# Developing an Early Years and Disabilities, blended Masters Module: Course change and the use of a critical friend.

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## **ABSTRACT**

e-Learning promises increased flexibility and accessibility for learners; however, how this promise is realised will depend on the teaching context. This paper highlights how the underlying conceptualisation of a Masters level course module changed as the team developing it embraced the flexibility and challenges offered by online technologies, supported by the comments of a critical friend skilled in online course development. It also highlights the opportunities such approaches offer in facilitating greater access for a wider range of students. This was of significance to this programme because of the target students for this module – professionals working with disabled children in the early years. This is particularly important when coupled with the possibilities that elearning strategies offer for extending and diversifying pedagogic and assessment approaches.

#### INTRODUCTION

This paper highlights the process of course re-design undertaken in moving a traditionally taught masters level module to an online, problem based learning version, aided by the interventions of a critical friend. The course module was redesigned in order to use elearning to increase the accessibility of the existing course to a wider range of learners. It does this by reporting on a case that involved taking an existing, face-to-face delivered master's level module and re-designing it to embrace a 'blended' learning approach involving problem-based learning. This process anticipated current moves by the UK government to support collaboration between members of the children's workforce through increased inter- and cross- professional working.

#### **DEVELOPING THE NEW COURSE**

Open-learning, distance learning and e-learning all offer potential for broadening access to training courses but may not be appropriate for every type of learner. None the less such approaches offer flexibility to individuals, employers and the people they work with (Rowntree, 1992; Arter, McLinden and McCall, 2001). Learners in this context typically work on their own and/or with a small group of others. This is particularly significant for practitioners working in different fields who can access each other's experience and where more experienced practitioners can support their less experienced colleagues (Arter, McLinden and McCall, 2001). 'e-learning', as a distributed form of open learning, offers

important ways for students to access each other's understanding and to work collaboratively in solving problems.

The PREEL project offered a funded opportunity and the advice of a skilled critical friend, to develop a new master's level module directed at professionals working with disabled children in the early years. It aimed to take a recently designed and validated, traditionally taught module and redesign it with a stronger focus on problem solving.

Developing problem solving processes and skills may be achieved through the use of problem based learning approaches (Savin-Baden, 2000). Problem based learning activities as a pedagogic strategy focus on presenting students with apparently real life problems which require a solution (Ross, 1997). Such tasks draw from professional contexts familiar to or to be entered into, by students. Their online equivalents would also need to address the different contexts particular practitioners had experience of, the extent of shared terminology and their understanding of other practitioners' perspectives. The PBL approach is characterised by learning through shared and individual problem solving (e.g. Duch, 2001); the use of collaborative working in small groups (Price, 2003); a focus on real world contexts for Problem Based Learning tasks (Duch, 2001); the development of strategies in one task context that can be used as templates applicable in other task or problem settings (Dahlgren, 2000) and an emphasis on shifting between teaching and learning as part of learning strategies. MJ advised that these aspects could be built into the design and structure of the activities and therefore the structure of the online interactions.

On-line learning approaches that blend face-to-face and online activity offer course participants opportunities to maintain interpersonal contact, engage in mutual and shared task activity and reduce the need to be in the same physical place at the same time (Littlejohn and Pegler, 2007). Online learning approaches have their critics (e.g. Newman, 2004); not least because their effectiveness may be undermined if students do not fully engage with the processes involved. This queries its suitability for all types of learners. On the other hand evidenced success has been noted in a range of settings including medical training (Bowdish et al, 2003), undergraduate teacher education (Edwards, 2005) as well as in other disciplines (e.g. health education; Tichon, 2002).

#### THE CASE CONTEXT

The existing course aimed to:

- Provide a systematic introduction to current issues underpinning early intervention for young children (birth to five years) with sensory, physical and learning difficulties;
- Lay a foundation for students to critically explore early year's pedagogy and special and inclusive education;
- Develop the sharing of professional expertise and practice based on a theoretical and analytical understanding of the different disciplines' approaches to early intervention.

It was delivered face-to-face and involved learners taking time out of their existing professional practise, necessarily reducing contact time with those they supported.

Course units were delivered in a series of ten face-to-face sessions (of three hours a week), with additional learning tasks outside these sessions (some of the session topics spanned two weeks). This totalled 30 contact hours with staff and involved a total time commitment of 300 working hours for each student. Teaching was via:

- Lectures:
- Workshops (involving a range of media);
- Student critical examination of their own work in discussion sessions;
- Outside speakers on particular topics;
- Case study tasks.

