

Developing multi-media resources for psychology courses, teaching observation skills for clinical training and research

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Introduction

A project funded by the Higher Education Funding Council for England (HEFCE) and the UK Department for Employment and Learning (DEL), called Observation Skills in Psychology, has produced new multi-media materials (by building on the previously developed *fOCUS* software) suitable for use in clinical skills training, undergraduate courses and research. This case study provides an insight into the development and use of multi-media materials designed to support both independent and collaborative work.

Systematic observation and assessment of behaviour skills are recognised as central components of undergraduate research methods training in psychology and form a major element of the defined core competencies for clinical psychology training. They are widely valued in related professional fields including nursing, primary care, social work and teaching, and are important 'employability' skills for clinical practice and behavioural research. They form an important part of linking theory and practice, through the application of psychological principles to observation, analysis and assessment of behaviour.

These skills also form part of the core knowledge domains in the UK Quality Assurance Agency for Higher Education Psychology benchmarking, being explicitly noted within the subject skills area and contributing to several of the generic skills areas and modal knowledge standards. The British Psychological Society expects courses recognised for the Graduate Basis for Registration in the Society to include observation skills within the research methods curriculum. Observation techniques are also a common component of methods teaching in the 3+1 model for PhD research in psychology.

However, this skill area has become increasingly difficult to teach effectively using traditional approaches involving real-time observation of individuals. These often involve clinical or institutional settings where access to observe individuals is increasingly restricted and difficult to establish and maintain. Further, the teaching supervision required is time-consuming since it needs to be given at individual or small group level. These problems are especially acute in distance teaching and where large numbers of students are concerned, as is increasingly the case within psychology higher education teaching. While video-cassettes might seem a feasible alternative, they require expensive, dedicated equipment and without extensive staff involvement cannot support the detailed analyses that are needed for observational methods training.

During the 1990s, The Open University and the BBC developed an innovative, multi-media approach to training in this area, culminating in the production of software named *fOCUS*. This provides functions for observing, annotating, coding and analysing digitised video and audio materials, with linked hypertext to support students' learning and the software functions.

Defining the issue

Two early versions of *fOCUS* were produced for large-scale use in Open University undergraduate and postgraduate courses, one of which, for the introductory psychology course DSE212, is used by over 2,500 students and tutors annually. In 2000, *fOCUS* gained the European Academic Software Award for the social and behavioural sciences, judged and presented by the European Knowledge Media Association.

Over 37,000 students per annum take psychology courses at undergraduate and postgraduate levels in the UK, comprising around 2% of the total higher education student population, and this is without including students taking psychology as an option within other degrees. Around 27,000 students per annum are studying psychology at undergraduate level, and methods modules are taken by most of these.

Given the size of this potential 'market' for purpose-designed teaching materials and the positive early feedback, further development of *fOCUS* was felt to be worthwhile and likely to benefit a significant number of higher education institutions. As a result, a bid for funding from phase 4 of the Fund for the Development of Teaching and Learning (FDTL) by a consortium of universities (The Open University, Leeds Metropolitan University and the Universities of Newcastle, Oxford and Sheffield) was successful and the 'Observation Skills in Psychology' project was established to run for three years from January 2003. Its key aim was 'to improve the quality and cost-effectiveness of training in systematic observation and assessment skills in undergraduate psychology and postgraduate clinical psychology courses by further developing and evaluating the *fOCUS* software'.

The objectives of the consortium, in collaboration with additional participating departments were to:

1. identify user requirements and intended learning outcomes for training psychology undergraduates and clinical psychology postgraduates in observation and assessment skills;
2. produce two customised versions of existing CD-ROM based teaching materials meeting the identified requirements, one relating to observational methods of studying behaviour for psychology undergraduate courses, the second relating to observation and assessment in clinical psychology courses;
3. pilot and evaluate the resulting teaching materials in ten psychology departments;
4. modify the materials in the light of the evaluation;
5. disseminate widely information about the developed teaching materials, and support and evaluate their introduction into teaching programmes;
6. support up to ten departments in developing and using further versions of the CD-ROM based teaching materials;
7. identify and evaluate opportunities and solutions for meeting the specific needs of students with disabilities;
8. conduct a broad dissemination program to support and extend the take-up of the final sets of teaching materials; and
9. plan a strategy to establish ongoing support for departments using or wishing to make use of the teaching resources, and to foster further development activities.

