ABC Model (Briefing Sheet Number 11).

Pre-required tasks

Must have undertaken Briefing Sheets 2-4.

Guidance

It is customary in most industries for the manager of groups and subgroups to complete the Activity Dictionary on behalf of his or her staff and then for these to be combined to give an overall picture. Because of the matrix system of line management at most universities and academic independence, it was decided that within academia all individuals (however we did find that administrative and technical staff could be treated as a group in the traditional manner) would need to complete an Activity Dictionary for themselves (as we were conducting a pilot project we decided to focus on a representative sample of people – it may be that for others this is also a more manageable way of getting the exercise off the ground).

Each individual was visited in person or as a small group to explain how to fill out the Activity Dictionary and to answer any questions. It is useful to start this explanation by outlining how the Activity Dictionary came into existence as many people are very wary of this exercise and for some reason completing something that has been arrived at and approved of by ones colleagues does a lot to alleviate this fear. We recommended that people read through the Activity Dictionary thoroughly for the first time without marking anything to get an overall picture of its contents and structure. On the second reading to mark which activities they undertake during the course of the year (it is necessary to highlight which year people should be referring to). A small number of additional activities can be added at this stage if the participant feels strongly that something important has been omitted (it is the up to the study team to decide whether the new activity is significant enough to be included in the master Activity Dictionary). Only once they are happy that their ticks represent the range of tasks that they personally undertake should they focus on the time they spend doing them. This is broken down into two steps: firstly it is necessary to indicate how often the activity is undertaken; and then to think carefully about how long that activity takes to do. Then using the 'ready reckoner' participants should be encouraged

to workout what percentage of their time each activity consumes. As a general rule activities which account for less than one percent of time overall should be discounted. It is essential to stress that at the end of the exercise all the percentages should add up to approximately 100%. Participants are given a suitable amount of time to complete the Dictionary before, potentially, being interviewed by the team to check for consistency (Briefing Sheet Number 8).

Some people complete this exercise on gut feeling, some consult diaries and similar records and some work at a higher level to begin with – working out roughly what percentage of their time is spent doing teaching related tasks and then looking at how that breaks down – whatever the method employed we have found the results to be surprisingly similar.

Resources

A sample of the SHU pilot study Activity Dictionary.

Complete Activity Dictionary – Resource Sheet Number 5

SHEFFIELD HALLAM UNIVERSITY
ABM ACTIVITY DICTIONARY

Department		**Headcount**	
Section/team		**Full time equivalent**	
Interviewee		**Interview date/time**	

Instructions

1. Please complete questionnaire below, and the attached dictionary (with activity times) before interview
2. Please read through all the activities in the attached activity dictionary and identify those which are performed in your area.
3. Then estimate the total percentage of staff time spent on each of the activities identified above.
4. Total staff percentage for your area should equal FTE*100 (Each whole FTE equals 100%) e.g. it there are 15.75 FTE, the total should be 15.75 * 100 = 1575%
5. Activity staff percent times should be estimated for the financial year August 1999 to July 2000.
6. If an activity is missing, review dictionary again to make sure that you just have not overlooked it.
7. If it really is missing then add the activity at the bottom of the relevant process
8. Put "NEW" in the column headed Sub Process and the description in the column headed Activity Description
9. A ready reckoner of activity hrs/days/weeks to staff percent is given below.
10. Avoid total times of less than 1%.
11. PLEASE, PLEASE do not amend any existing text or heading

Questionnaire

List main responsibilities of your department/team/section

1
2
3
4
5

Describe constraints, hurdles etc which prevent successfully achieving objectives

1
2
3
4
5

TO CALCULATE ACTIVITY TIME %

1	Mark activities undertaken (normally no more than 30 per team)
2	Note time per hour, day, week, etc.
3	Note the frequency e.g. daily, monthly, weekly
4	Calculate % time from table below
5	Multiply by number of staff carrying out the activity

	Per day	per week		per month	per year
READY RECKONER					
	Per day	per week		per month	per year
15 mins	3.4%	0.7%		0.2%	0.0%
1 hour	13.5%	2.7%		0.6%	0.1%
1 day	100.0%	20.0%		4.6%	0.4%
1 week		100.0%		23.1%	1.9%
1 month				100.0%	8.3%

WHAT TO DO NEXT

1. If you need any assistance with completing the activity analysis please contact _____.
2. If possible please hand completed document to Project Manager before your interview.
3. Bring the completed dictionary to the ABC interview where any outstanding queries will be addressed.

