COMMONWEALTH of LEARNING

PREST

Practitioner Research and Evaluation Skills Training in Open and Distance Learning

MODULE

A1

Doing educational research and evaluation in ODL

The PREST training resources aim to help open and distance learning practitioners develop and extend their research and evaluation skills. They can be used on a self-study basis or by training providers. The resources consist of two sets of materials: a six-module foundation course in research and evaluation skills and six handbooks in specific research areas of ODL. There is an accompanying user guide. A full list appears on the back cover.

The print-based materials are freely downloadable from the Commonwealth of Learning (COL) website (www.col.org/prest). Providers wishing to print and bind copies can apply for camera-ready copy which includes colour covers (info@col.org). They were developed by the International Research Foundation for Open Learning (www.irfol.ac.uk) on behalf of COL.

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Module A1: A1 Doing educational research and evaluation in ODL

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Permissions

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Doing educational research and evaluation in ODL

MODULE
A1

Module overview

In this module you will be introduced to an overview of educational research and evaluation in open and distance learning (ODL).

We shall start by looking at the idea of 'practitioner research', since that is the type of research that you are most likely to be doing. This will help you to locate yourself in the research spectrum. We will then move on to ask what constitutes 'research' at a fundamental level and look at how it is viewed in ODL. Next we will look at the various reasons that people give for doing research and, in particular, look at the distinction between 'pure' and 'applied' research.

Evaluation is a particular type of applied research and we will introduce you to the idea of evaluation as an 'industrialised' process. We will then look at a wide range of research areas and topics within those areas in ODL. You will also explore the social, political and environmental factors that influence the research agenda and we introduce some categories for distinguishing between certain styles of research.

Towards the end of the module you will be encouraged to decide upon your own research project. However, even if you are not yet ready to choose a research project, this module will provide you with a good background understanding to research and evaluation in ODL.

Aims of the module

The aims of this module are to:

1 Introduce you to the concepts of practitioner research and evaluation in the context of ODL.

2 Help you to think in a critical way about what research is, the range of activities it covers and why people do it.

3 Make you aware of the importance of the social and political context in which practitioner research takes place.

4 Help you think about how these matters relate to you and your own work situation.

Help you to begin to plan a research project based on your own institution. (You will continue to develop and refine this project as you work through the other modules.)

Module organisation

The module is structured into this introduction and eight units, as follows.

This introduction: (1 hr)

Unit 1: You the practitioner (2.5 hrs)

Unit 2: What is ‘research’? (3 hrs)

Unit 3: Why do research? (3 hrs)

Unit 4: Research or evaluation? (1 hr)

Unit 5: Different methodological stances (2 hrs)

Unit 6: The range of research areas and topics (7 hrs)

Unit 7: External forces that shape the evaluation agenda (1 hr)

Unit 8: Starting to map out your own research project (1.5 hrs)

Each unit is made up of the following components:

- an introductory paragraph or two that provide an overview of the unit, its focus and outcomes
- one or more activities for you to engage in, such as readings to complete and analyse, questions to answer, or problems to solve
- a commentary on these responses that takes you deeper into the topic by providing new information and suggesting further reading
- a unit summary
- feedback on your responses to the questions or problems posed in each activity.

You will need about 22 hours to work through the module.

How to use the materials

The module is self-contained. All the readings you will need are contained either in the *Resources File* which accompanies this module or can be downloaded from the Internet. In addition, the general feedback provided in response to each activity is intended to keep you on track yet at the same time reinforce your own thinking and reflection.

Other information sources

A good starting point for information about research in ODL is the Commonwealth of Learning Knowledge Finder. This can be accessed at http://www.col.org/about/search/

Resources

The following resources are used in this module:

Resource	Name when referred to in our text	Location
Woodley, A. 1999 'Doing institutional research: the role of the partisan guerrilla', *Open Learning* 14, 2: 52-58	*Woodley*	*Resources File*
Berge, Z. and Mrozowski, S. 2001 'Review of research in distance education, 1990 to 1999', *The American Journal of Distance Education* 15, 3: 5-19	*Berge and Mrozowski*	*Resources File*
Gibbs, G. 2002 'Editorial' *Open learning* 17, 2: 101-103	*Gibbs*	*Resources File*
Anderson,T. 2004 'Practice guided by research in providing effective student support services' in J. Brindley, C.Walti and O. Zawacki-Richter (eds.,) *Learner support in open, distance and on-line learning environments* (pp. 259-272). Oldenburg: Bibliotheks und Informationssystem der UniversitŠt Oldenburg	*Anderson*	*Resources File*
Cookson, P. 2002 'Access and equity in distance education: research and development and quality concerns', keynote speech presented to the *Annual Conference of the Asian Association of Open Universities 2002*, 22-26 February 2002, New Delhi: IGNOU, available at: http://www.athabascau.ca/ html/staff/admin/cookson/AAOU_keynote.doc	*Cookson*	*Resources File*
Daniel, J. 2002 'Why research distance learning?' paper presented to the *CRIDALA conference 2002*, Open University of Hong Kong, June 5-7, 2002. Available at: http://www.ouhk.edu.hk/cridal/cridala2002/discus/messages/ 4/daniel.pdf	*Daniel*	*Resources File*
Mishra, S. 1998 'Distance education research: a review of its structure, methodological issues and priority areas', *Indian Journal of Open Learning* 7, 3: 267-282	*Mishra*	*Resources File*
Panda, S. 2000 'Mentoring, Incentives and rewards in research as professional development', keynote paper for the *Conference on Research in Distance and Adult Learning in Asia (CRIDALA)*, Open University of Hong Kong, June 21-24, 2000. Hong Kong: Open University of Hong Kong	*Panda*	*Resources File*
Naidu, S. 2003 'Research, scholarship and publishing in distance education: weaknesses, opportunities and challenges', paper presented to *Pan-Commonwealth Conference 2004*, Dunedin, 4th-8th July 2004.	*Naidu*	*Resources File*
Robinson, B. and Creed, C. 2004 'Moderators' report and summary of discussion', pre *Pan-Commonwealth Forum on Open Learning 2004 virtual conference*. Available at: http://www.col.org/ programmes/conferences/virt_04_rpts/pcf3research.htm with postings at http://hub.col.org/pcf3research/	*Robinson and Creed*	*Resources File*
Woodley, A. and Ashby, A. 1994 'A target audience: assembling a profile of your learners' in F. Lockwood (ed.) *Materials production in open and distance learning* pp. 18-26, Paul Chapman: London	*Woodley and Ashby*	*Resources File*
Woodley, A. and Parlett, M. 1983 'Student drop-out', *Teaching at a distance* 24, pp. 2-23	*Woodley and Parlett*	*Resources File*

You the practitioner

UNIT 1

Unit overview

This unit introduces you to the idea of ‘practitioner research’ as opposed to other types of research. By considering your own job and those of others, you will be encouraged to locate yourself in a particular research context.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Describe the main characteristics of ‘practitioner research’.

2 Illustrate its diversity on the basis of a set of ‘pen portraits’.

3 Identify where practitioner research has been, or might be used in your organisation.

4 Identified some sources of information on ODL that might be useful to you.

Introduction

In this unit we begin to discuss what is meant by practitioner research and provide you with opportunities to reflect on what it might mean for you. You will also meet seven researchers, whose range of activities helps to illustrate the spread of practitioner-based research in ODL. These researchers will appear at regular intervals throughout this module and in some of the other modules in the PREST series.

The word ‘practitioner’

You will have noticed that we have used the term ‘practitioner’ in the PREST title and in the title of this module. What difference would it have made if we had left the word ‘practitioner’ out altogether? I will try to answer this in a number of ways.

Firstly, we have aimed our teaching material at people who are involved with ODL You may be a teacher, an administrator, a researcher, a manager, a Ministry Officer or whatever, but your work is concerned with ODL.

We assume that you have, or are about to gain, a working knowledge of the techniques and systems of ODL. This means that we are not going to describe ODL in any great detail, nor are we going to teach you how to design ODL teaching material.

If you work for an organisation that provides ODL, then we see you as being an ODL practitioner. We assume that you will be going on to do (or commission) research and evaluation within your own organisation or institution.

Unless you are a full-time researcher/evaluator, then some or all of the research you do will be into your own practice as an ODL teacher, tutor, administrator or whatever. On the other hand you may be asked to look at the ODL that is being carried out by others. As an educational practitioner you will be looking at ODL from the outside.

Whatever your situation is, and however experienced you are, we expect you to use this learning opportunity to consider your own position as a practitioner with a view to carrying out your role better and in a more reflective manner.

Writing these modules has presented great challenges to us as authors because we don't know who you are! What we do know is that, collectively, you are likely to be a very diverse group. So, using our experiences of ODL around the world, we used a number of 'pen portraits', based on researchers we have met in different contexts. These are outlined below and in the study guide and we hope that you can identify with one or more of them. We will refer to these imaginary individuals by name from time to time throughout the modules and handbooks.

The pen portraits reflect the research needs of seven ODL practitioners working in different institutional contexts and areas of education, and with different levels of support for their research. Three work in different types of non-governmental organisations (NGOs), two within a Ministry of Education and the last two in different types of open universities.

Pen portraits

Zobaida – NGO 1

Zobaida is in her late twenties and has a BA in sociology from Dhaka University.

She works with an international non-governmental organisation in Dhaka, whose aim is to increase access to basic education for girls in Bangladesh, in a culturally sensitive way. Zobaida has been asked by her project director to document the regions in Bangladesh where enrolment is lowest and to conduct interviews with out-of-school girls.

She has been allocated a travel grant to visit these areas and to find out why so many girls have dropped out of school. She has been asked to put together a report on her findings and to make a presentation at a meeting in front of her donors in two months time.

Fancy – NGO 2

Botswana is a prosperous African country with a stable government, good infrastructure, and good education system. Despite this, it also has one of the highest rates of AIDS/HIV infections in the world. As the AIDS pandemic spreads throughout the country, the number of AIDS orphans increases. A growing concern of the government is how to educate these children.

Fancy is in her late twenties and works with a small non-governmental health organisation in Botswana. She has a BSc in biology and a masters in epidemiology. She has been asked by the Ministries of Health and Education to examine alternative modes of schooling, which can cater to the growing number of AIDS orphans throughout the country, especially amongst the most marginalised communities.

Venkamma – NGO 3

Venkamma is with an NGO in Hyderabad, working on educational reforms to help prisoners. She is 25 years old, single, and living with her parents. She contracted polio during childhood, but despite being in a wheelchair, she completed a degree in economics and is currently working on a master's degree at BRAOU in psychology. She has been asked by the Dean to write a report on the potential use of distance education in prisons. He has asked her to create a profile of the educational level of the prisoners and to find out what subjects would be the most beneficial for the prisoners. He has also recommended that

she conduct some semi-structured interviews with the prisoners. She hopes to use this research as the basis for her application to continue for a PhD dissertation.

Ministry of Education

The Minister of Education in the Republic of Nuime is concerned to put his country on the map as far as open and distance learning is concerned. He is new to this Ministry but he has heard people describe how ODL and technology can help address issues of access and equity and help developing countries to catch up with developed nations. He has also been told that ODL can be more cost-effective than the traditional means of delivery. He wants results fast. There are political expediencies to consider. There is an election coming up and he has to help his Prime Minister show that education is truly serving the socio-economic development of this small island nation, and try to justify and, if possible, increase his department's budget. He approaches two middle-ranking officers in the Ministry of Education, *Yahaya* and *Agatha*.

Yahaya – Ministry 1

Yahaya is in his mid-to late forties. He studied economics to master's level in the United Kingdom about 12 years ago. He has recently transferred into the Ministry of Education from the Ministry of Economic Development and is seen as having a great potential in public service. The Minister has asked him to conduct a study into the national take-up and drop-out rates in distance education courses provided by the country's dual-mode university, two technical institutes and teachers' college. The Minister is wondering whether additional expenditure on these particular initiatives is justified or whether the extra resources might be better granted to develop an open schooling system, making up for deficiencies in the current primary school system.

Agatha – Ministry 2

Agatha has been asked by the Minister to look at the case for using ODL methods to provide 'open schooling' rather than traditional classrooms. Universal schooling has never been achieved and now the country and its teachers are being devastated by AIDS. The Minister wants to know the extent of the needs and whether open schooling would be an effective and cost-effective way of addressing this issue and whether there are technological solutions for improving access to the relatively few well-qualified teachers.

Kabir Shastry – Open University 1

Kabir Shastry is a lecturer at the Open University of Udair (OUU) in the Faculty of Education. *Kabir* has been employed at the OUU for the past 12 years, joining immediately after he completed his Bachelors of Education degree from Udair University. Since then he has completed a short course on distance education for development Although *Kabir* has not had much research experience, he is quite enthusiastic to undertake research.

Research at OUU is very ad hoc and individualised. The idea of a research unit has been discussed for a while, but there is little commitment to its establishment and political changes at the top mean that the project is continually shelved. OUU sporadically publishes an academic journal – in the last five years, only two editions have come out. Moreover, the journal covers everything from research on distance education, to research on specialised areas over the whole academic spectrum. Some money is available for research projects, but its allocation is political and there is little monitoring once the monies have been given out. Access to institutional data is limited, if not impossible. Generally lecturers do not interact much with students at the OUU and there is little work on course development. Often staff at OUU fail to turn up for days on end.

In this context, *Kabir's* desire to do research is driven more by personal concerns rather then any institutional encouragement. *Kabir* sees research as an opportunity to work with international colleagues, an opportunity to get published and an opportunity to travel both nationally and internationally.

Abida Quuyaam – Open University 2

Abida Quuyaam is a researcher at Auranzeb Open University (AOU) and has been working there since she completed her degree in sociology six years ago. She is part of the Evaluation and Research Group (ERG) at the university where she works as a junior researcher at the unit. Besides herself, there is another junior researcher, a senior researcher and a director. Their mandate is everything and anything the vice-chancellor deems necessary to be investigated, from compiling statistics for different government departments, evaluations on programmes and research projects that come from abroad. *Abida's* main task is to liaise with the data management unit in order to gather statistics and compile them into simple reports. She also works on different projects when she has the opportunity. *Abida* does visit the regional centres and has experience in carrying out ready-prepared surveys. This has generated an interest in gender issues, as she has seen first-hand how ODL can benefit women.

Abida is keen to do research for both institutional and personal reasons. She has shown a wish to work on ERG projects related to gender issues, particularly questions about how the institution can improve access for women. On the personal front she hopes that undertaking research will give her an opportunity to travel and publish. She has submitted one article for the AOU journal but it was not accepted because her sampling method was seen to be weak, and her prose poor. She also does not have access to all of the more recent literature in ODL. The director of ERG however is supportive of Abida's desire to undertake research, and offers her opportunities where possible.

What do our seven researchers have in common?

What unites these seven quite different people, apart from their connection with ODL? Well, they all want to carry out research in order to directly improve the educational situation in their own country. By working through this learning material you will be considering research as a means of achieving one or more of the following:

- improving your own working practices
- improving the practice of your institution
- improving the educational system in your country
- improving ODL practice generally by disseminating research to the wider community

You and your research

Doing research involves certain skills and we will introduce you to them in the core modules. However, as will have been apparent from the pen portraits, and as I am sure you realise from your own situation, research is not just a question of acquiring technical skills. If we were training you to become chemistry researchers, say, then the equipment and procedures would be 'standard' but ODL research is rarely like that. What research you do, how you do it, and what happens to the results will depend to a large extent upon the social situation you find yourself in. There will be many influences that relate to your own position in the decision-making structure, to your own personal values, and to practical and economic factors in your society.

Thinking about the role of institutional researcher

I want you to read a paper that I wrote some time ago in which I reflected upon my own role as an 'institutional researcher' (an institutional researcher is somebody who carries out research designed to improve the working of that institution). As you read it, ask yourself what my role has been, how this happened and how it relates to your own role.

Activity 1 30 mins

The institutional researcher's role

You will need the *Woodley* reading (see the Resources File) for this activity.

Read the article and answer the following questions:

1 What was my research role?

2 Is it like that of any of the pen portraits?

The feedback to this activity is at the end of the unit ➔

Thinking about your role as researcher

Now I want you to spend a few minutes clarifying your own role in this type of research by completing the following activity.

Activity 2 20 mins

Write your own pen-portrait

1 Describe yourself and your research role in 200 words in the style of one of our pen-portraits.

2 Now fill in as many of the details that you can in the boxes below. The boxes from ‘focus of research onwards’ relate to the research project that you intend to carry out as you work through the other core modules. You may have very little idea what this might be yet, so leave the boxes blank if necessary.