The principle form of assessment was a 5000 word written assignment, which had to focus on a particular issue and then explore its theoretical and practice informed elements.

Aside from these points the course team were aware from their wider knowledge of the field and current policy and practice developments that:

- Further changes in work practices and context were imminent at a national level;
- Wider changes in Special Educational Needs (SEN), disability policy and special education provision were anticipated;
- Being able to combine policy awareness and practice in an evidenced way would be increasingly important for practitioners;
- Cross-disciplinary working would increasingly involve joint problem solving and expertise sharing.

In addition, the course team were aware that the existing course did not focus on problem solving as such or the processes that support such activity.

Addressing these changes, focusing on problem solving and taking advantage of the possibilities offered by online learning suggested two key issues:

- What would students taking the course need to be able to 'do' to access its learning opportunities?
- What would tutors supporting students on the new course need to be able to offer in terms of their skills linked to the same issues?

Both of these points implied a need to re-examine some basic assumptions about the students, their contexts and the pedagogic practices that might most support their learning.

The course team were able to draw on their own diverse professional experiences, feedback from previous and current students and in-service students' combined knowledge of current professional practice. It was also apparent that the team would need to access current literature and practice in online learning. Reviews such as that by Jara and Mellar (2007) offered one type of resource. The support of a skilled critical friend and advisor, experienced in the area of on-line learning – Magdalena Jara (MJ), also proved crucial.

## RESEARCHING AND TAKING ADVICE

As a first step, the literature on e-learning was examined using the review by Jara and Mellar (2007) as a starting point. A summary of current research was produced. This addressed, first, current theories, frameworks and tools around e-learning as an activity and context (e.g. Mayes and Freitas, 2004; Strijbos, Martens and Jochems, 2004) and second, relationships between Virtual Learning Environments (VLEs) and teaching practices (Vogel and Oliver, 2006; Oliver and Price, 2005). This was particularly informative in relation to user experiences (students and tutors) of VLE and e-learning approaches (e.g. Daly et al, 2005). A third focus was on garnering previous experience of how specific forms of VLE might be used

As our proposed course was to be of the 'blended type' the course team also examined the literature on designing, running and evaluating blended courses (e.g. Oliver and Price, 2005) and the use of specific templates for e-learning informed courses (Laurillard, 2002; 2006; Mayes and Freitas, 2004; Mellar, 2007). One element informing the success of e-learning courses was the extent that participants – students and staff – received training and preparation in the use of the various elements of such courses, prior to, during and at the end of the course (Oliver and Price, 2005). Discussion with MJ helped to focus the team's attention on this aspect, leading to a program of continuing professional development for team members using the Blackboard online environment – the virtual learning environment to be used for the revised course.

Another element of successful e-learning focused on learner-tutor interactions and how these were planned and supported .Work with MJ identified the need to make the design and planning of task activities, as social interaction contexts, a key part of the team's early course design work. This also had implications for assessment strategies. MJ's advice stressed the need to make assessment integral to the activity being undertaken. Identifying assessment occasions, their location in the course programme and time scale for feedback to students had two advantages: it provided markers for tutors in their course management and a focus for students when planning their own work.

A further factor was consideration of the contexts in which assessments were deployed (and so the practises involved) and the outcomes that could result from their use (Hatzipanagos, 2006; Higgins et al, 2006; Dawe, 2005). As the revised course was to be grounded in critical, reflective, relevant practice, there were issues about how the effectiveness of the elearning strategies being used might be evaluated (Littlejohn, 2004) and how specific module outcomes might be examined (Daly et al, 2005, 2006). Here again MJ's advice suggested that evaluation needed to include all those involved, including technical staff as well as tutors and participants. It also needed to address issues of usefulness for learning as a central focus. More significant was that once evaluated, course activity should be informed by the evaluation as quickly as possible.

The new 'blended' module that began to emerge from engaging with the relevant literatures MJ's advice and the team's CPD, involved examining existing attitudes to learning in terms of where, when, how and in what ways, using what technologies, learning could be fostered and supported – an approach suggested by Littlejohn and Pegler (2007, p2).

Blended learning offers many opportunities and raises challenges if it is to be implemented effectively. These included supporting students and tutors in the transition from traditional teaching/learning approaches; tutor and participant expectations and participant roles – of tutors and students, that were integral to e-learning; the careful design of course structures and materials and group working in a distributed context. These would particularly support decision-making activities, based on real life problems and how practitioners working collaboratively might address them.