SHEFFIELD HALLAM UNIVERSITY
ABM ACTIVITY DICTIONARY

DEPARTMENT		**HEADCOUNT**			
SECTION/TEAM		**FULL TIME EQUIVALENT**			
INTERVIEWEE		**INTERVIEW DATE/TIME**			

Seq. no	Sub Process	Act code	Activity Description	Tick Activity	Daily	Weekly	Monthly	Yearly	Percentage Time
	Develop Strategic Plans								
		STR01	Undertake and contribute to School Business Plan						
		STR02	Develop IT strategy						
		STR03	Develop marketing strategy						
		STR04	Monitor performance against School Business Plan						
	Understand Markets and Customers								
		UND01	Attend seminars and conferences to find out more about our students						
		UND02	Undertake student satisfaction surveys						
		UND03	Consult with external organisations (actual and potential employers, sponsors and partners)						
	Manage Human Resources								
		HRT01	Undertake staff recruitment						
		HRT02	Administer, carry out, attend staff appraisals						
		HRT03	Undertake disciplinary/grievance/dismissal proceedings						

Driver Identification – Briefing Sheet Number 6

Introduction

A simple but essential exercise to identify individual divers of costs present within the School.

Pre-required tasks

It is essential to have undertaken Briefing Sheets Numbers 2-5.

Guidance

Participants of this event should be the project team (whom we assume to be the ones collecting the data), the consultants and, if appropriate, other people who may have a greater appreciation of what information is available.

This is a brainstorming session to determine appropriate and available cost drivers. A cost driver causes change in the consumption of a resource; for example, the number of enrolled students is a commonly used cost driver as changes here can greatly influence the amount of resource used within the School.

Resources

Final list of SHU pilot study drivers (this is not the list of potential drivers identified but those which we actually used during the exercise) and a table illustrating which cost drivers were used for different activities.

Driver Identification – Resource Sheet Number 6

Cost Drivers Identified (# = Number of…)

Applications/ # Offers/ # Expected Students (undergraduate)

Assignments by Year

Share of costs evenly across all years for all courses

Share of costs over all distance learning courses by year

Assessment Boards by course by year

Exams by course by year

Offers made to applicants by course (year 1 only)

Placements by course by year

Share of costs over all postgraduate courses by year

Projects by course by year

Projects by course by # enrolled students by year

Returning students by course by year

Students on placements by course by year

Placements arranged by course by year

Teaching hours by course by year

Units by # students by course by year

Units equivalent to 20 points by course by year

Assignments and # exams by course by year

Assignments and # exams by # enrolled students by course by year

Assignments by # students by course by year

Exams by # students by course by year

Enrolled students by course by year

Applications by course by year (year 1 only)

Expected enrolments by course by year

Share of costs over all undergraduate courses by year

Share of costs over all cost objects

Costs allocated direct to research

Direct allocation of miscellaneous costs

Direct allocation of general research activities

Share of costs over all cost objects except distance learning courses

Activity		Activity Type	Product	Customer
ASS05	Produce/format examination papers to University guidelines including reproduction	Cost Object	# Exams by course by year	# Exams by course by year
ASS06	Prepare exam stationery packs	Cost Object	# Exams by # students by course by year	# Exams by # students by course by year
ASS09	Mark exam papers and assignments	Cost Object	# Assignments and # exams by # enrolled students by course by year	# Assignments and # exams by # enrolled students by course by year
ASS12	Attend assessment board meetings (includes dealing with extenuating circumstances) and liaise with external examiners.	Cost Object	# Assessment Boards by course by year	# Assessment Boards by course by year
ASS13	Issue of results to students	Cost Object	# Enrolled students by course by year	# Enrolled students by course by year
EXT02	Undertake public relations activities	Cost Object	Share of costs evenly across all years for all courses	Share of costs evenly across all years for all courses
MP01	Input students information (including preferences) onto selection software and set up student files (with CVs and references)	Cost Object	# Placements arranged by course by year	# Placements arranged by course by year
MP08	Visit students	Cost Object	# Students on placements by course by year	# Students on placements by course by year
QUA07	Attend Quality and Validation Sub committees Course/programme committees and staff/student committees.	Reallocate	Share of costs evenly across all years for all courses	Share of costs evenly across all years for all courses
RES01	Develop research proposals and bid for research funding	Cost Object	Direct allocation of general Research activities	Direct allocation of general Research activities
RES05	Manage research and business development projects	Cost Object	Direct allocation of general Research activities	Direct allocation of general Research activities
TEA02	Write assessment papers and submit for moderation	Cost Object	# Assignments by Year	# Assignments by Year
TEA03	Develop lesson plans/plan lessons	Cost Object	# Units equivalent to 20 points by course by year	# Enrolled students by course by year
TEA06	Publish/photocopy teaching materials	Cost Object	# Units by # students by course by year	# Units by # students by course by year
TEA07	Undertake timetabled teaching including tutorials	Cost Object	# Teaching hours (where each 10 points = 100 hours) by course by year	# Teaching hours (where each 10 points = 100 hours) by course by year