What are your job title and duties?	
What type of organisation do you work for?	
What will be the focus of your research? e.g. literacy in rural areas	
What is your research aim, e.g. policy change.	
Who will be your research audience?	
Who will pay for the research? How much will it cost?	
What resources can you use? e.g. libraries, computers, other staff, etc?	
What research skills do you already have?	
What research skills do you need to acquire?	

The feedback to this activity is at the end of the unit ➔

Your relationship to your research

It is important to be clear where you stand in relation to what you are going to research. Are you like *Fancy*, who is going to be evaluating the research of others? She is going to be examining alternative modes of schooling. First of all she will be critically examining the research that has already been carried out in this subject in order to see what lessons can be drawn from it for her own country. She will be looking to see whether the researchers have used appropriate methods and whether the conclusions they have drawn can be justified by the data. She will also be using her own knowledge to estimate whether the findings can be generalised to the social, educational and political situation in her own country.

Fancy, *Venkamma* and several others will be collecting new data from institutions in which they do not work. They will have to gain the co-operation of the people in those institutions and they will have to demonstrate their neutrality and objectivity. They will also have to negotiate over the ownership of the data and the rights of the institutions being studied to share (and possibly challenge) the results.

Some of the research that *Kabir* and *Abida* will be doing in their open universities will be to evaluate the practices of their own colleagues. They will be carrying out what is often called 'institutional research'. In large organisations, such as the big open universities, there may be individuals or whole departments whose job it is to carry out this sort of institutional 'self-evaluation'.

Self-evaluation can create problems for fairly obvious reasons. For example, if this activity leads to statements by your institution to the effect that it is doing very well and much better than its competitors, then the integrity of you, the researcher, might be questioned. Also, if your findings suggest that your colleagues are not carrying out their duties adequately then you will be liable to internal criticism. So the role of the institutional researcher and the professional path that he or she must tread are complex and delicate ones.

Of course you may be doing research into your own work. For example, you may have tried out a particular educational innovation in your latest course and you want to find out if it works. Is it possible to be an objective researcher in such situations?

It is useful to bring in the thoughts of Alistair Morgan at this point. Having generated insights into learning from the learners' perspective, he says:

> *'How do we use the research finding? At one level, this could be regarded as feedback from the learners, which will subsequently influence course design and course improvement. This is the conventional systems approach to educational technology, which assumes that a teaching and learning system will have a rational feedback model, reacting and responding to feedback. Although this model may be attractive, in practice the real world is very different. Donald Schön (1983) is critical of what he calls the 'technical rationality', or the official scientific view of how professionals are supposed to act, as a totally inadequate description. He sets out a notion of 'reflection in action' as a more realistic model for understanding professional practice, which acknowledges judgement and the interpretation of research. Reflection-in-action implies that the practitioner becomes a 'researcher' of that practice, as he or she is required to make sense of and understand new situations. This requires the practitioner to be reflective, as a key to understanding unexpected and novel situations'*
>
> (Morgan, 1993, p. 130)

Schön acknowledges the complexity of professional practice and suggests that the way forward is to become a 'reflective practitioner' by constantly 'researching' that practice. In your case it will involve carrying out some actual research but it should also involve a great deal of introspection and discussion with colleagues. Doing practitioner researcher is not just about selecting a research tool,' turning the handle', cranking out the results and then making policy changes!

Being reflective

One way to become a more reflective practitioner is to complete all the activities in this module. Many of them ask you to think about your practice. The act – reflect – act cycle is critical to being a good researcher.

Finding out about ODL

Before you finish this first unit, we are going to provide you with an opportunity to scan some of the online sources of information on ODL. This will provide you with an overview of some of the sources that you might wish to use both later in this module and in the other modules and handbooks in this series.

Activity 3 60 mins

Online sources of information on ODL

In this activity you are going to explore a range of online sources of information on ODL. There is no particular task for you to do as you visit each site, but you might like to:

- make notes on those sites that you think will be most useful to you
- bookmark sites that you wish to come back to later.

The sites that you might like to visit are as follows:

Commonwealth of Learning	http://www.col.org/
UNESCO Institute for Information Technologies in Education and its associated sites for Africa and for Asia and the Pacific	http://www.iite-unesco.org/ http://www.africaodl.org http://www.unescobkk.org/
The Global Distance EducationNet (GlobalDistEdNet)	http://www1.worldbank.org/disted/ (see also the satellite sites)
ADEA working group on Distance Education	http://www.adeanet.org/wgdeol/
Open and Distance Learning for Higher Education Knowledge Base	http://www.unescobkk.org/education/aceid/higheredu/ODL/index.html
World Bank ICT for Education Programme	http://www.worldbank.org/wbi/ictforeducation/html/
Edusud (portal to Francophone African ODL)	http://www.edusud.org/
Imfundo	http://imfundo.digitalbrain.com/imfundo/

Peer reviewed journals available online (free)

International Review of Research in Open and Distance Learning	http://www.irrodl.org/
The Journal of Distance Education	Current issues: http://www.jofde.ca/index.php/jde/issue/current Archive: http://www.jofde.ca/index.php/jde/issue/archive
EURODL (European Journal of Open and Distance Learning)	http://www.eurodl.org/
Online Journal of Distance Learning Administration	http://www.westga.edu/~distance/jmain11.html

Peer reviewed journals available online (free)

The Journal of Library Services for Distance Education	http://www.westga.edu/~library/jlsde/
The USDLA Journal (United States Distance Learning Association)	http://www.usdla.org/html/resources/usdlaJournal/currentIssues.htm
EDUCAUSE Quarterly	http://connect.educause.edu/apps/eq/index.asp
The Technology Source	http://technologysource.org/
Australian Journal of Educational Technology	http://www.ascilite.org.au/ajet/ajet.html
Educational Technology Review (AACE—Association for the Advancement of Computing in Education)	http://www.aace.org/pubs/etr/
The Turkish Online Journal of Distance Education (TOJDE) – Anadolu University TURKEY	http://tojde.anadolu.edu.tr/
Interactive Educational Multimedia (Barcelona University)	http://www.ub.es/multimedia/iem/
International Journal of Educational Technology	http://smi.curtin.edu.au/ijet/issues.html
Educational Technology & Society	http://www.ifets.info/
Journal of Asynchronous Learning Networks	http://www.aln.org/alnweb/journal/jaln.htm

Peer reviewed journals available online (free)

TechKnowLogia – Distance Education and International Development	http://www.techknowlogia.org/
EDUCAUSE Review	http://connect.educause.edu/er/index.asp
Sloan-C View	http://www.sloan-c.org/publications/view/index.asp

Other resources

COL's archive of news releases: http://www.col.org/colweb/site/pid/102

COL's publications: http://www.col.org/colweb/site/pid/3095

COL's knowledge services/databases: http://www.col.org/colweb/site/pid/3093

There is no feedback to this activity ➔

Summary

In this unit we have begun to explore practitioner research by examining the concept 'practitioner'. Using seven pen portraits and some activities we have encouraged you to reflect upon your current position and the research that you may potentially undertake.

References

Morgan, A. 1990 'Whatever happened to the silent revolution?: research theory and practice in open and distance education' in T. Evans (ed.) *Research in distance education 1,* Geelong: Deakin University Press

Schön, D. 1983 The reflective practitioner: how professionals think in action. London: Temple Smith

Feedback to selected activities

Feedback to Activity 1

1 What was my research role?

The paper was written from the position of someone whose job it has been to look critically at the institution in which they work, but who was also a full academic member of that institution.

The role that I have adopted as an institutional researcher was not specified as part of the job description. It is one that has evolved over the years and is a complex function of the British higher education system, institutional demands, job status and my personality. If your job is to do institutional research with and into your colleagues, then you need to reflect on what your own personal role is to be. The role of 'partisan guerrilla' is not the only one and it may not be appropriate in your own situation.

2 Is it like that of any of the pen portraits?

My own role seems closest to that of *Abida Quuyaam*, the last of our pen-portraits.

Feedback to Activity 2

This activity might have been difficult for you, at least in parts. Your research plans might be too uncertain to specify at the moment. You may not know what research training you need yet. However, it will have worked if it made you to think about some of the social and practical rather than the purely technical aspects of research. You will be encouraged to come back to this table at some later date to see whether your answers have changed or become clearer

What is ‘research’?

UNIT

2

Unit overview

In this unit we look at what constitutes ‘research’ at a fundamental level and how it is argued about in ODL academic circles.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Arrive at your own definition of what constitutes ‘research’.

2 Discuss how that definition varies between different contexts.

3 Understand the current debate on this topic among ODL researchers.

What is research?

Before doing physical activity it is a good idea to warm up your muscles. I hope that what you are about to do will be a gentle stretching exercise for the brain!
When I came to write this section, I realised that ‘What is research?’ is quite a difficult question to answer! So I want to start with what **you** think it is.

Activity 1 5 mins

Imagine that you are compiling a dictionary. The next entry is the word ‘research’. Explain the meaning of the concept using fewer than 20 words.

Your explanation:

The feedback to this activity is at the end of the unit ➔

Let's move on by seeing what 'the experts' come up with. When I looked in my Chambers English Dictionary it gave this:

'A careful search; investigation; systematic investigation towards increasing the sum of knowledge.'

But that is just one definition in one dictionary in one language.

The next activity goes a little further.

Activity 2 10 mins

Part 1: If English is your first language

1 Look up the word 'research' in any other English dictionaries that you have to hand.

2 Are there any noticeable differences or nuances in the definitions? Which do you think is best? I particularly like 'a course of critical or scientific enquiry' (Shorter Oxford English Dictionary).

Part 2: If English is not your first language

1 See how the English word 'research' is translated into your language. Then take the word(s) offered as translations for 'research' and look up their meaning in your own language dictionary.

2 What is the origin or etymology of the word in your language? For example the French (Recherche) and the German (Erforschung) are very similar to the English with the idea of search and search again.

3 Are there any linguistic or cultural connotations that would suggest that research is understood differently in your community? For example in some religions 'research' might exclusively refer to the detailed examination of sacred scripts. In others 'research' might refer only to procedures in the natural sciences.

The feedback to this activity is at the end of the unit ➔

The range of uses of the word ‘research’

The word ‘research’ then, at least in the English language, is a fairly general term suggesting a process of rigorous enquiry in the pursuit of knowledge. For the moment let’s acknowledge that the verb ‘to do research’ is not quite as straight-forward or as self-explanatory as certain other verbs such as ‘to drive a car’ or ‘to kick a football’. I want to move on to look at your underlying ideas, preconceptions and stereotypes concerning ‘research’.

If you meet somebody who says that they are a police officer or a rocket scientist or a car mechanic, then you form a fairly accurate picture of what their job entails. However, if a person says that they do research, the image you conjure up may be vague or wildly inaccurate. This is because the term ‘research’ is used in a variety of both work and non-work situations. The following activity is designed to explore the different dimensions involved.

Activity 3 30 mins

Uses of the word research

Read through the seven imaginary examples below. Some use the word research and others don’t.

For each example, note down:

1 Whether or not you think that it involves research in terms of your favoured dictionary definition.

2 The reason for your answer.

Case details	Is it research?	Why?/Why not?
1 I am thinking of buying a new bicycle, so I need to do a little research.		
2 The lab worker is testing blood samples to see which show signs of anaemia.		
3 The last time I baked some bread it did not rise. So this time I am trying a different batch of yeast.		
4 As the unit's administrator, I have gone through the records and noted that the amount of photocopying has gone down since staff have been using email, so I have decided to get rid of one of the copying machines. I will see what the records show next year.		
5 Professor Jones is in the library reading some journal articles.		
6 I have talked to a number of students on my course and women seem to find it more difficult than men. So now I try to give them extra support. I will see if it makes a difference.		
7 Professor Khan's journal article on distance education brings together evidence from numerous studies that she has carried out. She concludes that distance education is frequently just as expensive as face-to-face teaching.		

The feedback to this activity is at the end of the unit ➔

What have we learned from these activities?

Let's now take stock. If we accept that all of the cases in the last activity were examples of 'research', using its broadest definition, what have we established? The next activity is designed to help you to explore the different dimensions of this diversity.

Activity 4 20 mins

The dimensions of research

It is clear that research varies a lot. For example, some research involves collecting new data, some does not. Reflect on the seven cases, and on your own experience, and note down other dimensions of variability that seem important.

The feedback to this activity is at the end of the unit ➔

An example from a current debate

By now you might be getting a little annoyed. You probably think that you know what 'real' research is and you just want to get on with it. Well, in order to convince you that there is little agreement on the subject, I would like you to read an article from one of the leading English-speaking international distance education journals.

If you are not used to reading academic journals, it should give you some idea of:

- the standards involved in journal publication
- the level of argument
- the formal academic language
- the rules of referencing.

Above all, you will get the most out of the article if you read it 'critically'. This does not mean that you are just looking for faults – after all you can 'critique' something and find it to be very good. What I mean is that you should try not to absorb the contents like a sponge. Instead you should constantly test out what you are reading against your own prior learning, your own conceptions and you own common sense.

Activity 5 30 mins

Review of research in distance education

You will need the *Berge* and *Mrozowski* article (see the *Resources File*) for this activity.

Read the article. As you read, ask yourself the following questions:

1 Is their approach acceptable?

2 Do you find their results surprising?

3 Are the authors' arguments convincing?

4 Do you find the results useful?

5 If you had been writing the article, would you have done it differently?

The feedback to this activity is at the end of the unit ➔

The last activity offers a very controversial conclusion. *Graham Gibbs*, the editor of *Open Learning*, while resisting the temptation 'to throw myself off a cliff', was provoked to mount a spirited defence which I would like you to read.

Activity 6 15 mins

The Gibbs' defence

You will need the *Gibbs* article (see the *Resources File*) for this activity.

1 What arguments does *Gibbs* use in his defence?

2 Who do you feel is right?

The feedback to this activity is at the end of the unit ➔

Now that you have met some opinions on ODL research, you are ready to form your own opinion for a particular journal.

Activity 7 20 mins

Analysing a distance education journal

For this activity you will need a copy of a distance education journal that is relevant to your work. (If you cannot get hold of a physical copy of journal, you could look at one online – for example, one from the list at the end of this activity.)

You are going to analyse its content and editorial approach – there is no need to read any of the articles.

Survey the journal and then answer the following questions:

1 Are the articles 'research' in Berge and Mrozowski's terms?

2 What do you think Gibbs would say?

3 What methodologies have been used?

4 What topics are looked at?

5 Who are the authors? What are their job titles?

European Journal of Open and Distance Learning	http://www.eurodl.org/
The International Review of Research in Open and Distance Learning	http://www.irrodl.org/
Journal of Distance Education	http://cade.athabascau.ca/
Online Journal of Distance Learning Administration	http://www.westga.edu/%7Edistance/jmain11.html

The feedback to this activity is at the end of the unit ➔

Conclusion

While neither side is absolutely right or wrong about what constitutes 'research' – they both have some valid points – I tend to side with *Gibbs*. I would agree that many carefully controlled lab-based experiments add little to the understanding of real-life ODL learning situations. (For example, while it may be of interest to know that school children can learn well from radio programmes, it is more important to know that most of the radios supplied are broken or have flat batteries). Also, while people can attempt to apply the methods and standards of the natural sciences to

ODL, this should not exclude other approaches that can offer valuable insights. (For example, an in-depth interview with one student can be highly illuminating).

In the latter part of this unit we have been looking at an academic argument about what constitutes research based upon the content of journals. However, to judge all ODL practitioner research in this way would be like drawing conclusions about icebergs based on the small fraction that is visible. The vast majority of such research does not result in publications, but in internal reports, memos or even verbal communication. In the next unit we will address this issue by using the question 'Why do research?'

Summary

In this unit you have been encouraged to think of the concept of 'research' as problematic. It has a variety of meanings and forms. Even in the realms of academic journals there is no agreement as to what really constitutes research.

References

Berge, Z. and Mrozowski, S. 2001 'Review of research in distance education, 1990 to 1999', *The American Journal of Distance Education* 15, 3: 5-19

Gibbs, G. 2002 'Editorial' *Open learning* 17, 2: 101-103

Feedback to selected activities

Feedback to Activity 1

Well I found this activity pretty hard. I came up with:

'To find out more about something by carefully studying it.'

Everybody's answer will be different, and yours may well be better than my effort.

Feedback to Activity 2

Perhaps the main point that we should note here is that, in the English language, 'research' comes from the French word 'recherche'. Fundamentally it means to search then search again, or continue to search.

Feedback to Activity 3

Here are my thoughts on the seven cases. However, I will begin by saying that I think that all could be classified as ‘research’ in the general sense.