The project plan was divided into three phases, each lasting one year. The first year concentrated on establishing the needs of future users (both in terms of content and software development) and producing material that would meet these needs. The second year focused on the evaluation of this material and addressed issues arising from pilot studies.

During the current and final year, other higher education institutions are being encouraged to customise the material whilst the project team is reviewing usability for users with disabilities and promoting take-up.

Approach/Methodology

The core project team comprises two Project Directors, a Project Manager, a Project Assistant and seven academics from the consortium partner universities. Institutions who have been involved in piloting *fOCUS* include Aston University, Birmingham University, King Alfred's College Winchester, Leeds University, Leeds Metropolitan University, Leicester University, Liverpool John Moores University, Newcastle University, Northumbria University, Oxford Brookes University, Portsmouth University, Stirling University, Sunderland University, The Open University, West Suffolk College and The University of the West of England, Bristol. Software development is carried out in collaboration with Psycle Interactive Ltd.



Evaluation and monitoring of the project's progress and processes are undertaken by the Steering Committee, the National Co-ordination Team of the UK Higher Education Academy and an External Evaluator (Professor Margaret Harris, Royal Holloway College, University of London).

During March 2003, a questionnaire survey to identify user requirements for observation and assessment skills training was circulated to 118 undergraduate and 32 clinical psychology departments; 39 undergraduate and 16 clinical departments replied. Also early in 2003, using an existing version of *fOCUS*, Leeds Metropolitan University ran a pilot study which, for the first time, tested the software in a classroom based rather than distance learning situation. Sixty-five undergraduate students and four staff were involved.

These two exercises provided information about current teaching methods and user specifications for multi-media resources and suggested that content requirements for the 'undergraduate' and 'clinical' versions were much less similar than was originally envisaged. As a result, content for each CD-ROM (with the exception of 'help' material) was developed independently although each utilised the same software which was updated to take into account this

early feedback. These versions became known as *fOCUS II*. Both the 'undergraduate' and 'clinical' CD-ROMs utilise high quality digital video and text based material and are based around a series of 'learning units'. The undergraduate CD-ROM, which utilises previously recorded, rights cleared videos, developed quickly but the clinical version took longer and involved recording new role play situations.

The undergraduate version ('Observation Methods')

The 'Observation Methods' CD-ROM contains two learning units: 'Coding', and 'Reliability and Validity'. Each unit (which can be completed within a single practical session of 2-3 hours) consists of text, video clips and activities designed to explain the relevant concepts and provide 'hands-on' experience and opportunities for skills development. Each unit also contains a workbook, a series of formative questions to help students reflect on their learning and an activity designed to support the transfer and practice of skills learned.

Clinical version

Two sets of digital video resources contain role-play situations showing sessions between clinical psychologists and their clients (played by actors). One client is a depressed young woman and the other a teenage boy with health and family issues. Video-recordings of these sessions are supplemented by Interpersonal Process Recall interviews in which clients and psychologists review and reflect on the sessions (Elliott 1986). The video material is used to focus on three clinical skills, 'Opening and Closing Sessions', 'Note-taking', and 'Perspectives'. As appropriate, printable journal articles are included for use in extension activities if required. Each item required rights clearance from the publisher or individuals appearing in the video.

Once responsibilities for writing and review were agreed, work progressed to a schedule based on the delivery date of CD-ROMs to departments. Through a variety of dissemination events and individual visits, unit drafts were discussed with potential end-users who were able to contribute suggestions from their varied perspectives. For example, the clinical version was viewed by psychologists working for the National Health Service, by Clinical Trainers and by academics from psychology and other disciplines such as Health and Social Welfare.

The undergraduate version was circulated to partner departments during September 2003 in preparation for their pilot studies scheduled for the 2003/2004 academic year. Partners signed a letter of understanding setting out their role in the pilot study and were paid £500 on submission of their feedback. Support was provided by the project team and included a workshop to help familiarise staff with the software and discuss ways in which *fOCUS II* might be incorporated into their curricula. An e-network was established among partners so that experiences could be shared.

Following the pilot, evaluations collected both qualitative and quantitative data to help determine whether the materials were 'fit for purpose' and to assess impact on student learning. Information from staff (both academic

and technical) was gathered using an evaluation template followed by a joint meeting of all partners during which issues raised were explored. Students' views were collected through end of unit assessments and (where possible) focus group sessions aimed at gaining a consensus view on the following questions:

1. What do you consider to have been the positive and negative aspects of working with *fOCUS II*?
2. In what ways could *fOCUS II* be changed or improved?