General Ledger Analysis – Briefing Sheet Number 7

Introduction

The Armstrong Laing ABM software that the SHU pilot team opted to use is able to suck information directly from the existing general ledger system used within the University. Obviously, if you chose a different software supplier then this section may well be slightly different.

Pre-required tasks

It is only essential that you undertake the Senior Management Briefing (Briefing Sheet Number 1) before this exercise, but it is advised that you delay this at least until the Driver Identification Stage (Briefing Sheet Number 6) so that you have a more comprehensive view of the overall exercise.

Guidance

The university's general ledger contains all the financial transactions carried out by the university over a particular period of time. The general ledger, therefore, contains all the cost information required to undertake Activity Based Costing.

A copy of the ledger is examined by the consultants and transactions, or groups of transactions, are allocated a 'method'. The method describes how the transaction costs in the general ledger are to be allocated to activities or in some cases to the cost objects (in the SHU pilot study the cost objects were individual courses) directly. Where transaction costs are related to a specific cost object they can be directly attributed (the method is 'cost object'). Other transactional costs will relate directly to activities; for example, travel costs for placement visits would have the method 'direct to activity MP08 – Visit Students'. Thirdly, we have costs which cannot be attributed direct to a cost object or activities and an alternative mechanism needs to be sought. For example, staff undertake a number of duties which will cover a number of activities on a number of courses, their salaries therefore need to be distributed on the amount of time staff spend on those individual activities. In this case the method is 'percentage of staff time'.

These methods are listed in a column added to the ledger and any columns of information in the general ledger not required by the software are deleted. Additional time may also need to be spent checking the consistency of the information contained in the general ledger. For example, cost codes may have been entered incorrectly and it is important to ensure that all zeros are zeros and not Os. The methods should also be consistent – if transactions are to be driven by the same method then the wording and format must be exactly the same to avoid two distinct methods being created in the software. The software accepts data in .csv format so all commas must also be removed and the new ledger information saved as a .csv file.

Resources

No resources are appended to this Briefing Sheet.

Activity Interviews – Briefing Sheet Number 8

Introduction

This exercise checks to ensure that the information contained in the Activity Dictionary is correct. How many people need interviewing depends upon the scale of the overall project. This is also an opportunity to check that any new activities added are significantly different to existing ones and account for a reasonable amount of time.

Pre-required tasks

Essential that the Activity Dictionary has been created (Briefing Sheet Number 3), and that adequate time has been allowed to complete the Activity Dictionary (Briefing Sheet Number 5).

Guidance

Firstly, it is important to ask the interviewee to bring a completed version of their Activity Dictionary with them. It can sometimes be useful if interviewees also bring relevant diaries, timetables or work-plans in case certain points need to be clarified. During the SHU pilot study we also found it useful to attend the interview with a clear understanding of how much teaching the interviewee did during the period in question (this information can be found in the timetable) as this often puts things into perspective and gives interviewees a tangible guide if they are finding the exercise difficult.

Next, ask the interviewee if they filled out the Activity Dictionary for themselves or for a team under their management and check that this concurs with what they were asked to do. Ensure that the FTE figure stated and the total percentage of time add up.

Whether the interviewee filled out the Activity Dictionary for themselves or on behalf of a team, it is essential to ask how they arrived at the percentage figures in the Activity Dictionary. You should feel comfortable that they have used appropriate methods to complete their Activity Dictionaries. For example, when the Activity Dictionary has been compiled on behalf of a team a check need to be made that 50% actually means that the activity would take up half the time of one full-time member of staff.

If you do not have a clear overview of the role of the interviewee, or the team they represent, then it is important to enquire about their role at this stage to enable you to ask pertinent questions later in the interview.