Case 1

This is a very informal use of the term ‘research’. It is clearly just one person who is finding out something for their own benefit. It requires little if any training. As for the research process, it might vary from contacting one to twenty shops to compare prices, or it might involve detailed investigations of gear ratios and tyre quality. The decision to buy might eventually come down to favourite colour.

Case 2

The white-coated lab-worker has many of the hallmarks of classic scientific ‘research’. It is clearly a systematic investigation using appropriate equipment, rigorous procedures and a reporting strategy.

However, the only ‘new knowledge’ is whether or not a particular sample is positive or negative. The whole process could probably be carried out by a machine. Maybe a more appropriate term would be ‘testing ‘or ‘monitoring’.

Case 3

While far less formal than the previous example, this is perhaps much closer to scientific research in that it represents an ‘experiment’. Of all the variables that could be to blame, it is hypothesised that it is the yeast and a new one is being trialled. To be more ‘systematic’, and to learn faster, one might advise the cook to try a variety of yeasts on one batch of dough and under carefully controlled conditions. However, much of what passes for everyday knowledge has accumulated over the years from such ‘informal experiments’.

Case 4

In many ways this is similar to the last example. It appears more formal in that it involves consulting written records and it is within a work environment. The administrator is investigating ways in which to save money. However, she is unlikely to see it as research. It is part of her job as an administrator.

Case 5

I would say that whether or not this is research depends upon what the professor is actually doing. If he is just catching up on the research literature then this activity is

normally referred to as ‘scholarship’. If he is reviewing the literature in order to decide the best way to construct his new study then this is ‘background research’.

Case 6

Again a fairly informal approach. However, underlying the statement is a conventional research approach: observation, hypothesis, intervention, re-measurement.

Case 7

This has a lot of the characteristics of a classic piece of distance education research. Implicitly it tests out a hypothesis, (that ‘distance education is less expensive than face-to-face education’) by collecting and analysing empirical data on costs and student progress rates. It is disseminated in a reputable journal to colleagues working in the same field.

Feedback to Activity 4

I have noted the following points. You may have others.

- it can vary from a very informal activity carried out in a person’s head to a formal activity that produces an article in an international journal
- it can vary in terms of the methods used
- whatever the methods used, it can be done well or badly
- it can vary in terms of the amount of ‘rigour’ involved, or just how ‘systematic’ the investigation is
- the extent to which ‘new knowledge’ can be applied will range from the local to the global
- the research may support, extend, challenge or even disprove existing findings and theories
- research can be carried out for very different purposes
- a researcher may choose what to do or the research may be commissioned by somebody else
- the extent to which research results are disseminated will vary
- the researcher may not be an academic member of staff.

Feedback to Activity 5

Here is my 'critical reaction' to the article.

Firstly, I must agree that the journals that were selected are very respectable. As the authors note, they chose to examine four distance education journals that are 'the only peer-reviewed English language journals published continually from 1990 to 1999 and have been readily accessible worldwide'. 'Peer-reviewed' means that articles submitted for publication will have been sent anonymously to academic experts in the subject area. These 'referees' will recommend whether or not to publish the paper, and what changes might be necessary.

However, as they realise themselves, this excludes a lot of distance education research that is published in journals in related fields such as the media, communications, information technology, library science and education generally. It also leaves out all the non-English language journals. So it is possible that it will give only a partial view of the global situation.

I find it more difficult to accept the authors' second selection criterion, namely that the article should 'include a description of the methodology used in conducting the research reported in the article'. When they applied this they found that only 17% of the articles in *Open Learning* involved research. The figures were somewhat higher for the other three journals but they were all under 50%.

Feedback to Activity 6

First of all *Gibbs* criticises the majority of published research studies that report sophisticated methodologies and statistical analyses – i.e. those that count as research according to *Berge* and *Mrozowski* – because they add little to real understanding of educational situations:

'It is my perception that the overwhelming dominance of quantitative reductionist research into conventional higher education in the US (for example, the many thousands of articles about the reliability of atheoretical student feedback questionnaires) is not reflected in its impact.' (Gibbs 2002)

He claims that the reductionist quantitative paradigm – in *Gibbs'* view this is where studies measure what is easy to measure-inevitably have 'more difficulty coming to terms with the big, messy, picture'. As a result of this, the studies:

'… tended to focus on the use of individual technologies within a course rather than the integration and interaction of technologies within courses and with the totality of students' experience. They also tended to focus on students' experiences of, and performance in, individual course units rather than whole programmes' (Ibid)

Gibbs argues that quantitative experiments rarely lead to explanations of complex phenomena such as student drop-out. This requires theory, conceptual frameworks and insight. One cannot assume that data are inherently valuable simply because they are collected within a particular methodological framework.

He then goes on to defend the five articles in the same issue of *Open Learning*, all of which he suspects would not categorised as 'research' by *Berge* and *Mrozowski*. (You might like to read one or two of them if you have access to *Open Learning*.) He describes them as 'think pieces', but he could have gone further and classified them as 'theoretical' or 'conceptual' research. I say this because (a) research can take place without any data being collected, (b) each of the articles in question seems to be grounded in the 'research' previously carried out by the authors or by other researchers and (c) the methodology is often implicit rather than explicit.

Having selected the 'research' articles, *Berge* and *Mrozowski* used the four categories of Phipps and Merisotis (1999) – descriptive research, case study, correlational research, and experimental research-to classify their articles in terms of the research methodology used. They found that three quarters of the journal articles were descriptive (76%). Case studies, correlational research and experimental research formed only 9%, 8% and 7% respectively.

My critical response to this is firstly that the classification is not very useful if it places so much of the 'population' into a single category. I think that they should have considered creating sub-categories within the main category 'descriptive'.

Secondly I think that 'descriptive' is probably the wrong label. It is certainly the case that there have been a large number of pieces where people describe their own new technology course/programme/institution on a 'this is what we did' basis (although it is not clear which of these would have been categorised as 'case studies'). However, they include in this category all articles resulting from 'observation, questionnaires, attitude scales, and interviews'. This means that whatever conceptual framework employed and whatever sophisticated cross-tabulations or content analysis were used to tease out subtle relationships, the articles would remain 'descriptive' in their terms.

Thirdly, there is the feeling, implicit here but explicit in the works of Coldeway and others, that it is the experimental method that we should be aspiring to. Many feel that is only by adopting the methods of the natural sciences, such as the random allocation of subjects to experimental and control groups and the use of standard validated psychometric tests, that one can advance distance education as an academic discipline. Others such as *Gibbs* believe that real life 'experiments' in naturalistic settings are just as valid.

Feedback to Activity 7

I tried to do this exercise myself – and it was very hard. I chose *The Journal of Distance Education* (http://www.cade-aced.ca/en_pub.php) which is a publication of the Canadian Association for Distance Education (CADE). CADE describes itself as 'a national association of professionals committed to excellence in the provision of distance education in Canada'.

I looked at Volume 19, Number 1. (With journals, Volume usually refers to a year and Number to the edition in that year, so here we are talking about the first edition of the journal in 2004.) The edition contained six main articles:

- Paul Gorsky, Avner Caspia, and Inbal Tuvi-Arad – 'Use of instructional dialogue by university students in a distance education chemistry course'
- Bette Gray – 'Informal learning in an online community of practice'
- Allan Jeong – 'The combined effects of response time and message content on growth patterns of discussion threads in computer-supported collaborative argumentation'
- Martha A. Gabriel – 'Learning together: exploring group interactions online'
- Susan D. Moisey – 'Students with disabilities in distance education: characteristics, course enrollment and completion, and support services'
- Lori Wallace – 'Dealing with digital copyright issues in higher education: no is not a helpful institutional response'

Here are my thoughts:

1 Are the main articles 'research' in Berge and Mrozowski's terms?

This question is impossible to answer with any degree of accuracy just from the titles of the articles. However, by dipping into the abstracts and the articles themselves, I would say that the first five are all 'research' in their terms. They each have a research methods section and they each involve data collection.

Wallace's article on the other hand 'describes a campus-wide digital copyright project designed to address digital copyright issues in a Canadian university' by providing instructors with the necessary information and resources. There is no 'methods' section.

2 What do you think Gibbs would say?

I think that *Gibbs* would certainly have considered Wallace's article for inclusion in *Open Learning*. He might argue that rather than it simply being a description of what one university is doing, it is a 'think piece' that has implications for instructor support generally. A 'conceptual' piece of research if you like.

3 What methodologies have been used? (Using Sherry's categorisation)

I came up with:

- Paul Gorsky, Avner Caspia, and Inbal Tuvi-Arad: Descriptive
- Bette Gray: Descriptive
- Allan Jeong: Experimental
- Martha A. Gabriel: Case study
- Susan D. Moisey: Descriptive

However I could be persuaded that the 'descriptives' were 'case studies ' and vice versa.

4 What topics are looked at? (Use Phipps and Merisotis's classification)

Moisey's article on students with disabilities clearly falls in the 'Equity and accessibility' category. The other four 'research' articles are aimed at improving student learning but I am not sure whether that makes the 'Design issues' or 'Strategies to increase interactivity and active learning'

5 What else can you tell about the journal? For example, Who are the authors? What countries are represented?

I noted four things:

- Although it is aimed at Canadian distance education, the journal accepts articles from elsewhere. One is from the USA and one from Israel
- An article does not have to be a solo effort. It can be submitted by a team
- You do not have to work for a university to get published. One of the authors works for an NGO
- As a bi-lingual nation, CADE tries to publish everything in French and English. Most of the IRRODL papers are also available in Chinese, Spanish and French. However, English remains the main publishing language for Distance Education research

- If you got as far as the papers you will have seen that published research does not necessarily involve studying large numbers of cases. For one it was 8 students, for another 10 and a third 19.

Why do research?

UNIT

3

Unit overview

In this unit we will consider the various purposes of research in order to explore why people do research. We will distinguish between ‘pure’ and ‘applied’ research and argue that all research falls somewhere on a continuum between these two extremes.

Learning outcomes

When you have worked through this unit, you should be able to:

1 List a variety of reasons for carrying out research.

2 Describe a research continuum from ‘pure’ to ‘applied’.

3 Locate practitioner research in terms of its purposes and its applied nature.

The purposes of research

There are many books on **how** to do research but they tend to pay relatively little attention to the question of **why** we should do it. Let’s reflect upon this for a moment by considering how some people might answer the question ‘Why do you do research?’.

Western academics might be perplexed by this question because for them it would self-evident. It would be like asking them ‘Why breathe?’. If forced to answer, many would say that it is the very basis of their job. Some even see teaching as getting in the way of their duty to ‘push back the boundaries of knowledge’.

Others might describe research as a necessity for survival. This is because research, when coupled with publication in a book or reputable journal, is an important activity that has a great bearing on their status and promotion

opportunities. Some might say that they need to do research because it informs and improves their teaching. Others might mention natural curiosity or their own desire to learn.

Now imagine asking some other professionals engaged in research.

As I write this the 2004 Olympics games is about to start and during the games over 3,000 drugs tests of athletes will be carried out. If these researchers are asked why they are doing it, the answers will be clear 'Certain substances are prohibited. Any athletes found to have taken them will be banned.'

Venkamma from our pen portraits might say that she is doing the prison research because her Dean asked (told?) her to do it. But she also hopes to use this research as the basis for her application to continue for a PhD dissertation.

Fancy might say that research is needed because the growing numbers of AIDS orphans in her country means that alternative modes of schooling are needed.

So the question 'Why do research?' can be answered many different ways. The word 'why?' is so broad that answers can legitimately vary from 'in order to get promoted' to 'to increase the sum of knowledge'; from 'because I was told to' to 'in order to combat the AIDS pandemic'.

I want to narrow the discussion to outcomes, and to societal rather than personal outcomes. The dictionary definition of research that we have looked at gives the purpose of research as 'increasing the sum of knowledge'. This leads to the next question – '**Why** do we want to increase the sum of knowledge?' One way to answer this question is to take the commonly made distinction between 'pure' and 'applied' research.

Why do research in ODL?

Before we go on to look in more depth at research in general, we need to first take a look at why we need to do research in ODL. You will explore this topic through the following activity.

Activity 1 90 mins

This activity is designed to introduce you to some of the discussion about the current state of research in ODL. The activity is based around seven reading resources – see *Resources File*.

- *Anderson*
- *Cookson* – the section on quality assurance in this article is less important to this activity than the rest of the article

- *Daniel*
- *Mishra*
- *Naidu*
- *Panda*
- *Robinson and Creed.*

Tasks

Read each article and identify:

1 The reasons that the various authors give for doing ODL research.

2 What sort of issues and problems they cite as reasons either why there is a **lack** of research or a lack of **quality** research in ODL.

The feedback to this activity is at the end of the unit ➔

Is there a difference between pure and applied research?

'Pure' research tends to be associated with ideas and theories whereas 'applied' research is to do with action and practicalities. However, it is easier to give extreme examples than to provide precise definitions.

In a traditional science such as physics you might have 'pure' research into the basic structure of matter and 'applied' research into how to build a faster computer. In open and distance learning a 'pure' researcher might be looking at the history of peripatetic teachers in China in the Ming dynasty (I made that up) whereas an 'applied' researcher might be measuring the effects on student retention of assignment turnaround times.

Table 1 attempts to list some of the characteristics that each type of research tends to have. The list is not exhaustive but it should be sufficient to help you with the next activity.

Table 1 Characteristics of pure and applied research

Pure research	Applied research
Developing theory	Using theory or atheoretical
No clear practical uses/policy relevance	Clear practical use/policy relevance
Driven by thoughts/ideas	Driven by data
Guided by intellectual curiosity	Guided by research commissioners
Open-ended	Has time and money constraints
Aimed at peer group	Aimed at decision-makers

Activity 2 15 mins

Go back to the journal that you looked at in the last activity of Unit 2.

Look at each paper that it contains and try to decide whether it represents 'pure' or 'applied' research, or both.

The feedback to this activity is at the end of the unit ➔

The situation here is one that we have already referred to in the previous unit. Books and journals are not the only, or indeed the most common place to find the output from the types of research and evaluation that we are offering you training in. Practitioner research is near the 'applied' end of the scale, but it communicates with its audience in a variety of different ways from short memoranda to oral presentations, from workshops to confidential government reports. Published articles may well emerge later from the same research process, but they will be in an 'academic discourse' that may disguise the original purpose – namely to affect policy decisions and to improve practice. In short – to achieve change.

Research subject matter

In the final part of their paper, *Berge* and *Mrozowski* use Sherry's list of ten research issues to categorise the research articles by their subject matter. Apart from the problem of classifying the numerous articles that stray across boundaries, the ten issues seem clear and unexceptionable. Pedagogic matters such as design issues, learner characteristics and strategies to increase interactivity and active learning

were frequently addressed, but there was a dearth of articles concerning policy and management issues such as equity and accessibility, costs and operational issues.

The Sherry categories are by no means the only ones that are used to analyse the range of research in ODL. Categorisations have been offered by Holmberg, Gupta and Arun, Calvert, Panda, Sturrock and Howard, Scriven, and Jegede. These are all summarised in *Mishra* (1998), which is in your *Resources File*.

Activity 3 5 mins

Using the Sherry list

Go back to the journal that you have been looking at in previous activities.

1 Are the issues there covered by Sherry's list of ten research issues?

2 If not, which issues does your journal concentrate on?

The feedback to this activity is at the end of the unit ➔

What is more interesting in the context of this module is the shape of the distribution and the reason for the gaps. It is frequently asserted that distance education is a young discipline. Clearly this explains why there are few studies in the 'history of distance education' category. It has also been used to suggest that the discipline has to pass through a descriptive phase before becoming a more scientific/analytical.

A more powerful and basic factor concerns who does research in distance education, where they publish the results, and whether they publish at all. It is certainly the case that the majority of research in distance education is not published externally. It is carried out for the benefit of the individual or institution concerned and, in some cases, the results are seen as 'sensitive' in that competitors in the distance education market would like to have them. Many categories of staff are not expected to carry out research and those that are prefer to publish in journals within their own discipline.

Among our pen portraits both *Kabir* and *Abida* want to publish research in order to help their careers. This can be achieved on the basis of practitioner research and evaluation but that is not its prime aim. Here we are more concerned with applied research. Karl Marx famously said 'Philosophers have struggled to understand the world. The problem is how to change it.' (It is actually carved on his gravestone.) It could be said that the pure researchers are trying to understand the world and the applied researchers are trying to change it.

Practitioner research and evaluation can lead to publications. However, an initial report will almost certainly have to be transformed in terms of its language and structure in order to be accepted by a journal editor. You will find help with this in particular in the module *A6 Reporting Research to Support or Influence Change* and also recommendations for further reading in the area.

Summary

In this unit we have looked at the purposes of doing research. We have located practitioner research and evaluation at the 'applied' end of the scale but acknowledged that it can also lead to personal advancement through publication.

