

The Workplace eLearner: Designing and delivering eLearning into the workplace

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By

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Abstract:

Historically, polytechnics and institutes of technology in New Zealand have had an extensive relationship with industry, business and the public sector employers in terms of placing students into internships, work experience, clinical placements and such like. Polytechnics are also able to secure relevant industry representatives on polytechnic programme advisory boards, for providing guidance with curriculum design and industry guidelines for applied qualifications.

However, providing training and education in the workplace represents a very different situation. While polytechnics are seen as good providers of entry level workers that industry, business and the public sector can mould to their own particular culture and needs, in terms of providing training and education in the workplace, polytechnics are seen by some as inflexible, too expensive, unresponsive and not really equipped to develop and deliver programmes that are tailored to the client's specific needs.

Web-based technology enabled learning offers the potential for the New Zealand's polytechnic sector to address many of the problems they have faced in delivering cost effective training and education into the workplace. It also has the possibility to deal with the perceived weaknesses of traditional methods of workplace-based training and instruction. While computer-based training offers the advantages of self-paced learning and skills training, the real value in a workplace learning environment is the ability to capture and leverage the knowledge, expertise and skills already present in the learners.

This paper presents a case study of how a consortium of polytechnics have undertaken two related eLearning projects which deliver a national management qualification to current and aspiring supervisory personnel in the New Zealand public sector.

Introduction:

“In an era of lifelong learning universities [and polytechnics], in the industrialised world will be marginalised unless they are efficient and flexible enough to meet today’s myriad educational and training needs” (Daniel, 1996, p.164) (Parentheses mine).

Historically, polytechnics in New Zealand have had an extensive relationship with industry, business and public sector employers in terms of placing students into internships, work experience, clinical placements and such like. Polytechnics also regularly secure relevant industry representatives on polytechnic programme advisory boards, for providing guidance with curriculum design and industry guidelines for applied qualifications.

However, providing training and education in the workplace represents a very different situation. While polytechnics are traditionally seen as good providers of entry level workers that industry, business and the public sector can mould to their own particular culture and needs, in terms of providing training and education in the workplace, polytechnics are seen by some as *“...too rigid, too expensive, unresponsive and not really equipped to develop and deliver programmes that are tailored to the client’s specific needs”* (Lamburn, 2003).

Delivering training and education into the workplace has been problematic for New Zealand polytechnics in the past for several reasons. Probably the most significant is brought about by the differences in the Government’s funding structure for courses delivered by tertiary institutions and those courses delivered to the workplace, funded by Government, but channelled through Industry Training Organisations (ITOs) and other mechanisms. The differences in funding structures impose certain constraints on state tertiary institutions that make it difficult and unattractive for them to engage with workplace delivered training and education in anything other than a piecemeal manner.

These constraints and the perceived lack of responsiveness and ability to meet employer’s specific workplace training and education needs along with a general lack of focus on developing the necessary capability to do so, suggests that this arena is yet to be recognised as strategically critical for the polytechnic sector.

Dramatic changes in the external environment, such as an anticipated drop in the school leaver demographic due to falling birth rates in the next few years (Min. Youth Affairs, 2000) are directly impacting on vocational education in ways that will fundamentally alter the role and function of these institutions. This in conjunction with the continued rationalisation of funding for tertiary institutions, and the rapid, globally-driven shift in

employment patterns and skill demands are also driving a need for polytechnics to re-conceptualise the reality and nature of their core business and recognise the strategic importance of, among other things, fully engaging in the development and delivery of education and training into the workplace.

There is also something of a revolution in the way workplace training and education is being viewed and in the nature of the relationship between educational institutions and the businesses and industries they purport to serve. Boud for instance makes this observation:

There has been a dramatic shift in recent years away from viewing educational institutions as the principal places in which learning occurs towards a recognition of the power and importance of the workplace as a site of learning (1998, p.6).

Web-based technology enabled learning offers the potential to address many of the weaknesses that have dogged traditional methods of workplace-based training and instruction as well as addressing some of the more intractable constraints that have held the polytechnic sector back from properly engaging with workplace learning. While computer-based training offers the advantages of self-paced learning and skills training, the real value in a workplace learning environment is the ability to uncover, capture and leverage the knowledge, expertise and skills already present in the learners. Workplace eLearning has seen a prodigious uptake in the corporate sector, particularly in the USA, where it's estimated that "...the worldwide corporate eLearning market... will grow from \$6.6 billion in 2002 to \$23.7 billion in 2006." (IDC, 2003), but educational institutions struggle to make inroads into this arena and yet for its very survival, polytechnics in particular, must take up the challenge.