Ask if the interviewee had any problems completing the Activity Dictionary and whether the activities contained within it covered all aspects of their role. If they added any new activities, this is a good opportunity to find out about them and to use your knowledge of the Activity Dictionary to determine whether this is subsumed under an existing activity or whether it is genuinely something that has been omitted or overlooked.

Then to the most important part of the interview. Carefully go through the Activity Dictionary with the interviewee, questioning anything that looks to be incorrect or dubious. Such a lot of this will be based upon your understanding of the role held by the interviewee, and your personal judgement, that you may question your ability to undertake this task. But do not panic, it is usually very clear where people have gone wrong and mistakes are usually generic in nature. During the SHU pilot study we found that a number of people double-counted their time allocating it to two, very slightly, different activities in different sections; your ability to spot this is directly related to your understanding of the activities contained in the Dictionary.

The number of individual activities undertaken also stumped some people. It is important to stress that front-line activities do exist and that some people may have only one or two activities while others, whose jobs are more diverse, may undertake quite a large number of activities but on a less regular basis.

Most importantly throughout these interviews, it is essential that you, the interviewer, remain consistent in your interpretation of activities. If an activity such as 'present at conference' is determined to involve preparing for that conference, do not agree to include it as a separate activity just because one interviewee believes it is.

Explain what will happen with the information that the interviewee has just given you as people are generally concerned at this stage; reassure them that it will be added to Dictionaries from other people and will not, therefore, be distinguishable or traceable.

And lastly, remember to thank your interviewee for their time and co-operation!

Resources

No resources are appended to this Briefing Sheet.

Driver Collection – Briefing Sheet Number 9

Introduction

This exercise follows directly on from the Driver Identification (Briefing Sheet Number 6) and focuses upon collecting together the data required for the cost drivers. The ease of this process will depend upon the specific drivers chosen and whether the information required is easily accessible.

Pre-required tasks

Must have undertaken Briefing Sheet Number 6 – Driver Identification.

Guidance

Fundamentally, the purpose of this exercise is for the team to collect together any information required to assign volume data to their cost drivers for each cost object.

The software chosen by the SHU pilot team allowed for three levels / dimensions of cost analysis: products, customers and channels. The activity costs can be driven to each of these using different cost drivers. Our *product* was individual courses and other cost objects (individual research projects, for example) that made up the work of the School. Our *customers* were types of student (UG, PG, Research, FT, PT, DL). We did not use the third level of analysis, *channels*.

Therefore, each activity has two cost drivers – one to drive the costs to courses (and other cost objects) and one to drive the costs to student types. The same driver is often used to drive costs to both the products and customers.

Resources

An exciting spreadsheet from the software showing cost drivers, cost objects and relevant data.

Driver Collection – Resource Sheet Number 9

Course Title	# COURSES	# POSTGRADUATE COURSES	# DISTANCE LEARNING COURSES	0221 ANALYSIS OF PRINT UNIT RECHARGES	TOTAL NUMBER OF APPLICATIONS	NUMBER OF OFFERS MADE	TOTAL EXPECTED ENROLMENTS/ACCEPTED PLACES	# APPLICATIONS BY # OFFERS # NO OF EXPECTED STUDENTS (UG ONLY)
UNDERGRADUATE FULL-TIME/SANDWICH COURSES								
HND SOFTWARE ENGINEERING Year 1	1							
HND SOFTWARE ENGINEERING 2 YR ROUTE Year 2	1							
HND SOFTWARE ENGINEERING 3 YR ROUTE Year 2	1							
HND SOFTWARE ENGINEERING Year 3	1							
HND COMPUTING (SHU) Year 1	1							

Cost of Quality Workshop – Briefing Sheet Number 10

Introduction

A workshop, usually (but not essentially) attended by those who were involved in the Process / Activity Workshop (outlined in Briefing Sheet Number 2), to ascertain the perceived value of each activity undertaken in the School. This exercise also identifies the 'quality type' of each activity.

Pre-required tasks

Advisable to have undertaken Briefing Sheet Number 9 – Activity Interviews.

Guidance

This exercise usually takes about two hours, but this depends greatly on the number of activities in your Dictionary. Before the event a member of the team needs to produce a copy of the Activity Dictionary with the value attributes across the top instead of time values and a definition sheet. These then need to be copied, the Activity Dictionary is best blown up to A3.

At the event a short presentation is conducted which explains the purpose of the exercise and how it will be undertaken. You may decide to complete the exercise as a whole group or in smaller groups focussing on one or two sections each.