Feedback to selected activities

Feedback to Activity 1

Reasons for doing research in ODL

Daniel (2002) is the most forthright of these authors on why there is need for more research in ODL, citing the following reasons:

- academics accept that research is essential in order to advance learning in their own subject areas, so they ought to accept that the same applies to studying how they teach those subjects
- the world of ODL has created high expectations (e.g. amongst politicians) for what ODL can do. Can we demonstrate that these expectations are reasonable?
- changing technologies mean that we need to find out how best to use each new technology
- we need to find ways to reduce costs since 'it is by reducing costs that technologies cause revolutions'
- we need to know 'which models of collaboration work best and why?'
- there has been too much research which just compares ODL with classroom teaching. That does not take into account the complexities and variety of each type of education. We need more research into 'the way that learners use a particular medium within the context of all the other media and methods that make up that particular teaching and learning system'

Cookson (2002) adds to this:

- research is essential if we are to produce quality in ODL
- without research 'chronic problems' can easily be ignored.

Issues in ODL research

The other authors and editors are more concerned with what is preventing a better supply of good quality ODL research. They critique the current state of ODL research at various levels:

- 'research and scholarship in this broad field of DE is still very weak from several perspectives' (Naidu 2003)
- there is a tendency to produce descriptive research reports which 'tell you nothing new' (Naidu 2003)
- ODL often borrow research methods from elsewhere but use them 'less rigorously than in those disciplines' (Naidu 2003)
- examples of methodological failures mentioned by Naidu (2003), citing Phipps and Merisotis include: not using randomly selected subjects; not controlling for extraneous variables; not using valid and reliable instruments; and not controlling for 'feelings and attitudes of the students and faculty'
- concerns about the 'quality of research done' (Robinson and Creed 2004)
- concerns about a lack of agreement as to 'what constitutes good quality research and evaluation in ODL' and 'what criteria should we use in judging research and evaluation quality?' (Robinson and Creed 2004).

Feedback to Activity 2

It is difficult for me to make detailed comments because I don't know which journal you have been looking at. However, I suspect that your task was quite difficult for the following reasons: Academic journals tend to give 'pure' papers a higher status. (*Open Learning* actually has two sections: one for 'academic' papers and the other for 'findings' and reports for practitioners.) This results in more 'pure' papers being submitted, and in 'applied' papers being dressed up in the language and style of 'pure' papers in order to get them published.

Somewhat perversely, the opposite is also true! However ‘pure’ or theoretical the paper, in the concluding section of an article the authors will try to identify possible practical outcomes, no matter how far in the future or how hypothetical they might be.

Feedback to Activity 3

Having looked again at your journal you might want to ask yourself what its range of content implies for new recruits to distance education. Should they aim for gaps in the market? Or should they concentrate on those areas where a lot of the background thinking has been done, where there is a research literature to consult and where there is an active research community to provide support? I think that must ultimately be something for the individual to decide.

Research or evaluation?

UNIT 4

Unit overview

In this unit we explore the concept of evaluation as a type of applied research. We introduce the idea of evaluation as an 'industrialised' process.

Learning outcomes

When you have worked through this unit, you should be able to:

Define evaluation as a branch of applied research.

1 Identify the parallels with various industrial processes.

2 List reasons why evaluation studies may not be acted upon.

What do we mean by 'evaluation'?

The title of this module contains the words 'research' and 'evaluation'. This implies that the two concepts are different and distinct. We have spent some time considering what research is but what about 'evaluation'? To begin with, let's take a fairly common definition of evaluation as 'the systematic investigation of the worth or merit of some object'.

Activity 1 10 mins

Research but not evaluation?

Use your own experience or perhaps the journal that you have been using in previous activities to write down:

1 Some examples of ODL research that you think are **not** evaluation.

2 Some examples of ODL evaluation that are **not** research.

The feedback to this activity is at the end of the unit ➔

Evaluation as a form of research

Evaluation as a form of research occurs in all disciplines and professions. As applied to education this process came into its own in the 1950s and 1960s when governments invested large amounts of money in innovatory educational campaigns. These took place both in developed countries, where they attempted to eradicate poverty through literacy and supplementary school programmes such as HeadStart, and in developing countries as an attempt to boost national economic development. The research questions were plain. Do the campaigns work? i.e. How much learning took place? Are they cost-effective? i.e.What is the relative cost of the learning gains that were achieved? Evaluation was carried out by the government or its agents acting as 'neutral', objective outsiders.

Evaluation

In some cultures 'evaluation' is the term used for the process of grading students i.e. determining which students have done better than others. In these modules, we refer to that process as 'student assessment'.

Such types of evaluation are still carried out today, and you may well be asked to conduct them. However, 'evaluation' has taken on a much broader meaning within ODL. We have talked about applied research aiming to affect policy decisions and to improve practice. Well, evaluation when carried out within an institution has almost identical aims. Judith Calder starts her book with a very homely, commonsensical reminder of what it is all about:

> *'Think about the last time that you considered the need to make some sort of change. Before choosing a particular course of action, you would have reviewed the available options, or at least the options you knew about. You would have assessed how well each option might meet your needs, and at what cost. You would then have weighed up the advantages and disadvantages associated with each of the options before making your decision.*
>
> *… Whatever your area of concern [Calder gives family, personal as well as professional examples], in order to carry out any change, you will have had to work through the process which we call evaluation.*
>
> *The process of evaluation which we employ to reach a decision as to the way forward is the same regardless of the area of concern or its source or even of its importance. The care we take, the methods we use and the amount of attention we give to the process in those different situations is another matter.'*
>
> (Calder, 1995, p. 15)

So evaluation can be forward-looking – 'What shall we do?' – as well as backward-looking – 'Is what we have done worthwhile?' I would also add that evaluation can

be about ‘no change’. Research may show that all of the proposed changes will have negative results. Also research can actually be commissioned to buy time! When confronted by a difficult situation, policy makers may say that ‘We are doing research into that’, thus delaying a decision.

To summarise, I would say that ‘evaluation’ is applied research, it is about evidence-based decision-making and it is about which choice or change to make. Calder has likened evaluation to an individual making choices, but now I want you to start thinking about evaluation as part of the processes of a complex system such as an organisation or a society.

ODL as an industrial process

Theoreticians have tried to shed light on the development and use of ODL by likening it to the industrialisation of education. Here are the words of Otto Peters who was the first to put the idea forward.

> *‘From the start, distance study has a special relationship with the industrial production process insofar as the production of study materials in itself is an industrial process built into the whole teaching process as a constituent part, quite unlike the production of text books, for example.’*
>
> (Peters, 1983)

The sale of study materials clearly brings in questions of applied economics, but Peters also notes structural changes that occur during industrialisation and that appear in distance education such as the division of labour, mass production and automation, systematic planning and organisation, scientific measures of control.

The extent to which the processes outlined by Peters over twenty years ago have permeated distance education has been much debated in the research literature (Farnes, 1993; Rumble, 1995). If you are a lone distance educator working in a remote area, you may feel that your educational practices still resemble a craft rather than an industry. However, if you work in a large open university where evaluation practices have become embedded, you will probably recognise many parallels with industrial practices.

We are going to pursue the industrial model in the next activity. It does not matter if the context is unfamiliar to you. The main purpose is to throw light on the various evaluation processes that can also take place in an educational setting.

Activity 2 15 mins

Tasks which are or are not evaluation

Think of a very large car factory employing several thousand people. As well as the people physically making the cars there will be lots of other people throughout the factory carrying out other tasks to make the system work. Some of these processes could be termed 'evaluation' in the sense that they are carried out to improve decision-making, to increase efficiency and hence the profitability of the organisation concerned.

Here is a list of jobs. Note down to what extent each of them could be considered as an evaluation process and why.

Example

One such process would be 'market research'. Potential and past customers might be interviewed to see what features they would like in their next car.

Task	Is this evaluation? Why?
Market research	
Product development	
Quality control	
Advertising	
Organisation and methods/Time and motion	
Auditing	
Security guards	
Forecasting	
Market intelligence	
Customer satisfaction	

The feedback to this activity is at the end of the unit ➔

Evaluation and evidence-based decision making

In this unit we have talked about evaluation as being associated with evidence-based decision making. However, I do not want to suggest that we are heading for an objective, rational decision-making model in which research leads you to a unique solution that guarantees increased ‘profits’ or ‘student retention’. (In fact there is a lot of evidence to suggest that such a decision-making model does not exist in industry either.) Evaluation rarely has a clear and direct link to evidence-based decision making, for a number of reasons.

Firstly evaluation tends to be carried out in complex social settings, using imprecise tools. It will be relatively rare that the research provides clear, precise, unambiguous findings that point towards a single course of action.

Secondly, we have not yet considered the context in which this decision-making takes place. There are frequently several interested parties – often referred to as ‘stakeholders’. These may include government officials, funding agencies, administrators, teachers and the learners themselves. They are likely to have different views on the desired outcomes of a particular project and the relative worth attached to these outcomes.

An institution itself might have conflicting aims. For example, research findings that indicate how participation of learners with a poor educational background might clash with targets to increase retention rates.

An institution may choose to ignore research findings for ‘political’ reasons. For example, research might show very little demand for a proposed course but the institution might decide to go ahead for it because they must be seen to offering it for reasons of status.

So, to be more precise, we should perhaps say that evaluation aims to **improve** evidence-based decision-making.

Summary

In this unit we defined evaluation as a type of applied research aimed at improving evidence-based decision-making.

References

Calder, J. 1995 *Programme evaluation and quality,* London: Kogan Page

Farnes, N. 1993 ‘Modes of production: Fordism and distance education’. *Open Learning* 8, 1: 10-20

Rumble, G. 1995 ‘Labour market theories and distance education 1: industrialisation and distance education’. *Open Learning* 10, 1: 10-21

Feedback to selected activities

Feedback to Activity 1

Well, I found it fairly easy to think of examples of ODL journal articles that I would not classify as evaluation. These include papers that describe the technical details of particular ODL innovations or ones that trace historical trends within ODL. They describe rather than make any value judgements. Then there are the ‘think pieces’ that *Gibbs* referred to earlier.

However, I found it impossible to come up with examples of ODL evaluation that were not research. By definition, if the evaluation involves ‘systematic investigation’ then it must be research. It differs from other forms of research in that it attributes ‘worth or merit’ to things. For example, it concludes that teaching method A is ‘better’ than teaching method B. Or that institution X has ‘improved’ over time in offering educational opportunities to women.

It seems clear to me that just as ‘applied research’ is a subset of ‘research’, so too is ‘evaluation’ a subset of ‘applied research’.

Feedback to Activity 2

Market research

This is research that is carried out to see what potential customers want. The results should help the company be more successful by selling more cars. It is forward-looking or ‘formative’ evaluation.

Product development

This department will design new car models. Evaluation will take place when they build and test prototypes. The evaluation might consist of mechanical tests, it might be driven by a professional test driver or it might be tried out on members of the public. As a result of the evaluation there should be a better product.

Quality control

Quality controllers will ensure that the standards of the product are high, consistent and meet the appropriate levels set for the industry. Clearly a form of evaluation.

Advertising

Advertising will help the company make more sales. In itself it is not evaluation, but evaluation could be carried out to see how effective the advertising has been.

Time and motion/organisation and methods

These are researchers whose job it is to see whether staff are working in the most efficient manner and what processes or equipment can be introduced to increase efficiency. I would say that this was a form of evaluation aiming to make the organisation run better.

Auditing

These are control mechanisms to ensure that correct procedures are being followed, accounts are accurate, stock control is working. Again, a form of organisational evaluation.

Security guards

Good security will help the organisation to run better, but this is not an evaluation activity

Forecasting

If the company is to improve in the future it must measure and evaluate trends in car sales. It needs to know the amount of raw materials to order and how many workers will we need in five years time.

Market intelligence

The company needs to evaluate its own performance against that of others. What are its competitors in the market planning to do? How is their product different from that of its competitors?

Customer satisfaction

If the company is to improve it needs to know what its customers think of the product and how they think that it could be improved. This is evaluation by the consumer.

When we come on to the range of evaluation topics in open and distance learning in Unit 6, I think you will indeed see that all of these ‘industrial processes’ are to be found there. If you work in a large organisation you may have people or departments whose job it is to carry out these activities – as with Peters’ division of labour. If not, I

hope that the activity at least made you aware of the different forms that evaluation can take.

Different methodological stances

UNIT 5

Unit overview

This unit outlines various approaches to research and evaluation and makes some suggestions for how a researcher should proceed in ODL.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Distinguish between certain basic research approaches.

2 List some of their advantages and disadvantages.

3 Discuss the suggested advantages of using multiple methods.

Introduction

While we have broadened out the term research to cover a range of activities and purposes, we have tended to treat it as a homogenous whole when it comes to actually carrying it out. However, within the field of research there is a range of methods, sometimes based on fundamental differences about what constitutes ‘reality’ and how we can ‘know’ anything. In this unit we present a brief introduction to the approaches that have been adopted in open and distance learning.

In order to illustrate the differences and similarities more clearly, we have used the same example throughout.

How do we know that a course makes a difference?

Scientists have developed a chemical that will kill a certain pest in maize, if applied correctly. Educationalists have created a distance education programme to teach farmers how to use the chemical. The funding agency wants to know whether the distance education material works or not.

The ‘measurement’ or ‘quantitative’ approach

It is not too surprising that many evaluators attempt to emulate the achievements of the natural scientists (chemists, biologists, etc) by using the same research methods as they do. Their aim is to devise measuring instruments that are both ‘valid’ and ‘reliable’.

Valid

By ‘valid’ we mean that the instrument indeed measures the concept that it claims to measure. For example, a test may claim to measure ‘general intelligence’ but be ‘invalid’ because it only tests verbal ability.

Reliable

By ‘reliable’ we mean that the instrument will give the same results when used repeatedly. For example, a valid test of ‘general intelligence’ would be ‘unreliable’ if individuals obtained wildly different scores when re-tested.

In the purest form of the methodology, the measurement researcher would use such instruments as part of a laboratory-based experiment. In this way all possible external influences on the results could be controlled for.

In our example it might take the following form:

Imaginary experiment 1

A random group of farmers is invited to take part in the experiment.

They are brought in to the local college and given a pre-test to see how much they know about maize, its diseases, the new chemical, etc.

They are then given two hours to work through the distance learning material.

Their knowledge is then tested again using a post-test.

Comparisons between pre-test and post-test scores will demonstrate whether or not learning has taken place.

Activity 1 10 mins

This ‘experimental’ type of approach has both advantages and disadvantages/problems.

Spend 10 minutes trying to list the advantages and disadvantages/problems.

The feedback to this activity is at the end of the unit ➔

Many of the problems listed in the feedback occur because we are dealing with human beings and because we have been trying to measure educational outcomes using pencil-and-paper tests. One approach that would circumvent some of these problems would be to shift the emphasis to more easily measurable effects. We will now try to do this in Imaginary experiment 2.

Imaginary experiment 2

100 maize-growing villages are identified within a geographic area with the same soil, climate etc.

50 are allocated at random to the 'experimental' group (the ones who will be taught the new pest treatment) and the 'control' group who will not be taught but will be used for comparison.

Measures of crop output and quality per acre are taken in all villages before the teaching.

Measures of crop output and quality are taken after the teaching.

Now, if crop output and quality went up substantially in the experimental villages but went down or remained constant in the control villages, one might assume that the educational programme had had the desired effect.

If crop output and quality had gone up in both the experimental and control villages then this might have been due to some other factor such as particularly favourable weather conditions or the arrival of an insect that kills the original pest. You might also be observing what is known in social psychology as a 'Hawthorn' effect – the attention that has been shown to the control group has resulted in them changing their behaviour. Or it could be that the learning acquired in the experimental villages has been passed on to the control villages through social contact. In all of these cases the educational programme might have been a success but its effects were masked by other factors.

If the crop output and quality had not risen in the experimental villages it may be because they had not put the teaching into practice – perhaps they could not afford the chemicals, or they had implemented it incorrectly, e.g. getting the dosage wrong.

We have used these two examples of experiments to show three things:

- experiments have to be extremely well-designed to yield worthwhile results
- even then, the results will be open to interpretation
- such an approach reveals nothing about the underlying social processes that may be at work.

The ‘understanding’ or ‘qualitative’ approach

Whereas the former approach has its roots in the natural sciences, what we have termed the ‘understanding’ approach draws more on anthropology and uses a variety of ‘qualitative’ methods. These might include some or all of the following:

Observation: The researcher spends time in a real-life situation watching and listening to it, trying not to affect it by being there.