Attending to how the organisation of an activity offered a route into monitoring the development of students' working with each other and a potential course assessment outcome was rightly emphasised by MJ in her advice to the team. She also underlined the point that transferring PBL approaches from face-to-face to online settings requires an understanding of the characteristics of the two settings themselves, as also noted by Dennis (2003). In addition, being clear about how online tasks can be supported is also necessary (e.g. Yip, 2002; Watson, 2001).

It would seem sensible that VLE based learning strategies should be used *selectively* in ways supportive of learning tasks, rather than as 'an across the board approach' (also see Uden & Beaumont, 2006; McLinden, McCall, Hinton and Weston, 2006). Knowing which strategies to adopt at particular points in the course necessarily relates to identifying what students would need to know to engage with the task in question. This made identifying students' prior experience a priority and the need for the course team to make learning purposes, strategies and demands explicit in the programme overall and in the design of specific activities and tasks. This in turn identified a need for a scaffolded approach to task and activity development over successive activities so that skills could be developed, consolidated and extended. Here, following MJ's advice, assessment and how it might be integrated into the students' individual and collaborative work had also to be considered (Hatzipanagos, 2006; Higgins et al, 2006).

## CRUCIAL CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

It was apparent from the outset that the team would need to undertake additional CPD. Here the tools available within the Blackboard VLE became an issue. MJ helped the team to explore the potential of the various tools available in the system, linked to a number of courses attended by team members. This in turn helped the team to begin to specify which tools would be used in the course, how they might be used in particular tasks and for what purpose. This also identified what *participant* training might be needed during the face-to-face and online parts of the course. MJ's input also helped to identify a number of further issues for the team. These related to:

- The authoring of task and PBL materials: whether to create materials afresh or to develop existing materials into forms more useable for on-line use.
- The need to avoid a purely instrumental view of the VLE's possibilities: it was more than a way of distributing and managing learning activities over a distance, having a leaning value in itself.

MJ made it clear that preparing for an online context meant that how something was done in a face-to-face setting would need modification and re-conceptualisation when transferred to an online setting if it was to take advantage of the affordances of the online setting. The design-use interplay MJ had advocated throughout the development process had guided the team towards appreciating the need for resource explicitness and the need for clarity in what was presented and the instructions for how it was to be used. This also had implications for the nature of instructional and informational exchanges between tutors and students off and on-line.

In the old course, face-to-face materials had been designed to be used by a single student, working on their own. She or he would then, through various grouping combinations, share with, collaborate with or contribute to, a pooling of their individually arrived at understandings of the materials. Before developing the new materials, course team members undertook a critical analysis of the content themes of the proposed course.

By identifying which aspects of the content would need to be present in each task activity it was possible to focus on how the task would lead to the desired pedagogic outcome. In the PBL case there was also a need to focus on the potential for an individual overview of the nature of the task at one level (individuals would need to have a view of their decision making process and actual decisions). At another level students would need to be able to parcel out work to each other (so the task would need to be one capable of being taken apart in a realistic and workable way). A further level of task design would need to permission and facilitate group members to come together to share their research, exchange interpretations, discuss solutions and propose next steps. These considerations could be built into the way the task design of individual tasks was structured, linked to changes in the degrees of scaffolding individual tasks might require.

If one of the key aims of the module – the fostering of cross-professional decision making practices – was to be realised, successive tasks had also to encourage progressively more, individual, independent research. Tasks would need to be resolvable into a range of possible solutions and more complex decision-making-solution-outcome relationships. This focus on research skills and understanding would also be important in ensuring that participating students on the course could meet the research elements of the master's degree criteria

## **CONCLUDING COMMENTS**

The team's engagement with the PREEL project and the particular task of creating a blended course involved a number of processes. The first being an identification of the ways the old course was and was not accessible in its existing form: requiring participants to gather in one geographical location at one particular time for example. It required a consideration of how participants were prepared, or not, for course activities and the demands it would make on them as learners (studying together in group-based activities or at home in independent and isolated study) and how this related to teachers pedagogic skills and interventions. Further, it was necessary to explore how tasks and task activity and their

associated assessment procedures related to the real life working experiences and contexts future students would need to work in.

Having considered the existing course, a second process needed to take place: a consideration of how, using e-learning strategies, the existing course could be made *more* accessible. This meant reflecting on what this move towards e-learning would mean for teachers and students. MJ's interventions in the course team's planning helped to identify what VLE related skills students and teachers would need and at what point. They also helped to identify the sequence in which they would need to be made available for both novices and more experienced users. Similarly identifying the detail of the task requirements also helped to sequence the order in which these skills would need to be developed. Making assessment and evaluation an integral part of module and task design, embedded these processes in the development of the module and allowed the team to plan the overall course outline and to focus on which processes and activities would need to precede or follow each other, which could run in parallel and which were to be prioritised (for the face-to-face and VLE sessions) through the course.