This paper presents a case study of how a consortium of polytechnics have undertaken two related eLearning projects which deliver a national management qualification to current and aspiring supervisory personnel in the New Zealand public sector. These projects represent a new model of programme development and delivery, one which could have far reaching implications for making the polytechnic sector an effective and strategic training and education partner for industry, business and public sector employers.

Project Background

The Tertiary Accord of New Zealand (TANZ) is a consortium of four of the larger polytechnics and institutes of technology in the country. Formed in 2000, its primary objective is to maximise the effectiveness, accessibility and value of vocational learning for learners and to leverage the collective knowledge and resources of each institution through cooperation and collaboration.

In late 2003 TANZ was the recipient of a large government funded contract to develop the National Certificate in First Line Management and deliver it primarily as an online programme to various segments of the New

Zealand public service sector. This contract is based on an earlier pilot programme in which a version of the above qualification was developed and delivered to supervisors in a public sector meat inspection service.

The National Certificate in First Line Management is a unit standards-based qualification that is mostly assessed using competency-based performance criteria. It draws from a number of different knowledge domains including business management, interpersonal communications and occupational health and safety. This certificate level programme is made up of eight individual course topics with the learners also choosing two of three electives. The learning workload equates to approximately 440 hours of tutor directed and self-directed study.

The pilot was originally developed to meet the needs of a public sector compliance organisation which has a geographically distributed workforce and required their meat inspection supervisors to gain a nationally recognised qualification in First Line Management, as part of its development strategy. The client also had a need to have this programme highly contextualised to the industry workplace in which its supervising inspectors work. In addition, they wanted the programme delivered primarily online with a minimum of face to face teaching in order to minimise the costs and disruption of traditional forms of off-job training and education. This requirement also was tied to its organisational ITC strategy of having all documentation, regulations and recording processes handled through a sophisticated content management system delivered on a distributed Citrix Intranet platform.

Project Team Approach

One of the four TANZ members was nominated as the lead organisation and a project team of project manager, eLearning designer/web developer and a student web developer intern was put together, all from the same institution. Other team members were either seconded from the other member institutions or contracted in from outside on an “as needs” basis. None of the team members were dedicated to this project on a full time basis.

To streamline the content and web development process the eLearning designer spent time in schooling the contract subject matter expert/content writer in the principles of eLearning design and web screen layout. A series of writing templates were produced out of this process that the content writer then used for different sections of the course. Initially the content was delivered as a draft document and then through a reiterative review process the writer established a writing style, “voice” and comprehension level appropriate to the learners’ ability and expectation. In addition the content was delivered to the eLearning designer with all the required information and guidelines for graphical elements, information layout and navigation all according to agreed template formatting and web design requirements. This system resulted in a much speeded up process which over a short period of time required minimal reworking and editing.

A part-time student intern was also trained by the eLearning designer, who set up a series of production systems and templates that were easy for the student intern to follow. This meant the designer was able to establish the overall look and feel of the course pages, develop the images and graphical content, establish the Cascading Style Sheet parameters and map each course's particular structure. This was then passed over to the intern who did the web page development, uploaded the pages into the Blackboard Learning Management System (LMS), tested all the links and dealt with uploading the learners into the LMS system. The overall budget and project plan was developed and managed by the author.

Development Process

The process began with an in depth front end analysis (FEA), involving the stakeholders and a reference group of supervisors who were potential course participants. The average age of the learner cohort was in the mid to late forties with most supervisors having many years experience in the industry. All had undertaken workplace training and education at various times to gain compliance related qualifications and all used the company's computing network in the workplace.

Due to client requirements the programme had a very short time frame in which it had to be developed, so a decision was taken to use a rapid prototyping process of development which *"involve learners and/or subject matter experts (SMEs) interacting with prototypes and instructional designers in a continuous review/revision cycle."* (Siemens, 2002, online).