Participants should then be asked to assign a value and a quality attribute to each activity simply by ticking their choice in a matrix. Participants are also asked to consider whether the activity could be automated and again to tick the appropriate column if they believe it to be possible.

After the event the results should be combined, if necessary, and entered into a spreadsheet using a 1 (one) to represent a tick. The file should be saved as a .csv file to enable the data to be transferred into the software.

Resources

Suggested presentation structure, value attribute and quality management descriptors sheet and also sample of SHU pilot Cost of Quality Workshop outcomes spreadsheet.

Cost of Quality Workshop – Resource Sheet Number 10

Some tips for your presentation:

- It is important to stress that ABC / M is not only about costing, it is also a very effective quality management / improvement tool;
- In order to identify non-value adding activities it often helps to offer some examples of things going wrong that can be avoided, such as, double-booked rooms for teaching, dealing with junk email or chasing student fees;
- Remember, process failure occurs when operation deviates from the ideal, sorting the problem and getting back on track can cost unnecessarily;
- Be clear about what you want participants to do – one tick per activity in the Value Attributes column, under CVA, BVA, NVA or support; one in the Quality Management column, basic work, prevention, internal failure, external failure or check; and to indicate whether the activity could be automated;
- The purpose of this exercise is to illustrate where things are going wrong, potentially leading to a reduction in costs without a loss of service and an ongoing measure of process improvement.

Value Attributes

Customer Value Adding

Ceasing the activity would have a detrimental effect on the service provided

Business Value Adding

The activity provides long term benefit to the school / university

Non Value Adding

Ceasing the activity may even improve the service to the customer

Support

An activity that must be done to maintain operations

Quality Management

Basic Work

Normal daily operations representing the ideal process

Prevention

Activities designed to reduce risk

Internal Failure

Failures that originate within the school / university

External Failure

Failures that originate outside the school / university

Check

Activities designed to minimise risk

Automation

Is this activity capable of being automated to reduce the level of manual work involved?

SHEFFIELD HALLAM UNIVERSITY
ABM ACTIVITY DICTIONARY – COST OF QUALITY WORKSHOP

Sub Process	Act code	Activity Description	Value Attributes				Quality Management					
			CVA	BVA	NVA	Support	Basic work	Preven -tion	Internal Failure	External Failure	Check	Auto- mation
Develop Strategic Plans												
	STR01	Undertake and contribute to School Business Plan		1				1				
	STR02	Develop IT Strategy		1				1				
	STR03	Develop Marketing Strategy		1				1				
	STR04	Monitor performance against School Business Plan				1					1	
Understand Markets and Customers												
	UND01	Attend seminars and conferences		1				1				
	UND02	Undertake customer satisfaction surveys	1								1	1
	UND03	Consulting with external organisations (actual and potential employers, sponsors and partners)		1							1	

Model Design and Build – Briefing Sheet Number 11

Introduction

This is the fun part of the project for the project team. This is the stage where all the hard work pays off and you actually start to get some results. All of the information collected over Briefing Sheets 2-10 is put into the software.

Pre-required tasks

It is essential that all the information gained from carrying out the activities in Briefing Sheets 2-10 is complete and available.

Guidance

How the model is designed and built will depend on the software chosen by your institution. By the time we reached this stage in our trial the model design decisions had already been made. For example, the Armstrong Laing software, Metify, supports up to three dimensions of cost objects: Products, Customers and Channels. Two cost object types were identified at the Process / Activity Workshop (Briefing Sheet Number 2) so the decision to only use products (courses) and customers (student types) was made at this stage.

Building the model within Metify was relatively simple. All data had been collated in Excel spreadsheets and by running one macro and saving the files in .csv format they were ready to directly import into the software.

The project team undertook a two-day training course with Armstrong Laing and the model build itself took just four days. The vast majority of information can be directly imported into Metify, other software products may require each transaction to be entered manually which will obviously take much longer.

As the process is likely to be different for different software it is not appropriate to enter into too much detail about how our model was built. Metify is very flexible and although certain relationships must be defined in order to complete calculations, there is no mandatory, detailed sequence of steps which must be followed in establishing a model.

Resources

The accompanying resource shows the stages we followed when building our model.

Model Design and Build – Resource Sheet Number 11

1. Accounts data to Activity Costs

(a) Methods

Methods reflect how activities are 'driving' costs. A common Method is Staff Time %. Other costs may be related to a single activity. The costs of Recruitment Advertising, for example, would be directly assigned to an appropriate Human Resources activity.