Participant observation: In this case the observer pretends to be one of the people in the situation and does not disclose that they are a researcher. They will alter the reality that they are observing, but not in the same way that a declared researcher would.

One-to-one interviews: The researcher tries to gain information from a single person by asking them questions about their feelings, attitudes, behaviour, etc.

Group interviews/focus groups: Here the researcher talks to several people at once, possibly asking the same questions to everybody or possibly listening to a more general discussion on given topics.

Analysis of documents: In some cases the researcher might have access to diaries, legal documents, histories, the minutes of meetings, etc that can shed light on the phenomenon in question.

The strong point of this approach is that, if the researcher does their job well, then they can describe what is really going on in a community when an educational innovation is introduced. Taking our farming example again, our researcher would probably want to spend some time in a given village prior to the educational part of the project to see how the village ran as a social system, how the agriculture was organised, who was responsible for tending the crops and, in particular, how the maize was normally grown.

When the distant learning material was introduced, she would observe the teaching and learning process and its consequences:

- Who was chosen as a student and why?
- Did they retain the expertise or did they pass it on to others?
- Did they seem to have grasped the general ideas from the teaching materials, or was it distorted?
- Was the knowledge implemented at all? If not where did the breakdown occur and why?
- Were the new methods adopted instead of, or in parallel to, traditional methods?

- Did the farmers consider the process a success in their terms?
- Would they be carrying on with it?

Activity 2 10 mins

Just as we did with the experimental approach, spend 10 minutes trying to list the advantages and disadvantages/problems of the 'understanding' approach.

The feedback to this activity is at the end of the unit ➔

Surveys

I have put in 'surveys' as a special category because, while they represent a research methodology, they can also be used to answer questions both from the 'measurement' and the 'understanding' perspective.

Essentially, surveys are a tool to ask a standard set of questions to a representative population. They are very flexible. They can be sent through the mail or electronically. They can be carried out by an interviewer who notes down the respondents' answers on a form or you can get students to fill in surveys during a class.

If you asking the farmers to say how much maize they produced then you are using a measurement technique. If you ask them why they did not use the chemicals then you are getting in to understanding. Some purists refer to all surveys as 'qualitative' as they rely upon the subjective answers of respondents.

Participatory evaluation

The distinctive element of this approach is one of 'democracy'. Rather than the researcher designing the evaluation agenda with the funding agencies, it is done in close collaboration with those who are being researched.

Brookfield described it as the turning of research activities into:

> *'[activities] in which the distinctions between researchers and subjects are blurred, to select topics for research according to subjects' definitions of importance, and to make data collection and data analysis a collaborative exercise in which all are involved in exploring and interpreting the multiple realities of subjects' perceptions. In participatory research, projects are*

conceived, designed and conducted by the community for the benefit of all community members.'

(Brookfield 1986, p. 15)

Activity 3 10 mins

How do you think that our example of the maize growers could become a piece of participatory evaluation? Jot down some ideas.

The feedback to this activity is at the end of the unit ➔

Action research

Action research is a complex research process that has been used in a wide variety of education, social welfare and educational settings. Basically it involves undertaking research into one's own practice with the aim of improving it. In principle it could be carried out by any individual or group, but here we are going to concentrate on professional staff working in education.

Action research is unlike other forms of research in two ways. Firstly, the researchers are directly concerned with the social situation they are investigating, instead of standing outside it and looking in. However, to help them think more clearly and avoid bias, they often use an outsider as consultant or 'critical friend'. Secondly, while most research tries not to affect the situation being researched, action research aims to intervene and to change part of the process. These changes are then monitored and analysed to form part of the findings.

Altrichter outlined the action research process like this:

> Action research tends to start from some practical problem or concern, and aims to develop and improve both the practical situation, and the knowledge of the participants. It usually proceeds in a series of stages:
>
> A: Finding a starting point.
>
> B: Clarifying the situation.
>
> C: Developing action strategies and putting them into practice (return to B).
>
> D: Making the resulting knowledge public.
>
> Action research begins with finding a starting point for development within one's practice (Stage A). Then, through conversations, interviews and other methods of collecting evidence, and through analysis of the information *gained, the situation*

*is clarified (Stage B). As a consequence of this clarification, action strategies are developed and put into practice (*Stage C).

Normally, the new action strategies will not solve a problem immediately. Therefore, their effects and side-effects need to be monitored in order to learn from experience and further improve the action strategies. So the research process moves back into clarification of the new situation, and the development of further action strategies (returning to Stage B). Two, three or even four cycles of planning, acting and reflecting on what has happened may be undertaken. At the end of the project the researchers make their new knowledge and understanding accessible to others by producing written case studies, or by oral presentations to other professionals in their field (Stage D). In this way their insights are opened up for critical discussion.

Adapted from Altrichter, 1993, pp 6-7

How would this work with our maize farming example?

Well the action researchers could be the educationalists who had designed the distance learning materials. They would do the research themselves to find out if they could improve the materials, or the way that the educational programme was delivered. They would not wait for the programme to finish. They might begin, like the qualitative researchers, by visiting the village and observing the teaching/learning process. When they had clarified what was happening and identified problems, they would change the materials, or alter the ways in which these were presented to or used by the farmers. They would then monitor the results of these changes. This might be repeated until they felt that the situation had sufficiently improved.

Which methods should I use?

This is a reasonable question for somebody about to ask on their first research project, but it is a difficult one to answer. I will outline some possible answers.

Use appropriate methods

One answer is to say that you should pick the methods that are appropriate to the research problem. For example, if you want to know the dropout rate on a given course, you will clearly go for a ‘quantitative’ study, probably based on course registration or attendance data. If you want to find out about the effect on village women of a radio campaign about contraception, you might well decide that this should be done qualitatively by sensitive women interviewers in people’s own homes.

Use methods rigorously

Most researchers would agree with this, but there are divisions within social science as to how social reality can be understood and hence what can be called ‘scientific’. Adherents of the quantitative, empirical school always select ‘objective’ surveys, tests and experiments, while those who feel that such methods do not tap into ‘what is really going on’ favour fieldwork based on observation, participation and interviews.

What I mean is that whichever philosophical or methodological approach you adopt, there are customs, rules of procedure and standards that must be observed.

Quantitative research may look more ‘scientific’ but if, for example, it breaks some statistical rules then it is not scientific. Some qualitative research may feel more like journalism or story-telling, but if it has been carried out using a rigorous and explicit set of criteria then it, too, is ‘scientific’. In later modules we lay out some of the rules and procedures for both quantitative and qualitative data collection and analysis.

Use methods demanded by the situation

We noted in our example that *Zobaida* had just two months to prepare her report. Clearly time was a major constraint that would affect the amount and type of research that she could do.

Activity 4 10 mins

What other types of practical constraints can you think of that might have an effect on your research design?

The feedback to this activity is at the end of the unit ➔

Use multiple methods wherever possible

In recent years, more and more researchers seem to have come to the conclusion that it is better to select a variety of research methods when approaching a problem, rather than any one single method. This is particularly the case when attempting to evaluate a whole course or programme.

It is now generally acknowledged that it is insufficient to evaluate a programme on the basis of pre-and post-tests of the knowledge held by learners. This is especially so in the case of part-time and distance education where environmental factors, at home and at work, are likely to play a greater part. While we still need to know what has been learned, we also need to find out the reactions of all the people concerned,

to know how the programme was actually run, and about any positive or negative side-effects.

Multiple methods are needed because different facets of the problem are best addressed in different ways, and you are more likely to describe a complex social phenomenon accurately if you set about measuring it from several different points rather than just one.

Summary

In this unit we have given a broad introduction to the main types of research methodology. We have said that choices can be made for both theoretical and practical reasons. We recommend multiple approaches whenever possible.

References

Altrichter, H., Posch, P. and Somekh, B. 1993 Teachers investigate their own work: an introduction to the methods of action research. New York: Routledge

Brookfield, S. 1986 *Understanding and facilitating adult learning.* Milton Keynes: Open University Press

Feedback to selected activities

Feedback to Activity 1

This is what I came up with:

Advantages

- The researcher is in control of all aspects of the experiment. Any changes in knowledge will definitely be due to the teaching material.
- The problems of bias amongst the participants is solved by random selection.
- The effects of incidental or extraneous variables are controlled for (all learners study under the same study conditions for the same amount of time).
- By using well-tried tests used by experts elsewhere the test results will be ‘valid’ (they accurately measure the phenomenon in question) and ‘reliable’ (they give the same score when repeated).

Disadvantages/problems

- Random selection does not necessarily mean random participation. Maybe only the ‘good’ farmers who are prepared to learn actually turn up.
- What about illiterate farmers? They will not be able to use the written material.
- Do the farmers still remember the lessons when the next planting season comes?
- The farmers may recall the material but still not implement the ideas.
- The teaching and learning was done in unnatural surroundings. Therefore the findings might not be generalisable.

Feedback to Activity 2

Here are my thoughts:

Advantages

- The learning takes place in a naturalistic setting rather than the contrived setting of the college classroom.
- We get to know what really happens after that from the perspective of the learners themselves.
- We can understand the outcomes in terms of the whole community context.

Disadvantages/problems

- The research takes a long time.
- It may not be generalisable to other villages.
- Success will rely heavily on the social and linguistic skills of the researcher.

Feedback to Activity 3

You might have made the following points:

- there would have to be a lot of prior consultation with the farmers concerning what they hoped to get out of the evaluation
- the evaluation would have to be ‘owned’ by the farmers and their community

- the goals of the farmers must be acknowledged – increased maize production might not be a goal
- local agricultural methods would have to be respected.

Feedback to Activity 4

Here are some of the things that I thought of:

- **Money**: This will effect size of samples, amount of travel, types of research equipment, etc.
- **Geography**: Some areas in your country might be too remote to visit. Others may have to be included in your study for political reasons.
- **Postal service**: a poor service may rule out mail questionnaires.
- **Literacy levels**: If literacy levels are low, self-completion questionnaires may be impossible.
- **Research skills**: There may be no trained interviewers in a certain local language.
- **Student access to equipment**: It may be possible to carry out the research electronically if the students are all online.

I am sure you thought of others.

The range of research areas and topics

UNIT 6

Unit overview

This unit goes through the very wide range of research areas, and topics within those areas, in ODL and gives examples of each. You are encouraged to use this to decide upon your own research project.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Describe the range of possible research areas.

2 Locate a given research topic within this range.

3 Begin to note areas of particular interest to you.

Introduction

Your work and that of your institution will almost certainly provide a vast array of activities and processes that could be researched, evaluated and improved. At the end of this module, we will attempt to guide you towards a research project that you can carry out as you work through the later modules in this series.

In this unit we describe the variety of issues that can and have been researched in the field of open and distance education. We give lots of examples and you will find that most of them are taken from the Open University in the United Kingdom, known by the abbreviation UKOU. There are three reasons for this:

1 I am most familiar with the UKOU because it is where I work

2 the UKOU has been going for over 30 years and so it has a lot of experience

3 its staff have been encouraged to publish their institutional research findings in books and journals.

But remember, these examples are only there to illustrate certain ideas and principles. They also tend to be quite old. We don't expect you to try to hunt them down but it does illustrate the correct way to reference research articles. We plan to add in more recent examples from around the world in the future.

We begin by clarifying some terminology.

Systems vs programmes vs courses

In what follows we break down the field into 'course', 'programme' and 'system' research and evaluation.

By 'course' we mean a piece of open or distance learning that it is self-contained. A learner enrols on it, studies it, and is perhaps assessed on it. For example, Kabir (the lecturer at the Open University of Udair) has been asked to evaluate the course 'Introduction to psychology' that is taken by many first year social science students.

A 'programme' means an array of related and linked courses provided by an institution that leads to a particular outcome or qualification. For example, if you take a particular set of psychology courses at the Open University of Udair, this programme will lead to a degree in psychology.

A 'system' refers to a whole providing institution or organisation. In our example the system is the whole Open University of Udair.

Practitioner research can be at any level. In order to work to some pattern, we are going to start at the top (or 'macro' level) and make our way down to the 'micro' level (the individual 'course' or learning activity).

In reality there is considerable over-lap. Some techniques, such as statistical tables, are used at all levels, so, whatever your interest, we suggest that you work through the whole list.

Activity 1

Applying the unit to your situation

This activity has no time guide, since it runs throughout the unit. It is designed to do two things:

1 to help you follow the structure of the unit (which is quite complex)

2 to help you explore what you currently do and what you might do in future in your institution.

Tasks

The table below sets out the contents of the unit. The words may not mean too much at the moment but they should give you a rough picture of where things are going in advance.

As you work through the unit, come back to this table and write down your ideas on things such as:

1 Whether **your institution** already carries out this activity.

2 Whether **you personally** carry it out.

3 **If not**, would it be a good idea to do so?

4 **If yes,** should you be doing more of it, or in different ways?

5 Would this be a good topic for **your own research project**?

The feedback to this activity is at the end of the unit ➔

Table 2 Research areas and topics

Unit section	Your notes
System evaluation Basic measures of activity	
Measures of efficiency	
Evaluating student outcomes *In comparison with other teaching methods* *In cases where there is no assessment* *Following up successful students* *Other, unplanned, outcomes*	
Overall system aims	
Policy evaluation Market research	
Surveys on policy options	
Monitoring	
The impact of policy changes	
Experiments of pilot schemes	
Organisational evaluation	
Programme evaluation Measuring the impact of qualifications gained	
Course evaluation How do you know what to change?	
How do you know what to change in ODL?	
Formative evaluation *Critical commenting* *Developmental testing* *Knowing your student*	
Summative evaluation *Feedback from tutors* *Feedback from students* *Extent of utilisation* *Overall view of the teaching* *General style of presentation* *Specific content issues*	
Cross-sectional studies	
Developmental studies	

System evaluation

Basic measures of activity

Any rigorous system of evaluation must begin with certain basic data such as:

- How many courses have been produced?
- How many students are there?
- How many applicants had to be turned away?

This data should be drawn from administrative records and be presented regularly, sometimes as part of an institution's annual report or separately as a volume of statistical tables.

We have called these 'measures of activity'. The information involved has to be collected routinely by the teachers or the teaching institution; it must be stored safely over time and it must be easily accessible to those who need it and who are entitled to have it. (McIntosh, Woodley and Morrison, 1980).

If you work in a situation where there are only one or two courses and quite small student populations, such matters might not seem to concern you directly. However, no matter how small the numbers, the principles of statistical presentation are the same.

Whatever your practitioner role is, you will be faced by statistical tables. Used properly they are excellent ways of summarising large amounts of numerical data in ways to allow you to see 'the bigger picture'. You may have to construct them, or interpret them, or both.

The skill of creating and presenting tables is covered in later modules in this series. In the next activity we just provide an introduction. It is a simple exercise to get you thinking about how you might present basic measures of activity better and how you might 'interrogate' the measures you come across from other institutions.

Activity 2 20 mins

Exploring measures of activity

You will recall that Yahaya, one of our pen–portrait learners mentioned earlier, has been asked to conduct a study into the national take-up and drop-out rates in distance education courses provided by the country's dual-mode university, two technical institutes and a teachers' college.

In Table 3, we show some imaginary data that has been provided to Yahaya by the university concerning its distance education programme that has now been running for four years.

1 What could Yahaya tell from the data?

2 What else might Yahaya need to know?

The feedback to this activity is at the end of the unit ➔

Table 3 Some basic activity data

	Year 1	Year 2	Year 3	Year 4
Number of courses on offer	2	5	6	12
Number of students	20	400	420	672
Number of staff	10	50	60	84

Measures of efficiency

Allied to measures of 'activity' are those of 'efficiency'. Using only the measures of activity from the previous section, we might find that the institution in our example appears to be doing better than another named institution because it has far more courses and students. However, this may be because it is employing vast numbers of full-time staff. This means that it is using more resources to achieve the same effect. In other words it is being less efficient.

Let us illustrate this by returning to the figures in Table 3. I have performed a few simple statistical calculations, in order to see what we can say about the institution's efficiency over the four years. Has it got better or worse? (The results are shown in Table 4. For this exercise I have ignored all of the queries about the actual data that I listed above.)

Table 4 Some efficiency measures applied to the activity data

	Year 1	Year 2	Year 3	Year 4
Number of courses on offer	2	5	6	12
Number of students	20	400	420	672
Number of staff	10	50	60	84
Number of students per course	10	80	70	56
Number of students per staff	2	8	7	8
Number of staff per course				
	(*The row above is intentionally blank.*)			

The major costs of ODL lie in course production. Once you have created an ODL course the cost of teaching extra students is relatively small. (Economists say that the 'marginal cost' of each new student is low). The more students who take the course, the lower the unit cost. So, if we measure **the number of students per course**, we would hope that this figure would **go up** over the years as you become more efficient. In our example this figure actually **goes down** from 70 to 56 in the fourth year. This is because the rise in student numbers has been cancelled out by the growth in the number of courses.