The points raised were discussed by the whole group and numbers in agreement recorded so that each received fair weighting when the results were analysed.



Findings/Outcomes

The key findings and outcomes to date are detailed below.

Multi-media content

Rather than complete courses, users' preference was for small units of material with defined learning outcomes, supporting individual practical sessions that could easily be incorporated into their teaching. The project team recognised that within its remit, it could not produce sufficient material to meet all the stated requirements of all departments but agreed to produce a series of CD-ROMs containing units concentrating on the most popular topics (see above).

Each unit was written as a 'learning object'; i.e., a 'digital piece of learning material that addresses a clearly identifiable topic or learning outcome and has the potential to be reused in different contexts' (Weller, Pegler and Mason 2003). Each 'object' contained:

- a title;
- an overview of the content;
- an indication of the time it should take to complete;
- learning outcomes;
- unit content;
- (as appropriate) links to other relevant material; and
- assessment questions.

This approach meant that, if required, subsequent CD-ROMs could easily be developed using selections of material from a range of versions.

Other features included:

- step by step explanations and guidance;
- text and audio 'help' files;
- interactive exercises. For example, having read about observation and coding schemes, users view video sequences and code them using appropriate coding schemes;
- hyper-links to facilitate progression from one page to the next, and to supporting text;
- consistent look and feel to units through the use of a style template;
- limited need to scroll text files. Achieved by keeping each topic (where possible) to an A4 page-worth of text;
- For the 'undergraduate' CD-ROM, printable unit texts and workbooks reflecting the questions posed were included on the CD (a necessity given the current level of IT literacy amongst many staff and learners) and workbooks to accompany the 'clinical' units; and
- use of rights cleared, high quality digital video materials, including new material produced by the project to meet the specific needs of end-users. Ethical concerns surrounding the production of materials focusing on clinical interviews were overcome by using actors to play client roles and practising clinical psychologists as interviewers.

The content was developed around a framework provided by findings from a survey and appropriate elements of the UK Quality Assurance Agency for Higher Education Psychology Benchmark Statements and the Criteria for the Accreditation of Postgraduate Training Programs in Clinical Psychology as specified by the Division of Clinical Psychology of the British Psychological Society. The ongoing dissemination and discussion with end-users provided invaluable feedback on the units as they developed and served to ensure that their needs were closely addressed.

Since the two sets of materials were originally developed for specific audiences (undergraduate psychology students and clinical trainees) they acquired 'undergraduate' and 'clinical' labels which reflected this. However, as the project progressed, it became apparent that both sets could be of interest to a range of users including clinical trainees, undergraduate psychology students, researchers and students of other disciplines (particularly health and social welfare). As a result, the current labelling has altered to reflect more closely the content of each CD-ROM rather than the primary audience. The 'undergraduate' version has become 'Observation Methods' and the 'clinical' versions are named 'Note-taking' and 'Opening and Closing Sessions'.

Three further CD-ROMs are currently in production; 'Perspectives' (which will examine the role play scenarios from three therapeutic perspectives: psychodynamic, systemic and cognitive based therapy), 'Assets' (a series of video clips illustrating various aspects of cognitive and social development) and 'Researchers'. A unique feature of *FOCUS II* is that it can be customised easily and, in a 2004

report, the project's External Evaluator noted that the project might 'make more of *FOCUS* as research tool and highlight the facility for customisation.' The 'Researchers' CD-ROM will therefore, be a 'skeleton' CD-ROM comprising the *FOCUS II* software, customisation instructions and help files. It will provide:

- flexibility for departments with different needs or existing material based around other video resources which they wish to utilise;
- the opportunity for professional researchers to utilise *FOCUS II* to analyse their own video material; and
- the opportunity for undergraduate students and postgraduate trainees to analyse their own video material as part of their project work.

In addition, DVDs and VHS videos of the two role-play scenarios have been produced to maximise the flexibility of the resources.