In practice the increased accessibility of the course was apparent in a number of ways. Participants would not be tied to working at particular places, at particular times or to particular schedules of activity – organisationally the new course, with its substantial online elements, would facilitate more flexible integration into professional and social lives. The learning of key course skills such as how to engage with and manage off-line and on-line group activities, grounded in practical problem solving, would be developed in a scaffolded way. Such activities modelling and mirroring the ways participants would be expected to work professionally in their particular service settings. In addition, being more directly related to participant's day-to-day experiences, learning activities could be informed by prior professional experience in a more direct, less 'academic' way. Equally the assessment strategies being deployed would more closely relate to participants work-related practices.

A third process involved understanding and making time to plan, develop and appropriately skill the course teachers for their roles in the new course. Competency in course delivery, the facilitating of online engagement and knowing how to support learners as they progressed through a task, singly, in a pair or as a problem solving group would, in turn, make tasks and learning more accessible. This also meant that tasks had to be developed that would support this form of teacher involvement and which would be meaningful and relevant to participants-further increasing accessibility through an increased salience for those involved.

Supporting these processes, the group benefited from a number of influences. Access to relevant literature and the experiences it reported was one; another was MJ's interventions, which were, in many respects, the more significant. Having a critical and informed friend as part of the team, facilitated by the PREEL funding, allowed literature derived research to be contextualised in real experience and proposed strategies to be tested against experience. Having a critical friend skilled in the areas of online learning also helped guide the identification of relevant CPD activities. These in turn helped develop team members' confidence in working in and making decisions about embracing online learning as a pedagogic activity.

## **REFERENCES**

Arter, C., McLinden, M. & McCall, S. (2001) 'A distance education program for teachers of children with visual impairments in the United Kingdom'. In *Journal of Visual Impairment & Blindness*, 95 (9), 567–571.

Bowdish, B. E., Chauvin, S. E., Kreisman, N. & Britt, M. (2003) 'Travels towards problem-based learning in medical education'. In *Instructional Science*, *31*, *231*–253.

Dahlgren, M. A. (2000) 'Portraits of PBL: course objectives and students' study strategies in computer engineering, psychology and physiotherapy'. In *Instructional Science*, 28, 309–329.

Daly, C., Pachler, N., Pickering, J. and Bezemer, J. (2005) *A study of e-learners' experiences in the mixed-mode professional degree programme, the Master of Teaching*. Available at: <a href="http://www.wlecentre.ac.uk/cms/files/projects/reports/PR\_Daly-Pachler-Pickering-Bezemer\_2006.pdf">http://www.wlecentre.ac.uk/cms/files/projects/reports/PR\_Daly-Pachler-Pickering-Bezemer\_2006.pdf</a> (last accessed 06 Dec 2007)

Daly, C., Pachler, N., Pickering, J., Bezemer, J., Russell, J. and Wardle, J. (2006) *The development of methods for eliciting learner narratives within a framework for embedded evaluation for fully online distance learners*. Available at: <a href="http://www.cde.london.ac.uk/support/awards/generic2521.htm">http://www.cde.london.ac.uk/support/awards/generic2521.htm</a> (last accessed 06 Dec 2007)

Dawe, M. (2005) *Developing Learning Conversations*. Available at: <a href="http://www.wlecentre.ac.uk/cms/files/Developing%20learning%20conversations.pdf">http://www.wlecentre.ac.uk/cms/files/Developing%20learning%20conversations.pdf</a> (last accessed 06 Dec 2007)

Dennis, J. K. (2003) 'Problem-based learning in online versus face—face environments'. In *Education for Health*, 16(2), 198–209.

Duch, B. J. (2001) 'Models for problem-based instruction in undergraduate courses'. In B. J. Duch, S. E. Groh & D. E. Allen (Eds) *The power of problem-based learning: a practical 'how to' for teaching undergraduate courses in any discipline*. Sterling, VA: Stylus.