Similarly, we would hope that **the number of students per member of staff** was **going up.** This would mean that the staff cost per student was going down. The figures show that they did go up in the second year, but have since remained fairly static.

Activity 3 15 mins

The number of staff per course

A third measure of efficiency is the number of staff per course.

If the institution is becoming more efficient would you expect this number to be going up or down?

Calculate these figures yourself and write them in the spaces in Table 4 (You do this by dividing the number of staff by the number of courses in a given year.)

The feedback to this activity is at the end of the unit ➔

So, after what is probably an untypical first year as the programme starts up, our three measures of efficiency show the university getting worse, staying the same and getting better! In the next section we will see that life does not get any simpler when we consider efficiency in more depth.

The data we have considered so far is only about student enrolments. We do not know how effective the institution has been because we know nothing about the output. We would need to know how many students successfully completed the courses, how many went on to take other courses in the same institution and how many gained qualifications. It is a complex area that becomes more complex in ODL systems where students can take years off and where they can transfer partial qualifications into other institutions (Woodley, 1995).

One particular efficiency measure has centred on the question of 'cost-effectiveness'. This is a concept that is taken from economics and researchers who use it try to quantify the inputs and outputs of ODL in monetary terms.

It has been claimed by many that distance education is a cheap teaching method. While the cost of developing good quality courses can be high, the savings are also potentially high in the long-term. There is no need to build classrooms or lecture theatres and, as the course populations grow, the cost of teaching each extra student should become less and less. However, it is not always as straight forward as that. Some ODL courses are extremely expensive to design and small student numbers and high drop-out rates can easily remove any financial advantage.

Here I just want to alert you to some of the challenges to cost-effectiveness research by using an imaginary case study. The example I have chosen is of an Education Minister who wants to upgrade information technology skills among current secondary school teachers. She wants to know which of distance learning or residential schools would be more cost-effective, and so her civil servants set up an experiment. Five hundred teachers are taught using specially designed ODL material and five hundred are brought into a college to be taught the same IT skills face-to-face. At the end of the experiment, the results show that the cost of the ODL scheme was $7500 and 300 of the students passed the final assessment, whereas the cost of the face-to-face scheme was $10000 dollars and all 500 students passed. The ODL scheme was cheaper but they note that there was a high drop-out rate. The civil servants conclude that the face-to face scheme was more 'cost-effective' because it cost $200 per graduate, compared with $250 per ODL graduate. They recommend to the Minister that the ODL scheme should be dropped.

If you had been called in by the Minister at the beginning, you would no doubt have offered sound advice on how to design this experiment so that faith could be placed in the results! However, let's assume that you have been asked by the Minister to comment on the research report.

Activity 4 10 mins

IT: face-to-face or ODL?

1 What would you want to know about how the experiment was conducted?

2 What evidence would you want to find, probably in the technical appendices to the report, that would give you confidence in their calculations of cost?

3 What would you want to know about the 'effectiveness' measures?

The feedback to this activity is at the end of the unit ➔

So what would I tell the Minister? Well the classic answer would be 'I think that we need to do more research on this.' While this is almost always true, it is not an answer that ministers are looking for. A more diplomatic answer might be that 'It appears to be slightly cheaper to use face-to-face methods. However, because of

the difficulties in accurately costing each method, the difference in costs is probably not significant. In any case, a large part of the costs of ODL is incurred at the writing stage. If you went on to use these materials with more and more ODL students, the apparent cost advantage of face-to-face teaching might well disappear.'

Just how cheap distance education is, or whether it is cheap at all, is still a matter of academic argument among economists (Wagner, 1977; Mace, 1978; Rumble, 1997). (There is a separate handbook in this series on costs and economics in open and distance learning). However, I leave you with this thought. When I met Greville Rumble, a leading expert in this field, I jokingly asked him to summarise his book on the economics of distance education by answering the question 'Is it cheaper?' in one sentence. He did it in two words, 'It depends.' It is up to us as researchers and evaluators to determine **upon what** it depends. In what circumstances, in what contexts, using what media, teaching what types of students, is open and distance learning cost-effective?

Evaluating student outcomes

In most ODL systems the measurement of whether adequate learning has taken place, and whether some students performed better than others, has usually been left to the formal exams and assessment system. However, there are a number of key ways in which research has attempted to follow-up the teaching to see what impact the ODL experience has had upon students, their family, their community and even on society in general.

In comparisons with other teaching methods

The IT training is a case where standardised tests would have been used to make comparisons between the learning that has taken place in different situations.

In a study carried out in the UK Open University, economics students were compared with undergraduates who were studying economics full-time at a conventional university. The students were taking rather different courses but a standardised test of economic knowledge was administered, that was independent of any curricular variations between the two types of institution. (Lumsden and Scott, 1980)

In cases where there is no assessment

On some courses there is little or no formal evaluation. These tend to be courses aimed at groups who have little prior experience of education, for whom assessment might be seen as threatening (for example, basic literacy courses); life skills courses

(for example, the care of babies); or leisure courses (for example, music appreciation).

In these cases the researcher is often required to carry out follow-up studies to see whether there have been appropriate changes in behaviour or attitudes. For example, in one study at the UKOU people who had bought a study pack on energy-saving in the home were contacted several months later to see whether they had carried out the energy-efficiency measures that had been specifically recommended (in the UK this might involve insulating their roofs or double-glazing their windows against the cold) and whether their fuel bills had gone down. In another study, young mothers from deprived inner-city areas in Glasgow who had taken short community courses were followed up to see what impact the courses had had on their lives and those of their children (Farnes, 1988).

This approach was part of the evaluation strategy with the maize farmers we introduced in Unit 5. The pre-and post-tests were used to see what had been learned from the teaching material. Tests could also be carried out some time later to see what knowledge had been retained.

Following up successful students

The ‘outcome’ does not necessarily end when a student gains a qualification from an ODL course. There may be concerns about whether the qualification is seen as valid in the wider society, whether the student goes on to use it to improve their career, etc.

Mail surveys of UKOU graduates have been carried out to measure the long-term outcomes for individuals following an extended period of successful OU study (Swift, 1982; Woodley, 1988). These studies have looked at occupational outcomes such as:

- Was the student studying for vocational reasons?
- What changes have occurred in the student’s employment status and income?
- To what extent were these due to their ODL study?
- What barriers have they faced when trying to improve their careers?
- Do would-be employers value the qualifications they have gained?

They have also looked at educational outcomes such as:

- Have the students been accepted for further study at other educational institutions?

- Have students been able to use their qualifications to gain admission to professional bodies?
- Have their qualifications been accepted as being on a par with those gained through face-to-face study?

And on a personal level:

- Has the course led to a growth in affective dimensions such as self-confidence?
- Has the course improved cognitive skills such as the ability to synthesise data from several sources?
- Has the course led to better social skills such as leadership or the ability to communicate with others?

The recognition of UKOU qualifications has also been approached from the other direction. Surveys of employers in large organisations have been carried out to establish what they think of the standing of the UKOU degree compared to those from conventional universities and how they rate UKOU graduates in terms of their knowledge and their personal attributes. (McIntosh and Rigg, 1979; Kirkwood et al, 1992).

Looking at our pen-portraits, I can imagine *Venkamma* wanting to do follow-up studies of the prisoners after they left prison to see whether there were any long-term effects from their ODL courses. She might also want to study the attitudes of prison staff and future employers.

Other, unplanned, outcomes

Researchers should always be aware that educational programmes can have side effects that were not necessarily foreseen by their designers. Some of these side effects may be negative, such as the potential strains placed on personal relationships when a partner spends all their free time on their studies, or develops new interests or personal characteristics as a result of their studies. Other effects are more positive and many of these involve additional uses of the materials, thus increasing the output from the original investment in the production of ODL materials. For example:

Some research studies have shown that ODL materials have been used, whether properly acknowledged or not, by teachers on other courses in other institutions (Moss, 1979; Glaister and Carr, 1986).

Others show that ODL materials are passed on to other learners (Stainton-Rogers, 1984).

When parents are seen to be studying this can have measurable positive effects on the educational motivation of their children (Fenster, 1982).

By definition, these outcomes are unplanned and so researchers have to be alert. For example, *Venkamma* might find that the prison staff are also learning from the ODL material. The techniques taught to the maize farmers may get passed on to other villages by word of mouth. It is up to the researcher to be aware of such possibilities and to judge whether they are important.

Overall system aims

Your institution, or the one that you are researching, may be doing very well on all the measures that we have mentioned so far but still be failing as a system because it is not meeting some fundamental goal that is part of its mission statement.

For example, The UKOU is committed to greater 'open-ness' and to an increase in social equity. Unlike any other British universities, there are no entry qualifications and students are admitted on a first-come first-served basis. However, just opening the door does not make an institution truly open. Consequently much of the system evaluation work has been devoted to investigating how far the university has had an impact on groups that have traditionally been under-represented in higher education. These groups include women, ethnic minorities, working class people, people with disabilities and those with low educational qualifications.

One type of research has focussed on knowledge and awareness among these groups. Surveys have been carried out among the general public to see whether they have heard of the UKOU and if so, whether their knowledge about it is accurate (Swift, 1980). It is common to find that many people who have heard of the University and especially those from disadvantaged groups, still think that need to have already passed school exams or that they would have to attend the University full-time. This sort of research helps to shape future advertising campaigns.

Another wave of research concentrates on those people who show an initial interest in the University by sending for a prospectus, or even go as far as applying, but then decline the offer of a place. Again this happens disproportionately amongst the disadvantaged groups and we need to know what barriers are preventing their participation. One key barrier was found to be the cost of the courses and the University has taken steps to increase its financial assistance fund and to allow students to pay by instalments. Another barrier was the compulsory one week residential school on many courses. Now there is a much more generous excusal policy – for example for mothers with small children – and also more and more courses are offered without a residential course.

A third stage of this type of research is to measure the representation of disadvantaged groups among the student body and to look at their progress they

make on the courses. One study showed that the UKOU student population matched the national population in terms of the percentage who were from ethnic minorities but their progress as students was relatively poor (Woodley, 1992).

A final stage is to see what happens to these people after they have left the institution. Has the disadvantage been eradicated? Does the woman who graduates when she is aged 45 gain a job commensurate with her qualifications? Was she aiming for such a job? Did she experience barriers due to her age rather than her gender? These topics can all be explored in follow-up studies.

Activity 5 15 mins

Are we meeting our goals?

Think about your own institution.

1 Does it have any fundamental goals that should determine its eventual success or failure? (These may be written in to its charter or mission statement.) They could be in terms of:

- the characteristics of the students (e.g. programmes aimed at improving women's education)

geography (e.g. the aim might be to target rural areas)

careers (e.g. the aim might be to get people to become nurses), etc.

2 If so, what research would be needed to see whether you are meeting these goals?

The feedback to this activity is at the end of the unit ➔

Policy evaluation

While all of the research we have considered so far is related to policy making, here I am talking about a more direct link.

Some research in the policy area can be termed 'formative evaluation'. This is where the institution is considering taking some action but is using research in an attempt to take a better-informed decision.

Market research

Formative evaluation may take the form of market research. For example, the institution may be considering creating a particular course and want to know whether

it will attract students. Surveys of prospective students and employers have been carried out to measure the likely demand for possible new courses.

Surveys on policy options

Surveys of current students have also been used to sound out opinion on various policy options facing the institution. For example, one UKOU study tested the reactions of students to the possibility of reduced tutorial provision on higher level courses (Thorpe, *et al*, 1986).

Monitoring

Policy evaluation has also taken the form of monitoring. The UKOU carries out regular surveys to monitor the financial impact of study on its students, thus gauging the effects of fee increases, changes in levels of assistance from employers, the effects of the University's own financial assistance schemes, etc (Blacklock, 1982). Other survey data on the ownership of televisions, cassette recorders, home computers, etc, can assist course design and planning (Grundin, 1983; Kirkwood, 1997).

The impact of policy changes

Research has also been used to evaluate the impact of policy changes. In one study, researchers looked at the effects of a UKOU policy to 'de-register' undergraduates who had made no progress with their studies over a number of years (Heron, *et al*, 1986). The results showed that one unforeseen consequence of this policy was that the University had de-registered many of its own graduates! These were people who had gained Ordinary Degrees but who were going for a good Honours degree. If the students thought that they were not going to gain a good final grade, they were withdrawing from their courses.

Experiments or pilot schemes

Finally, policy evaluation studies have also taken the form of experiments or pilot schemes. One of the best-documented involved the admission of younger students to the UKOU in the 1970s. The University had set its minimum entry age at 21 but the Government saw the University as a way to expand opportunities for school-leavers. It was agreed that limited numbers of younger students would be admitted on a trial basis and the outcome evaluated over several years before making a final decision (Woodley and McIntosh, 1980).

The outcome of this research is instructive for researchers. By the time the longitudinal study had been completed, there had been a change of government and

the pressure to take school-leavers had been removed. It is also noteworthy that the University voluntarily reduced the age limit to 18 when faced with declining applications from the older age groups. In the last few years the number of students aged fewer than 21 has increased rapidly, ostensibly because of increased fees and debts in conventional universities.

Organisational evaluation

Just like any other large and complex organisation, universities, colleges and even schools can and have been evaluated in terms of their internal arrangements and procedures. Are they being run efficiently? Could they be run better? Some of these evaluation activities go beyond the scope of the generalist researcher and require specialist professional skills. They include investigating:

- standards of general management within the institution, including consultation and communication at all levels
- financial management
- 'organisation and methods' procedures for course production
- are teams an efficient way to produce courses?
- are the course materials delivered to students on time?

Activity 6 10 mins

Evaluating efficiency in your organisation

Note down any other activities that occur in your own organisation that could be described as evaluation activities to improve organisational efficiency.

The feedback to this activity is at the end of the unit ➔

Programme evaluation

Programme evaluation sits in between system and course evaluation. It draws on ideas and techniques from both. I will just comment briefly on one or two aspects where it differs from them.

A lot of practitioner research in ODL consists of the measurement of student progress rates. This is a complex issue and it is taken up in detail in the handbook

on programme evaluation in this series. In the case of a single course, there are different ways of deciding the student's status on the course, as Table 5 shows.

Table 5 Different ways of deciding a student's status on a course

Research issue	Possible measures
Have they actually joined the course?	Have they registered? Have they paid the fee? Have they sent in their first assignment?
Are they still on the course?	Have they formally withdrawn? Are they still attending teaching sessions? Are they still submitting assignments?
Have they been successful?	Did they study all the material? Did they pass the continuous assessment? Did they sit the final exam?

When a student is registered on a programme of study, then the difficulties multiply. Not only do you have to look at progress on individual courses, you also have to assess which of the successful courses count towards which, if any, of the programmes the students is registered for.

Measuring the impact of qualifications gained

If a student has successfully completed a programme of study that leads to a specific qualification, such as a Certificate in Pharmacy or a Diploma in Accounting, then any follow-up study should focus on measuring occupational outcomes that are likely to arise from that particular qualification. However, there are problems when trying to prove whether a given outcome arose directly from that qualification. Many students, and particularly mature students, have skills and experience prior to the course. Therefore it is a good idea to try to draw a comparison group from the general population of people with similar backgrounds but who have gained some other qualification, or none at all. If this is not possible you should ask the student directly. They are often good judges when it comes to knowing the critical factor that got them their new job.

Another problem concerns time. In principle it is a good idea to allow a reasonable amount of time to elapse so that the people have a chance to try to use their qualifications in the job market. However, if you leave it too long, they may gain another qualification which may actually be the key factor in their success. Also, the

longer you leave it, the more likely they are to have moved away and so they won't receive your survey!

In the next section we move on to course evaluation, much of which involves asking students for their opinions. When we are looking at whole programmes such evaluations can be extended to ask students about the total learning experience, about linkages between courses and about the order in which courses should be taken.

Course evaluation

How do you know what to change?

I shall start with an example from classroom teaching. Imagine that you are a teacher in a classroom. You have prepared a lesson on food hygiene, say. You have written a few notes to remind you of the main points and you talk about the subject for 30 minutes. Occasionally you draw something on the blackboard. You notice that most of the students are taking notes, some seem bored and one appears to be asleep. When you ask if there are any questions it is the usual bright girl who puts her hand up. In the end of term exam, everybody avoids the question on food hygiene.

Now go forward to the following year. It is time to give the food hygiene lesson again. Do you just blow the dust off last year's notes and teach the same lesson again, or do you try to improve the lesson? How do you know what to change? If you change it, how do you know that you have improved it?