(b) Accounts Definition

Ledger Codes against which you hold costs. These would usually reflect the existing coding structure in the general ledger / Chart of Accounts.

(c) Departments

Reflect Departments within the organisation. In our case these were the cost codes in the School. Again, these would reflect the existing coding structure in the general ledger.

(d) Account Costs

These may be a full financial year's cost, or selected periods only.

(e) Methods Values

The values for (a) within each department (c). If department A had a total staff number of 10, then the total for Staff Time % would be 1,000.

(f) Activities Definition

List of activities carried out in the School derived from the Activity Workshop (Briefing Sheet Number 2). These can be grouped into key Processes.

(g) Activities – Department Activity Assignment

Links the Activities (f) to the Departments (c) in which they take place. The same activity may be undertaken in a number of departments and the appropriate assignment must be made to reflect this.

(h) Value Allocations

Gives a value to the Activities (f) using the methods (a) for each Department (c) in which the activity takes place. If, in department A, staff undertake 4 activities equally, then each activity would be assigned a value of 250 for the Method of Staff Time %.

Activity costs can be calculated at this point!

2. Cost Object Definition to Cost Object Costing

(i) Define Cost Drivers

Imports the Cost Drivers (Briefing Sheet Number 9).

(j) Define Products

Imports the list of courses (in our case by year) and the other cost objects identified – such as individual research projects.

(k) Define Customers	Imports the second type of cost object. In our case this was Student Type and because there were few we entered them directly into the software.
(l) Define Channels	Imports the third type of cost object. We did not use this third dimension in our pilot study.
(m) Assign Activities to Cost Objects	Links the Activities (f) to the Cost objects that use them (j, k and l).
(n) Cost Driver Volumes	Gives a value to each of the Cost Drivers (i) for each of the Cost Objects (j, k and l).

Cost Object costing can take place at this point!

3. Cost of Quality and Value Analysis

(o) Cost of Quality and Value Analysis attributes	Imports the Cost of Quality and Value Analysis Spreadsheet (Briefing Sheet Number 10) and assigns the attributes to each activity (f). In Metify, different 'views' can be made of the same activities.

4. Profitability

(p) Enter Revenue Details	Imports the revenue values for each of the Cost Objects (j, k and l).

The profitability of each of the cost objects can now be calculated!

Produce Reports from Software and Analyse – Briefing Sheet Number 12

Introduction

This stage is vital for presenting the results of the ABC implementation. It enables you to pick out the significant findings from the model and present them in a manner suited to various audiences. Once initial reports are produced it is important to validate them by checking with people concerned that the figures appear correct and are made up from the costs they would expect to see. From the validation stage certain changes may need to be made to the model, for example, it may be appropriate to alter cost driver shares / weightings for certain cost objects before the reports are re-run.

Pre-required tasks

Essential to have undertaken the Model Building exercise outlined in Briefing Sheet Number 11.

Guidance

This exercise needs to be done by the project team, with the initial assistance of the software consultants. The project team should fully understand the software by this stage but may not be aware of its reporting capabilities.

The Armstrong Laing software has certain reports built into the system but information can also be exported or copied and then manipulated in Excel. The project team found pivot tables a very useful tool when handling large amounts of data in Excel. Various staff were asked to help validate the reports and only minor changes to the model were required. A couple of days to produce meaningful reports should be adequate.

At many of the stages earlier in the ABC process, from the Management Briefing (Briefing Sheet 1) onwards, participants will be letting the project team know what type of information they are interested in and it is obviously a good move to note this down and report on as much of this information as possible.

Resources

A list of reports we found useful are appended.

Produce Reports from Software and Analyse – Resource Sheet Number 12

A list of reports we found useful:

School Costs by Department – shows the costs of each department (cost code) as a proportion of School total costs.

Account Costs by Department – For each cost code used by the School (Departments) we were able to get a breakdown of the accounts that made up those costs.

Activity Costs by Account – showing which accounts contribute to the cost of an activity or group of activities.

Activity Costs by Department – showing which Departments contribute to the cost of an activity or group of activities.

Cost Objects Costs by Account – showing which accounts contribute to the cost object costs and to what degree.

Cost Objects Costs by Department – showing which departments contribute to the cost object costs and to what degree.

Cost of Quality breakdown for the School and by Department.

Value Analysis breakdown for the School and by Department .