Using *FOCUS*

The first version of *FOCUS* piloted by the project included a 'Familiarisation' unit which provided a step-by-step guide of all the features and functions of the software. The intention was that all users should work through this before they begin the other units. However, feedback indicated that the familiarisation unit was long and laborious; a preferred approach was to introduce users to relevant functions of *FOCUS II* as and when required to support the learning activities. This approach was more likely to reinforce the purpose of sessions using *FOCUS II* as about learning the given skill rather than a new software package.

As a result of these findings, current versions include a set of generic help files (text and audio) and a PowerPoint presentation outlining the main features and functions of the software. For the more complex functions, help files include a hyper-link to step-by-step instructions which users can follow to gain 'hands-on' experience.

Units are designed either to facilitate independent or tutor supported study and collaborative or individual working. We await feedback regarding the success of this. With two or three students working at a computer, individuals who are not the ones entering the coding may be less engaged. The opportunity to share views and discuss findings may however compensate.

The level of noise created by a room full of students using sound on their computers was a concern for some departments but was overcome through the use of headphones. This proved successful where there was one computer for each student but we have not yet encountered a situation where there is more than one student at a computer. To date, students that have used the software in groups have worked in small rooms where sound was not an issue.

Software requirements

The *FOCUS II* software supports a cross platform CD-ROM which runs on *Mac OS9*, *Mac OS X*, *Windows 95*, *98*, *NT 4*, *2000*, *ME* and *XP*. It was originally designed to save material onto the hard drive of the host computer but the pilot study highlighted a problem as university imposed computer security systems prevented this working

effectively. Modifications to the software now enable users to select their own pathway for exporting and saving work.

Some users were strongly influenced by *Windows* conventions and frustrated by aspects of the software which differed from their previous experience. Where possible, this was taken into consideration as the software developed although some preferences (such as for a resizable window) could not be accommodated at this stage.

The project team have recognised that *fOCUS* could be developed further to support Web and Intranet delivery and are investigating this possibility. Current work on an updated version (*fOCUS III*) will utilise *QuickTime 7* which offers a new way of dealing with video on a computer. The quality is much improved and the viewing frame can be expanded. *fOCUS III* will have a much simpler interface than at present; controls will only appear as and when they are needed to complete a particular function. It will be:

- simpler to customise;
- more SENDA compliant (more keyboard functions);
- more compatible with networking systems;
- auto-launching;
- varied in video screen size options; and
- more up-to-date in look/feel.

Impact

The full impact of the project has yet to be realised but we anticipate a wide take-up of the resources. In addition to use by the partners throughout the pilot study, the Open University has adapted the software for use in a number of courses which are taken by a total of approximately 8000 students per year.

Contact with other HEFCE funded Higher Education Institutions suggests that take-up of the materials during the 2005/2006 academic year will be good and we are planning a continuation strategy which will allow us to work more closely with other disciplines and further develop *fOCUS II* to meet the needs of a wider audience.

Reflection

To date, the project has gone well with a good level of interest in the materials developed. However, we have learned that turning interest into concrete partnerships requires a degree of nurturing and plenty of time for departments to make changes to their curricula. Meeting potential partners in their own institutions to demonstrate *fOCUS II* and discuss its use was invaluable and represented a good use of resources. These meetings often involved discussions about how *fOCUS II* might be integrated within the curricula and ways in which foreseeable problems (e.g., numbers of students in relation to numbers of computers) might be overcome. We found that an open mind, flexibility and willingness to engage with and negotiate around the particular working practices of each institution were essential.

Involving technical staff in discussions was also helpful. Their support was critical particularly as academic staff were not always confident with the technology and even minor difficulties could affect their perception of the software and its reliability.

We also found that because a high proportion of individuals were unfamiliar with multi-media material, it was not particularly useful simply to talk about *fOCUS II* or ideas for its development. On many occasions, we proved that a demonstration was the quickest way to understanding; once potential users had seen the software working, they could usually picture ways in which they might use it to support their own teaching.

We found that the option to customise *fOCUS II* was highly valued by those wishing to explore new media and develop materials to meet their individual requirements. It was also reassuring to those with tried and trusted material they were reluctant to give up.

Throughout the course of the project, various additional opportunities presented themselves and it would have been easy to overstretch resources by taking on too many. A key strength of the project was the clearly defined and achievable aims and objectives against which we could judge performance and make decisions with regard to changes in our plan. As a result, the additional activities we did undertake (e.g., the unplanned development of a searchable database of observation skills teaching resources which arose from the questionnaire survey) were achievable and did not compromise the intended outcomes.

References

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