Consequently, the initial courses were developed, usability tested, deployed and formative evaluations conducted as the course was in progress. The learnings from this ongoing evaluation and review process were then fed back into the programme development process and modifications made and applied to the course in progress where appropriate, and to the next course in the programme where this was not appropriate.

In a variation of Thiagarajan's (1999, online), advice to *"deliberately design generic instructional materials for local finish...[in which the].. generic version is rapidly produced at the corporate headquarters and local variations are created in branch locations"* each course that made up the programme was designed so that it could be recontextualised for other workplace situations, be re-versioned in a generic form to be delivered to a general audience with a minimum of reworking. This was achieved by branding each course with client logos and separating out the course content from the learning activities and assessment tasks and by carefully avoiding any reference to the client's enterprise in the general content. Much of the learning activities and assessment tasks were situated in the learners' workplace, accordingly the contextualising information was largely located within in the assessment task and activities information and as these were all on discrete pages, re-versioning required only the substitution of these pages and the branding images.

Two, two-hour usability tests were conducted on the LMS platform, the course structure, design and navigation before the start of the first course. This was conducted with a small reference group of prospective learners and proved to be both useful and satisfactory in that it appeared that our FEA had provided an accurate analysis of the learner group and their abilities and many of the pedagogical design decisions we made, proved also to be effective.

The programme went live in June of 2003 to a cohort of 40 learners and, despite some early teething problems, it has successfully met the client's requirements and, according to ongoing evaluation, the learners' needs and expectations.

Workplace Learners

Workplace-based learning is fundamentally different from the normal polytechnic classroom-based learning in several significant respects. Workplace cultures rarely support the sort of learning environment that can be expected of the traditional classroom nor are they always sympathetic or conducive to formal learning. Learning is not often the primary focus of a workplace and is usually undertaken only in order to improve and enhance the skills and performance of the work the learner is employed to do.

Workplace learners, as adults, also bring a different set of needs, strategies and motivations to the learning process. As Knowles (1984, p.12) has shown, adult learners tend to be self-directed, experiential learners, have life "*experience that becomes an increasing resource for learning*"; are able to internally generate motivation for their learning often based on notions of self-development, career advancement and achievement; have a focus on directly applying their learning and approach learning as primarily a problem-solving activity.

Workplace learners differ from institutional learners in another significant way; they are not learning in order to gain entry into the workforce, they have already achieved that. People in the workplace often have substantial knowledge about and experience in their organisation's or company's business. They also frequently have significant knowledge of the wide range of functions, skills and roles of their colleagues' jobs as well of those of their own.

Workplace-based learning is at its most effective when this knowledge and experience is put to work as part of the learning engagement. It is when this knowledge collateral is harnessed, unpacked, made explicit, reflected on and used as the bedrock on which other learnings and knowledge structures are built, that learning not only becomes more effective, but also its context-specific relevance becomes more meaningful to the learner and ultimately to the worker's organisation.

Vygotsky, (1978), maintains that learning is socially constructed during interaction and activity with others. King (2002) reports that research on peer learning has shown that,

“..the interaction between and among the learners in a group influences the cognitive activity that is occurring, and it is this cognitive activity that accounts for the learning that takes place.”

Rather than the usual individually focused skills-based instruction that workplace training has traditionally been associated with, the use of socio-cognitive or constructivist principles in the development of competence and capability in the workplace means that the learner can be actively engaged in the design and development of their own learning journey. This approach adds to the meaning-making and relevancy of their learning. Further, learning itself has to become one of the core values of a ‘learning organisation’ and the more ownership of the learning that can be placed in the hands of the learner the better it is. As has been suggested:

“Learning is not something that requires time out from being engaged in productive activity; learning is at the heart of productive activity; learning is the new form of labour” (McAdam et al, 1998, online)

Course Design

A cohort driven model approach to the instructional design of the programme’s delivery was adopted to locate the communication between facilitators and learners and between learners at the forefront of the learning experience. This was done to provide the best opportunity of developing an ongoing learning community culture within the workplace environment.