Now, you might say that as a talented, conscientious teacher you would probably have been carrying out a process of self-evaluation either consciously as a 'reflective practitioner', or subconsciously, just as any other good performer or artist might do. You may even have talked to the previous students to see what had gone wrong.

So, there are various options to help a classroom teacher improve their teaching. But what about in ODL?

How do you know what to change in ODL?

When it comes to evaluating ODL teaching, I would maintain that ODL brings with it big advantages to the process, as well as the inevitable disadvantages.

Disadvantages

Firstly, as a distance teacher you may never meet your students. They will be studying invisibly so you will not be able to see that they are getting bored or falling asleep. If the class are misled by one of your teaching points and all the learners

develop a particular misconception, you will not be able to detect that when it happens – you may only see it in their answers to an exam question. If one individual is struggling, you will not be able to take time to help them while the rest of the class carries on with an exercise.

Secondly, changing your ODL course may be a difficult and expensive process. For example, you may discover that students have been confused by a TV programme that you have made, but you may not have enough money in your budget to re-make it.

Advantages

The big advantage with a distance education course is that you generally have a 'product'. It is usually print but it may be a TV or radio programme, a piece of computer software, etc. Whatever form the product takes, it means that it can be scrutinised and judged during the development stage and afterwards. This will lead to revisions and, we hope, to improvements. The final product that then goes out to all students should be of a demonstrably high quality.

Course evaluation tends to be a major strand of institutional research in open and distance education. Its aim is to improve the quality and effectiveness of the teaching and learning. This type of evaluation tends to be divided into two types. Firstly there are **formative** evaluation procedures. These seek to provide information that can be used during the process of **developing** materials or learning experiences. Then there is **summative** evaluation where you gain information about how well the **'finished'** instruction has worked in normal use (Scriven, 1967).

In practice, it is often impossible to draw such a clear distinction. For example, you may collect 'summative' data on Course X that becomes 'formative' data for the design of Course Y. However, it is useful to attempt to consider them separately.

Formative evaluation

Critical commenting

Because ODL material tends to be a product, it is open to inspection at a very early stage. This is particularly the case when course authors work in teams.

For a number of reasons it has become traditional in many sectors of ODL for courses to be produced by teams rather than single teachers. During this process, **peer review** of draft materials is commonplace.

At an informal level this may simply involve one or more colleagues reading, listening to or looking at draft materials and providing comments in terms of the suitability of content and the style of presentation. On the other hand, arrangements

may be made for systematic critical commenting, with teachers or writers reviewing the materials prepared by all of the others in the team working on the same course or programme.

Here there is the potential to improve not only individual teaching materials, but also the overall style and content of instruction. The reactions of colleagues can also be augmented by adopting the more formal procedure of inviting one or more experts in the field to act as **assessors** to comment on the draft materials and to oversee the whole process through to validating the assessment procedures and the standards of any awards that are made.

This is a process of evaluation but it is one that has a very loose structure and that is difficult to be prescriptive about. For example, the suggestions for change that have been made by a single expert may be accepted completely, or in part, or they might be rejected. If more than one expert has been consulted, or if you are working in a team, then there are likely to be conflicting views on what should be changed.

What actually gets changed might depend upon very practical considerations. For example, the external commenter might think that the course would be improved if video-cassettes were used, but this might have to be ruled out on the grounds of cost. When it comes down to more basic matters such as the order that topics are introduced in a course, then this is a matter for argument and negotiation. The final judgement will have to be made by the person with ultimate control, often the course team chairperson.

So the process is one where diverse opinions are resolved into action. The aim is to produce a superior version of the course through group discussion and group agreement.

All of the processes mentioned above have been used during the construction of this module. The module has also been ‘pre-tested’ in line with the suggestions made in the next section.

Developmental testing

Developmental testing (also called piloting) takes place during the preparation phase of a course and involves trying out draft teaching materials with ‘students’. The feedback obtained is used to guide writers’ revisions to the materials before they are committed to print or tape (Nathenson and Henderson, 1980). Such testing may range from a fairly informal student trial of a single piece of teaching, to an elaborate procedure for testing draft materials for a whole course.

It is usual to recruit a group of volunteers who, as far as possible, resemble the actual students who will eventually be taking the course. The ‘students’ then study the draft materials in the usual manner and may be asked to undertake any other requirements, for example submitting assignments, attending tutorial sessions, etc.

and possibly sitting an examination upon completion of the course. Their comments on, and reactions to, the teaching can be collected by means of questionnaires, interviews, psychometric tests or observations. These are then fed into the process of revising the course materials for final presentation.

This is a very 'rational' approach to course improvement and one that it is clearly derived from industry. A simple example would be a manufacturer trying to decide whether to produce a banana-flavoured or a pineapple-flavoured chocolate bar. He makes some of each and tries them out on school children to see which they prefer. However, the developmental testing of teaching materials is a little harder. Key problems involve:

- finding and recruiting an appropriate group of volunteers with the same educational backgrounds and interests as the prospective students
- motivating them to study the material in a realistic way, rather than just skimming the material
- using a version of the materials that is virtually complete, so that it is a true test, yet not so complete that changes would involve too much time and money
- collecting and presenting data that clearly suggest actions that will definitely improve the material for the majority of learners.

Experience of developmental testing at the UKOU (Henderson, *et al*, 1983) indicates that the procedure is good for the revision of materials within the overall structure of the course, and that these can be of benefit to both course writers and students. It is, however, not particularly suitable for enabling major structural changes to be made to the course.

One particularly successful strategy could be described as part formative and part summative (Henderson, *et al*, op. cit.). This involved collecting feedback from actual students and tutors on a short-term 'published' version of course materials. While the materials were low-cost, interim versions, the students were actually studying for credit and so their experiences and reactions were genuine. Their feedback was used to inform revisions to be made for subsequent presentations.

Activity 7 60 mins

Formative evaluation in your institution

If it is possible, talk to some of the ODL course designers in your own institution and ask them:

1 What, if any, formative evaluation they do.

2 What form that evaluation takes.

3 What problems they experience in doing formative evaluation.

4 How useful they feel it is.

The feedback to this activity is at the end of the unit ➔

Knowing your student

So far we have talked about who the students are in relation to the mission of the institution and in terms of whether potential students wish to study what you intend to offer. There is also a fairly obvious case to be made that you should know who your students are in order to teach them more effectively. To take a very obvious example, it would be silly to write for learners with a reading age of 16 if your prospective learners actually have an average reading age of 9.

Activity 8 30 mins

Knowing your target audience

In this activity you are going to explore why it is important to know your target audience, and how you might find out about them.

1 Read *Woodley* and *Ashby* from your *Resources File*.

2 Now think about how this might apply to Venkamma in the pen-portraits. You will recall that she has been asked to put a report together on the potential use of distance education in prisons. As part of her report she has been asked 'to put together a profile of the educational level of the prisoners and to find out what subjects would be the most beneficial for the prisoners'.

3 How would you recommend that *Venkamma* should proceed?

The feedback to this activity is at the end of the unit ➔

Summative evaluation

The 'product' of course development in distance education is not just the materials that are delivered to students by one means or another. Rather it is the interaction of learners with those materials and other resources, possibly including tutors and fellow students (Thorpe, 1979). Summative evaluation procedures are intended to

provide information about this totality – a course or materials when they are used with actual students in their intended social settings.

Feedback from tutors

Many ODL systems use a network of local tutors to act as mediators between the course producers and the learners. These part-time tutors are not generally involved in the development of teaching materials for the courses they tutor. Their role is to support courses by running tutorial sessions (face-to-face or by means of telecommunications), marking assignments, teaching at residential schools, etc. Whereas students can usually choose whether or not to provide feedback, it can be made part of the tutor's contract that they help improve teaching in this way. Because they will meet or talk to many students, they can act as intermediaries who pass on the views of their students quickly and efficiently.

Ways can be devised to collect evaluative comments from them on a range of issues and on a systematic basis. For example they can give their **own** reactions to the teaching materials, and also accounts of problems their students have encountered in their studies and assignments (Ryan, 1982). The experience of tutors in making the course actually work can provide particularly useful information for subsequent modifications to or adaptations of the teaching materials and instructional arrangements.

Feedback from students

Feedback can be gathered directly from ODL students while they are taking a course or shortly after its completion. In some cases it may be possible to implement certain revisions during the presentation of a course as a result of students' comments. For example, by providing an extra printed supplement to update information or to clarify a problem area. More frequently, the student feedback from one presentation of a course helps to determine revisions for subsequent presentations. After a course or programme has been presented in substantially the same form to many cohorts of students, feedback may be collected to inform decisions about remaking or replacing the course. Information gained by course writers about the success (or otherwise) of approaches and strategies employed in their distance teaching may prove to be of great value when they prepare further courses.

Mailed paper questionnaires are the most widely used method for collecting feedback from students. The types of information collected tend to fall into the following areas:

Extent of utilisation

Students may be asked to indicate which parts of the course they have studied and which they have omitted; which components they have used (e.g. whether they attended tutorials); how much time they have spent on their studies, etc. They may also be asked to report on any problems they have encountered in obtaining the course materials or in gaining access to resources such as the set books.

Overall view of the teaching

They may be asked to rate the teaching of a particular unit of instruction in terms of its interest, perceived relevance or usefulness, level of difficulty, etc. They may also be asked to rate individual components of a course (e.g. teaching text, audio-tape, etc) in terms of their relative usefulness.

General style of presentation

Course writers may be keen to receive students' comments on the style of presentation, both in terms of layout, design, etc. and the coherence and clarity of the teaching. Perhaps more importantly, students could be asked to comment on the extent to which the teaching style or strategy had enabled them to become actively engaged in learning from the materials.

Specific content issues

It is important to know how well the teaching has achieved its aims and objectives. So information about students' problems with key concepts, ideas and relationships, etc. can be of great value to course writers when it is time for revisions to be made.

Naturally many students will show their dissatisfaction with a course by simply dropping out from it! High drop-out rates have long been a concern for ODL practitioners and a lot of research has looked at this topic. For example, there have been many postal surveys asking students why they dropped out of courses.

However, these surveys have tended to produce very low response rates which makes one suspicious about whether the respondents are typical of the larger group of drop-outs. The reasons given for dropping out are also of questionable use. They are often vague statements such as 'I did not have enough time for study' or very practical reasons such as 'my child was ill'. The latter types of reason may be valid – after all distance learners have to cope with the competing demands of work and family. However, suspiciously few mention study difficulties.

A more wide-ranging approach to looking at drop-out is offered in the next reading.

Activity 9 30 mins

Dropout

1 Read *Woodley and Parlett* from your Resources File.

2 What research approach do the researchers seem to be advocating?

The feedback to this activity is at the end of the unit ➔

Cross-sectional studies

So far the focus of the research that we have discussed has been the learner, the course or the organisation. Another type of evaluation work has involved the study of a particular innovation or component used across a number of courses. The aim of such studies has been to establish the effectiveness of a particular strategy or teaching medium or to find out the circumstances in which its use is most appropriate.

Some research has focussed on particular teaching components such as **audio-visual media** (Grundin, 1985), **tutorials** (Kelly, 1981; Kelly and Swift, 1983), **computer assisted learning** (Scanlon, *et al*, 1982) and the use of **project work** to encourage greater independence in distance education (Henry, 1979). This type of research has involved collecting information from students on their access to and use of particular components, as well as getting their views on the contribution made to the teaching and the overall effectiveness of courses.

Developmental studies

A final type of research that we will mention returns the focus back to the learner. Some evaluation of teaching effectiveness has taken the form of research into the understandings developed by students as a result of their studies. Qualitative changes in the understanding of key concepts and relationships formed the focus of a study of UKOU social science students (Taylor, *et al*, 1981a and 1981b), based upon a method for evaluating the content of students' learning developed in Sweden by Dahlgren (1978).

The study was concerned with finding out not **how much** students knew, but **what they** understood about particular concepts and principles. A group of university students taking an introductory social science course were individually asked a set of questions about key concepts and principles taught in the course. They were interviewed before commencing their studies and again after completion of the course. The findings of this study informed the writers of the replacement course, not

only by identifying problem areas in the teaching, but also by illustrating the different levels of pre-course understandings that students were likely to have.

Issues for research

We shall finish this unit with an activity which will help you to think about the wide range of research questions in ODL.

Activity 10 30 mins

Issues for research

The table overleaf lists a range (but there are others) of areas in which you might wish to research.

For each area, write down one or more research questions that could be explored for that area.

Accessibility	
Assessment	
Costs	
Information and guidance	
Learning	
ODL	
Quality assurance	
Resources and learning materials	
Retention	
Students	
Technology	
Tutoring	

The feedback to this activity is at the end of the unit ➔

Summary

In this unit we have mapped out the range of research areas and topics that an ODL practitioner might consider. From your notes you should be able to begin to think about what research project you are going to carry out, or what sorts of research you might want to consider commissioning.

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Feedback to selected activities

Feedback to Activity 2

1 What could Yahaya tell from the bare figures?

- The University began with two courses in Year 1 with very low student numbers. (Perhaps the numbers were low because they were deliberately just trying the courses out on a small group. Perhaps their advertising was not very good so nobody knew the courses existed.)
- The number of courses on offer built up steadily, and then took off in the fourth year.
- The number of students increased dramatically in the second year and again in the fourth year.
- The number of staff went up in line with the number of courses.
- So, the general image is of a system that is growing.

2 What else might Yahaya need to know?

- To know whether course output has really been growing, and how much, he would need to know more about the courses themselves.
- What is a 'course' at the university? ODL courses vary greatly in size, so it is possible that the twelve courses in Year 4 actually represent the same number of 'credit points' as the six courses in Year 3.
- The courses may also vary in terms of level. Some may be basic introductory courses, while others are very specialised high-level courses.
- It is also useful to know the 'age' of courses. For example it might be the case that Year 3 saw the introduction of just one new course. However, it is possible that all six were new and the previous five had all been dropped.

There are similar questions to be asked about the students.

- Some of the students will be taking one small course only, while others are taking the equivalent of a full-time student workload. Rather than simply 'counting heads', it is often more sensible to count in terms of a standardised course, e.g. full-time equivalent courses (FTEs).
- *Yahaya* would also need to know how many were 'new' rather than 'continuing' students in each of the years. How good is the system at retaining students?
- From Table 3, one might assume that each course starts at the beginning of a year and lasts for a year. However, many institutions have moved away from this model. Many courses have several starting dates and in some cases students can enrol whenever they want. So, in practical terms, the same student could occur several times in a given university year.
- Staff numbers will also need to be elaborated.
- Who are these people? How many are teachers? How many are managers, administrators, secretaries, etc?
- How many are working full-time? How many are only working part-time? (Many open universities employ a relatively small number of full-time academic staff who write the course material and a large numbers of part-time tutors who hold tutorials and mark assignments).

All of these questions will require the university to provide *Yahaya* with extra information. They may be unable or unwilling to do so and if this is the case he will have to proceed with extreme caution. He has been asked to make comparisons with two technical institutes and a teachers' college, yet the validity of such comparisons will be extremely limited if the institutions cannot be shown to be measuring their output according to the same rules and criteria.

Feedback to Activity 3

1 You would expect the number to be going **down.** This indicates that there are fewer staff working on each course, so the staff cost per course is going down.

2 The last row in Table 4 should now read:

Number of staff per course	5	10	10	7

The figures show a healthy drop in the fourth year.

Feedback to Activity 4

1 What would you want to know about how the experiment was conducted?

You might have wanted to know such things as:

- how were the two samples selected? In an ideal experiment, half of the teachers would be allocated at random to the face-to-face group and half to the ODL group. If not, then there are always dangers of self-selection. It might be that those who could come to the face-to-face were more likely to be teachers in urban schools, or those from rich schools that could afford to bring in extra teachers to cover for absences
- how were the two versions of the course taught? If they were both taught over a short time period, were the ODL group allowed the equivalent amount of time off work to do their studies?
- ideally the two groups would take identical tests or examinations to ensure that those who passed had demonstrated the same levels of skills. However, these skills need to be used if they are to be of benefit. Follow-up studies should be contemplated to see whether the teachers had the IT equipment in their schools, whether they taught the skills to pupils, and indeed whether they continued to be school-teachers at all!

2 What evidence would you want to find, probably in the technical appendices to the report, that would give you confidence in their calculations of cost?

You might have wanted to check whether **all** costs were taken into account, e.g.:

Among the face-to-face group:

- the rental of classrooms
- the salaries of the face-to-face teachers.
- the travel and accommodation costs for the students
- the development of the face-to-face curriculum
- the cost of replacement teaching staff
- the costs of assessment.