Edwards, S. (2005) 'Higher education in the 21<sup>st</sup> century: examining the interface between graduate attitudes, online, and problem-based learning at Monash University'. In *Technology, Pedagogy and Education, 14 (3), 329-352.* 

Hatzipanagos, S. (2006) Closing the loop: identifying effective formative assessment practices and feedback processes that empower the learner and enhance the student experience in open and distance learning. Available at: <a href="http://www.cde.london.ac.uk/support/awards/generic2535.htm">http://www.cde.london.ac.uk/support/awards/generic2535.htm</a> (last accessed 06 Dec 2007)

Higgins, S., Falzon, C., Baumfield, V., Mercer, D., Murtagh, L., Neave, L. and Robson, S. (2006) *Developing formative assessment using ICTs in education*. Available at: http://www.ncl.ac.uk/cflat/projects/LT021.htm (last accessed 06 Dec 2007)

Jara, M. and Mellar, H. (2007) From pedagogic research to embedded e-learning (PREEL): Research Review report. Available at: <a href="http://www.lkl.ac.uk/research/benchmarking/wp-content/uploads/preelresearchreview">http://www.lkl.ac.uk/research/benchmarking/wp-content/uploads/preelresearchreview</a> 240307 final.pdf (last accessed 06 Dec 2007)

Laurillard, D. (2002) Rethinking University Teaching. London: Routledge.

Littlejohn, A. (2004) *The Effectiveness of Resources, Tools and Support Services used by Practitioners in Designing and Delivering E-Learning Activities: Final Report* Available at: <a href="http://www.jisc.ac.uk/uploaded\_documents/Final%20report%20(final).doc">http://www.jisc.ac.uk/uploaded\_documents/Final%20report%20(final).doc</a> (last accessed 06 Dec 2007)

Littlejohn, A. and Pegler, C. (2007) Preparing for blended e-learning. London: Routledge.

Mayes, T. and Freitas, S. D. (2004) *Review of E-learning theories, frameworks and models*. Available at:

http://www.jisc.ac.uk/uploaded\_documents/Stage%202%20Learning%20Models%20(Versi on%201).pdf (last accessed 06 Dec 2007)

McLinden, M., McCall, S., Hinton, d. and Weston, A. (2006) 'Embedding online problem-based learning case scenarios in a distance education programme for specialist teachers of children with visual impairment' In *European Journal of Special Needs Education* 22 (3), 275–293

Mellar, H. (2007) 'A study of effective practice in ICT and adult literacy'. Available at: http://www.nrdc.org.uk/uploads/documents/doc\_3347.pdf (last accessed 06 Dec 2007)

Newman, M. (2004) *Problem Based learning: an exploration of the method and its evaluation in a continuing nursing education programme*. Research Report. London: TLRP-ESRC.

Oliver, M. and Price, S. (2005) *The impact of technology-enhanced learning on roles and practices in Higher Education*'. Available at <a href="http://www.wlecentre.ac.uk/cms/files/Technology-enhanced%20learning.pdf">http://www.wlecentre.ac.uk/cms/files/Technology-enhanced%20learning.pdf</a> (last accessed 06 Dec 2007)

Price, B. (2003) *Studying nursing using problem-based and enquiry-based learning* Basingstoke: Palgrave Macmillan.

Ross, B. (1997) 'Towards a framework for problem based curricula'. In D. Boud & G. Feletti (Eds.) *The challenge of problem-based learning*.(Second Edition). London: Kogan Page

Rowntree, D. (1992) Exploring open and distance learning. London: Kogan Page.

Savin-Baden, M. (2000) *Problem-based learning in higher education: untold stories*. Buckingham: Open University Press.

Strijbos, J. W., Martens, R. L. and Jochems, W. M. G. (2004) 'Designing for Interaction: six steps to designing computer-supported group-based learning'. In *Computers & Education*. 42, 403-424.

Tichon, J. G. (2002) 'Problem-based learning: a case induction in providing e-health education using the Internet'. In *Journal of Telemedicine and Telecare*, 8(3), 66–68.

Uden, L. & Beaumont, C. (2006) *Technology and problem-based learning*. London: Information Science Publishing.

Vogel, M. and Oliver, M. (2006) 'Learning design tools project: Design for learning in virtual learning environments - insider perspectives. Project Report'. Available at: <a href="http://www.jisc.ac.uk/uploaded\_documents/D4L\_VLE\_report\_final.pdf">http://www.jisc.ac.uk/uploaded\_documents/D4L\_VLE\_report\_final.pdf</a> (last accessed 06 Dec 2007)

Watson, G. H. (2001) 'Problem-based learning and the three Cs of technology'. In B. J. Duch, S. E. Groh & D. E. Allen (Eds) *The power of problem-based learning: a practical 'how to' for teaching undergraduate courses in any discipline* Sterling, VA: Stylus.

Yip, W. (2002) 'Students' perceptions of the technological supports for problem-based learning'. In *Education and Information Technologies*, 7(4), 303–312.

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