Although the course was developed in a very short time frame it was, by the lights of its time, successful in its design approach, in that the learners successfully undertook the learning tasks and met the stated learning objectives. Unit standards-based learning modules are mostly competency-based and are generally designed from a behavioural/ objectivist standpoint, in which, *"behavioural objectives are written descriptions of specific, terminal behaviours that were manifested in terms of observable, measurable behaviour"* (Saettler, 1990, online). This style of course design does not at first glance, or in most extant examples, seemingly offer much opportunity for socio-constructive learning.

From the learner profiling process there was a view that this predominately mature male cohort of learners would be reluctant to engage with online discussion. As a result a conservative approach to using discussion as a learning tool was taken. Some Discussion Board activity was mandated and made part of the assessment as a way of at least initiating the learners in the asynchronous Discussion Board experience. One of the major surprises was that once exposed to the possibilities that asynchronous discussion offered the learners began using it far more vigorously than was initially envisaged.

Delivering training and education into the workplace

The first up delivery of the programme revealed some early problems in terms of the learner’s readiness to undertake online study, not the least of which was the client’s own network which despite assurances to the contrary, presented a major barrier to learner access. Levels of computer skills at the start of the course delivery

were also highly variable, again, in contradiction to the employer's assertion that all their supervisors were computer competent as their documentation was only available online, and this was also a source of confusion, frustration and concern early on.

A face to face orientation workshop had been planned and designed to address initial concerns about new software, get the learners underway and to kick off the online course. Due to the client's insistence it became necessary to postpone the workshop till some weeks after the course had started online and this gave rise to a range of issues, mostly to do with learner confidence, variable levels of support in the workplace and difficulties due to unfamiliarity with the new online learning environment.

Clearly a major downside of online learning in this sort of context is the lack of control over the environment in which the learners are meant to study or of the technology they are provided to work with. Some learners managed the technology issues by working from home, those who did not have that luxury struggled at times with inadequate access and technical support.

Support for the learner in the workplace was dependent on the goodwill of their line manager and access to colleagues who may be able to help, and as this was the first cohort to take the course, support from other colleagues was in short supply. Where line managers made themselves available and willingly provided support by such things as providing time relief to study or an appropriate space to study while at work, the learners managed much more easily than those who were not so fortunate.

It is also clear that with such a learner group an initial face to face orientation workshop that includes an introduction to the technology and to the fundamentals of online learning is essential. This however has yet to be achieved with any of the meat inspector cohorts due to the employer's unwillingness to release learners to attend an orientation workshop at the start of the programme.

For workplace learners the major upside of studying online seems to be the convenience and self-determined timetable of study that is possible with eLearning. Subsequent iterations of the initial courses have addressed many of the issues and one of the major benefits has been the willingness of those who were in the first cohort to provide advice, support and guidance to their colleagues in those cohorts following on behind. Once over the initial hurdles and despite early scepticism and some resistance the learners are apparently enjoying this form of study.

Applying new learnings

One of the most useful learnings from the delivery of the pilot has been the realisation of how discussion and group activities can provide real learning and greater depth of understanding of the topics being studied.¹