Among the ODL group:

- the development of the ODL curriculum
- the production and distribution costs of the ODL materials given to students
- possible loss of earnings while doing part-time study
- the costs of assessment
- extra costs such as postage, phone calls.

These lists could be added to, but it is clearly complicated and it can include costs to the system ('social costs') and costs to the student ('personal costs').

3 What would you want to know about the 'effectiveness' measures?

Ideally the two groups would take identical tests or examinations to ensure that those who passed had demonstrated the same levels of skills. However, these skills need to be used if they are to be of benefit. Follow-up studies should be contemplated to see whether the teachers had the IT equipment in their schools, whether they taught the skills to pupils, and indeed whether they continued to be school-teachers at all!

Feedback to Activity 5

Your answers will clearly be dependent upon your institution. You may have found that your institution only has very general goals or that it has some that you were not aware of.

As an evaluator you may have to transform these goals into ‘performance indicators’ or ‘PIs’ so that you can actually measure whether they have been achieved, or to make comparisons with other institutions.

These PIs are almost always in numerical form. The module on quantitative research methods will be useful if you want to pursue this topic.

Feedback to Activity 6

Here are two I thought of:

- Is the turn-around time for marking assignments satisfactory?
- Are the grades that tutors give for assignments being monitored in order to maintain the same standard of marking for all students?

You probably thought of some others.

Feedback to Activity 7

If you have managed to carry out this activity I am sure that you will have many stories about the problems and successes – teachers who refuse to accept that there is anything wrong with their materials and discoveries that nobody could understand a certain exercise because of typing errors.

Feedback to Activity 8

Some information about previous education might be on the prisoner’s records. If there are already education schemes in the prison, the teachers might be able to give her sufficient information.

Perhaps, she will have to gather data directly. Her boss has suggested semi-structured interviews. This technique involves interviewers having a few basic standard questions that they can then improvise around, depending upon the answers given to the standard questions. As such, it may be appropriate for gathering educational life-histories and possibly for exploring the educational interests of the prisoners.

For a profile I would recommend a more structured set of questions. These might include:

- At what age did you leave school?
- What type of school did you attend?
- Have you done any courses since leaving school?

- Do you have any qualifications? If so, what are they?

If the prisoners are literate, these questions could be asked via self-completion questionnaires. There would also be possibilities of measuring intelligence or educational attainment using standardised psychometric tests that have population norms for comparison.

When it comes to the question of what subjects would be most beneficial, the interests and aptitudes of the prisoners would only be one input. *Venkamma* would have to consider the views of prison education officers, those responsible for re-settling prisoners back into society, experts in the labour market and distance education providers.

Feedback to Activity 9

The paper involved a combination of methods including detailed statistical analysis, an understanding of the subjective process of dropping-out and an awareness of the different policy options and their likely impact. They appear to support multiple methods and an understanding of the personal, social and political context surrounding the phenomenon of dropout.

Feedback to Activity 10

Below are some of the research questions that occurred to us. Yours may differ, since there is a vast number of questions that you could research under each of these headings.

Area	Possible research questions
Accessibility	How can ODL be made more accessible to students with characteristic X? What factors affect the accessibility of ODL to different types of students?
Assessment	What sorts of assessment methods work best in ODL?
Costs	How do ODL costs for courses of type X compare with other ways of delivering the same course? What factors affect costs in ODL?
Information and guidance	What are the information and guidance needs of ODL students? How effective is method X as a form of information and guidance? What types of advice and support are most effective at different points in a student's studies?
Learning	What factors most affect successful learning at a distance? How can ODL students be helped to become more effective learners? What can be done to promote deep learning in ODL students? How do different student behaviours affect the amount they learn?
ODL	How effective is ODL? What factors affect the effectiveness of ODL?
Quality assurance	What are the most effective ways to assure quality in ODL systems?
Resources and learning materials	What design factors produce successful ODL materials in media X? What training and development do course designers need?
Retention	What can we do to help retain students on courses? Why do students drop-out of course X?
Students	What are the characteristics of the target students for course X? What are the needs of the target students for course X?
Technology	Which combinations of technologies are most effective for …? What is necessary for e-learning to be effective? Is X technology as effective as Y technology?
Tutoring	What training and development do tutors need? What factors ensure successful tutorials? What skills do tutors need to be effective? What tutor behaviours are most effective in supporting students? What factors determine successful online discussions? What is the role of the tutor in e-learning?

External forces that shape the evaluation agenda

UNIT

7

Unit overview

In this unit we look at the social, political and environmental factors that influence the research agenda and we introduce some categories for distinguishing between certain styles of research.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Identify some of the factors that influence whether research is done at all, how it is done and how it is reported.

2 Apply this to your own context.

Introduction

Doing practitioner research involves making choices. We have just listed a vast array of possible topics in Unit 6 and in Unit 5 we talked a little about different methodological stances. However, these choices are often restricted by other external constraints and pressures. In this unit we want to look at these other influences that arise from who you the researcher are, your values, your position in the work-force, etc, and from the social and political situation in your society. In particular we are concerned here with issues of power and control and how these shape knowledge.

MacDonald’s typology

MacDonald (1977) outlined three forms of evaluation that were distinguished by the different power relations that can exist in evaluation work. He called them ‘bureaucratic’, ‘autocratic’ and ‘democratic’.

Bureaucratic evaluation

With this type of evaluation, researchers offer unconditional service to the funding agency. They accept the values of those who hold office and offer information that will help the policy-makers to achieve their policy objectives. The techniques used in the research must be credible to the policy-makers and not lay them open to public criticism. The researchers have no control over the use that is made of the information and their research report is owned by the bureaucracy.

Autocratic evaluation

Here research is a **conditional** service to the funding agencies, offering external validation of policy, provided that the recommendations emerging from the research are acted on. Researchers act as expert advisers, deriving the values from their perceptions of the constitutional and moral obligations of the bureaucracy. The researchers strive for neutrality and objectivity. Their contractual arrangements guarantee non-interference by the client and, while the bureaucracy gets its report, they the researchers are free to publish the results in academic journals.

Democratic evaluation

In this type of evaluation the researchers try to represent the interests of all groups affected by the educational programme, rather than just the funding agency or the academic community. The aim is ‘an informed citizenry’ and the evaluators act as information brokers between the different groups. Their techniques of data-gathering and presentation must be accessible to non-specialist audiences. Informants are given control over the researchers’ use of the information. The main activity is to collect definitions of, and reactions to, the educational programme. The final report does not contain recommendations.

This typology arose from MacDonald’s work as a university academic where he was hired by **external** agencies to study a variety of innovative programmes in schools. Elsewhere I have sketched out a similar typology that was also based on power relations but was grounded in my own evaluation work and experience and described various approaches adopted by **internal** evaluators (Woodley, 1991). I

identified market, liberal and radical evaluation. These are discussed in the next section.

Woodley's typology

Market evaluation

Here evaluation corresponds to the sort of research done by a market research department within a profit-making manufacturing company. Students are seen as customers and research is devoted to maximising their number and their throughput. Research reports will be confidential to the institution.

Liberal evaluation

With this type of evaluation the researcher is the student's friend. Information is gathered on why people drop out, what they think is wrong with the course, what extra support they need, etc, so that the system can be made better for them. The research is likely to be shared with organisations such as student unions.

Radical evaluation

This can take several forms but essentially it involves the evaluator taking a critical stance concerning what sorts of people become or don't become students, what they are taught, which students make better and worse progress, and the effects on their lives. The evaluator will want to publish the results in theoretical journals and in newspapers in order to maximise their impact.

Each of these three evaluation strands can exist within the same institution and the same evaluator can be carrying out research in each of the modes. Even more confusingly, the same research study can be operating in all three modes! Nevertheless it should be useful for you to consider all three, and those put forward by MacDonald, in relation to your own position.

Activity 1 10 mins

Your role as a researcher 1

1 Which type best matches the way your work as a researcher? (Use either the MacDonald, the Woodley or both systems to answer this.)

2 Which one, if any, predominates within your own institution?

3 Has it changed over time?

The feedback to this activity is at the end of the unit ➔

Activity 2 15 mins

Your role as a researcher 2

Spend 15 minutes writing me an imaginary letter in which you explain your rights and duties in relation to the two typologies.

The feedback to this activity is at the end of the unit ➔

Summary

This unit has offered you the opportunity to consider how your research agenda might be shaped by external factors. It should also have helped you to consider the position that you want to take up as a researcher.

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Feedback to selected activities

Feedback to Activity 1

The best way that I think I can provide feedback to this is to recall my own experience so that you can draw comparisons with your own.

My own work

As an institutional researcher with academic conditions of services I have certain duties and rights:

- I have a duty to carry out research that is considered to be high priority by my institution
- I have the right to carry out personal research
- I have the right to publish my results in academic journals
- I am encouraged to tender for and carry out research projects for government agencies.

The institution

In terms of the predominant mode of evaluation in my own institution, I would say that it has changed a great deal over the lifetime of the Open University, UK. Most if not all of the types of evaluation listed in Unit 6 have been attempted over the years, generally carried out by members of the Institute of Educational Technology (IET), the research and development section of the University.

An outsider might gain the impression that there has been a comprehensive, carefully integrated evaluation programme. However, I would contend that the programme has been patchy and that its development has been affected as much by external and internal pressures as by considered debate. It is worth trying to document how the balance has shifted between my three types over the years, and to consider the causes.

'Market evaluation' was of key importance in the early years when the University's viability was in question. Was it attracting sufficient students and was it producing graduates in a cost-effective fashion? This has been a continuing concern but takes on greater importance in years when the flow of new applicants slows down or when, as in 1990, the Department of Education and Science mounted a review to see how well the OU is performing. This is when evaluation clearly takes the form of 'self-defence' rather than 'self-improvement' (Woodley, 1999). Here the role of the institutional researcher is to provide the information that the University can use to convince its paymasters, essentially the government, that the high level of state-

funding is justified. In recent years this has included attempts to demonstrate to the National Committee of Inquiry into Higher Education (the Dearing Report) that, among other things, the OU produces large numbers of graduates in maths, science and technology; that its graduates perform well in the labour market; and that it attracts large numbers of students from educationally disadvantaged groups.

Market evaluation has grown in importance in terms of potential student demand. Increased attention is being paid to identifying possible courses that will attract large numbers of students, that will be sponsored by employers and that can command high fees. Members of IET have been involved in such work but it has become increasingly 'industrialised' in that it has come more the job of a marketing office. This office has the resources to hire outside market research companies to carry out surveys whose aim is to find ways of maximising sales. Increasing attention has also been paid to issues of student retention because state funding is now far more related to a growth in student numbers and to student progress.

'Liberal evaluation' has been almost synonymous with course feedback. When writing on this topic in 1990, I commented that it was surprising how little effort has been devoted to it in recent years, given that providing such feedback is always listed as one of IET's primary tasks (Woodley, 1991). In 1971 large numbers of students completed detailed questionnaires on each unit or block of every course throughout the study year. By 1990 the main source of feedback came from the *Annual survey of new courses*. This was a single questionnaire completed by samples of students after the courses had finished and, as the title implies, only affects courses in their first year of presentation. I suggested that the lack of attention paid to this area had several causes.

- the great increase in the number of courses being offered
- the decrease in staff numbers in IET
- the routine nature of this work means many researchers find it boring and there were no junior research staff to delegate it to
- the type of information collected did not often lead to simple messages for course improvement and the nature of OU course production meant that very little actually could be changed in any case
- academics who have been in the OU for a long time feel that they know how to produce good courses.

However, the situation is now dramatically different. Every course is to be surveyed in its first year, in mid-term, and in the year before it is due to be re-made. This means that large samples of students will be surveyed on some 120 courses in each year – a massive increase in survey activity. The driving force has been the

Teaching Quality Assessments carried out by the Higher Education Funding Council which look for student feedback systems, systems to take action on this feedback and evidence of improvements arising from this feedback. This has further enforced the 'hegemony of survey methods' (Morgan, 1990), and has also effectively changed student feedback into a form of instrumental 'market evaluation'.

In 1990 it appeared that developmental testing had virtually disappeared, mainly for the same reasons noted above in the case of course feedback, but also because of the cost and the difficulty of finding appropriate 'students'. However, it has been revived in recent years for courses using new teaching technologies, e.g. courses that involve 'home computing', for:

- new subject areas, e.g. foreign languages
- new student groups, e.g. those taken sub-degree 'access' courses.

'Radical evaluation' has always existed on some level but enjoyed something of a resurgence in the early nineties. For example, following a Senate motion re-committing the University to the goals of widening access and of equal opportunities, much attention was paid to how many people from various disadvantaged groups such as ethnic minorities and the working class have entered the OU, what courses they took and what progress they made as students (EO, 1990). Various pilot schemes were carried out and evaluated in the regions to see how things could be improved. However, the impetus seemed to have been lost in this area with the closing of the Equal Opportunities Unit, its activities having been assumed to now be part of everyday University activity. With the need to rapidly expand student numbers, especially in science and technology, the focus shifted away from characteristics to quantity. But now things have changed again. Following the recommendation by the Dearing Report that institutions should increase educational opportunities to disadvantaged groups, this has been taken up by the present government. Institutions that are successful receive greater funding. What was 'radical evaluation' may become 'market evaluation'!

Feedback to Activity 2

You probably found that quite difficult. Life is usually too complicated to fit neatly into typologies. However, I hope that you found it useful in locating yourself and your institution, at least partially, somewhere within the complex area of practitioner research and evaluation.

Starting to map out your own research project

UNIT

8

Unit overview

At the beginning of this module I said that I hoped that you would devise your own research project to work on as you studied the other modules in this series. So far I have been trying to free your mind up in relation to research and evaluation. By giving examples of research that has already been carried out in the ODL area, we hope that I have presented a tempting array of possibilities and that you are now eager to begin to plan and carry out your own project In this unit you will sketch out the project and consider some of the implications.

Even if you do not intend to work through the rest of the modules, you might find it helpful to work through the activities in this unit.

Learning outcomes

When you have worked through this unit, you should be able to:

1 Describe, in broad terms, the research project you intend to carry out.

2 Identify the key issues to be decided before you can start that project.

Introduction

Your choice of project will be influenced by your own situation – your job, your interests, your capabilities, etc. However, on top of that, I want to guide you towards what is ‘important’. By ‘important’ I mean a topic that is:

1 Of current concern (or should be of current concern) to policy-makers

In real life only a very few research projects can be carried out, so you should try to devote your limited resources to areas that are important to your institution.

2 Researchable

However important a topic, you have got to decide whether it is practical within time and money constraints, and within the limitations of social research methods, to carry out any worthwhile research on it.

3 Can lead to improvements in ODL practice

The research should be able to lead to action. This means both that the object being studied **can** be changed and that you are in a position to influence that change.

Your table of research areas and topics

In Unit 6 you began to fill-in the table of research areas and topics (Table 2). This was where you made notes on a range of research topics, noting points such as:

- Does your institution already carry out this activity?
- Do you personally carry it out?
- If not, would it be a good idea to do it?
- If yes, should you be doing more of it, or in different ways?

At this point you should read through these notes and then keep them alongside you for completing the rest of this unit.

Activity 1 30 mins

Thinking about your project

The aim of this activity is to get you ready for the next module when serious research planning will begin.

You are going to think about ten issues that will be relevant to your choice of topic and approach. These are listed below.

Consider each issue and make notes on a separate sheet of paper. These should be done fairly quickly and they do not commit you anything.

Issue	Comments
1 What is likely to be your research topic?	Your notes from Table 2 should help here.
2 What types of methods do you think might be involved?	e.g., statistical analysis, phone interviews, mail questionnaires
3 How much time can you spend on this project?	e.g., 'One day a week for six months' or 'I will do it all in my spare time'
4 Are you free to choose your own topic?	Your boss might insist on the topic, or you might find it easier to combine with you job
5 Would you need to get any 'permissions' to carry it out?	e.g. access to statistical records or permission to interview pupils in a school
6 Would you be able to meet the costs of the research?	What would be the approximate costs and who would be paying them?
7 Are there any ethical questions to consider at this point?	e.g., do you plan to share the results with all participants?
8 Do you have access to what you need?	e.g., libraries, the Web, a tape-recorder, a computer, etc
9 Do you have specific training needs?	You may already know that you will have to learn a particular skill such as questionnaire design. The other modules will provide some of these skills and guide you to other sources.
10 What outcomes do you have in mind?	Will this be for an internal report, a journal article, part of a thesis, etc?

The feedback to this activity is at the end of the unit ➔

Summary

This was an 'action' unit with you doing all the work. By now you should have a very rough framework for a research project. The next module – A2 *Planning research and evaluation* – and following ones will help you shape it even further. Good luck!

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