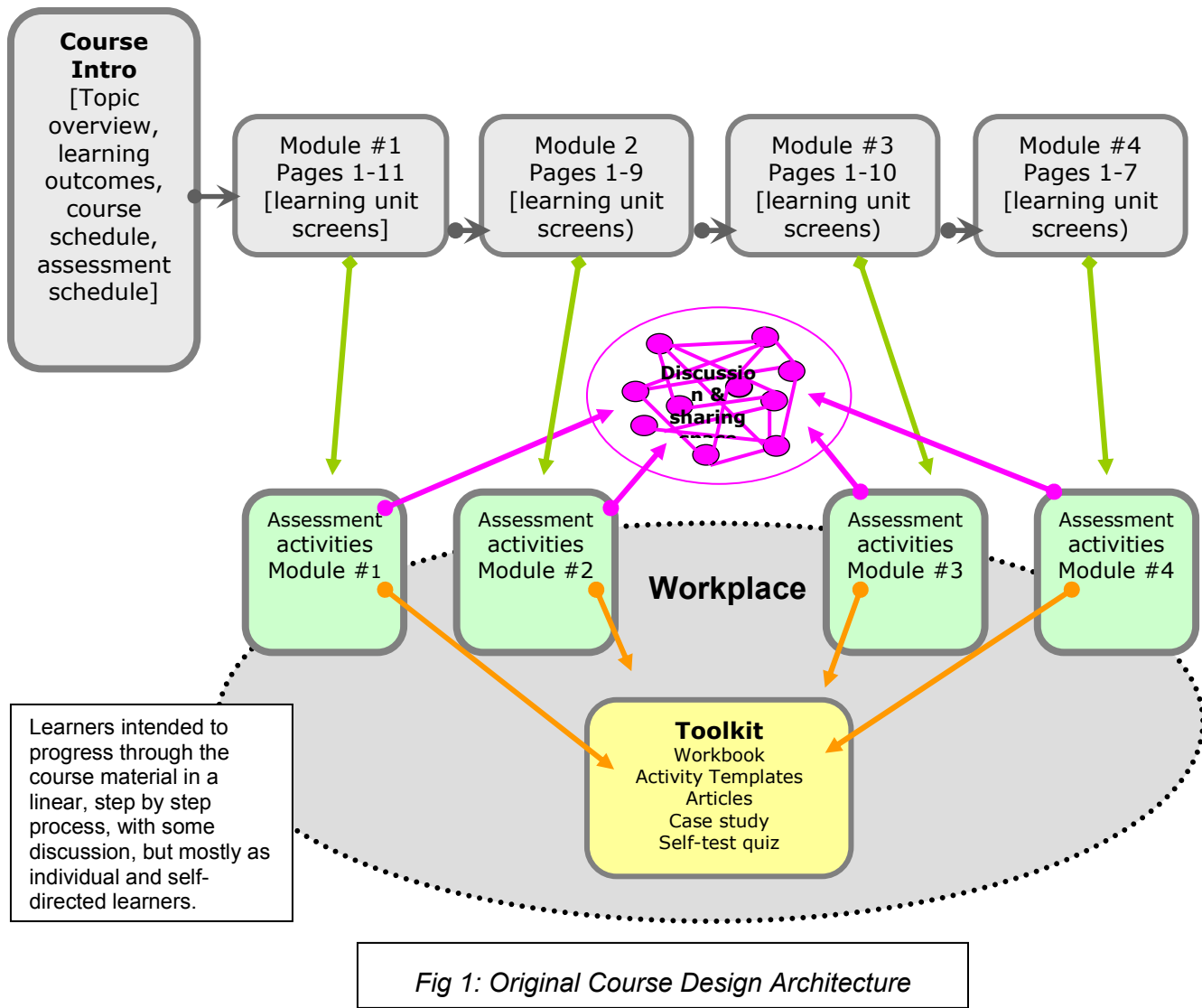
Additionally, it has demonstrated how peer interaction can help diminish the relative isolation of online study and how this may serve in the development of both a learning community and a community of practice.

It has also indicated how this aspect of peer interaction and collaboration might be applied and implemented. If workplace-based learners are operating in, what is essentially, a socio-organisational context then it would suggest that using a socio-cognitive and constructivist approach would be not only appropriate but provide an extra dimension to the learning achievements of the participants.

Re-thinking the design

In early 2003 the TANZ development team successfully bid for another government grant to take the learnings from the pilot eLearning management course and develop a similar programme for the core public service. It became clear that there was both an opportunity and a need to re-think the design, architecture and model of course delivery for the new programme in line with the learnings that we garnered from the development and delivery of the pilot. This programme has, till now, developed along the same lines as the pilot, and a variety of learner and assessment administration issues, generated from the pilot had already provided the motivation to rethink some of the instructional design features of the original model.

¹ In response to an end of course survey question, "Please rate how useful you found the Discussion Board for learning from your colleagues." 18 of 24 respondents said it was Extremely useful or Useful.



The original courses were designed in a manner that closely mirrored traditional correspondence-style distance learning models in that the learner is required to read through the content and then undertake specific activities to meet the required assessment outcomes. The reasons for this approach were several. The nature of the unit standards approach lends itself to this method, the tight time-frame dictated a pragmatic and expedient development strategy, and given that this was very much a “first time for all” project, the learning design was based on a model that the team was most familiar with.

The courses that make up the programme all used a workbook approach in which the learner enters answers, personal reflections and other evidential materials into a pre-prepared Word document template that is downloaded by the learner and subsequently posted to the ‘Digital Drop Box’ when completed. Although instrumental in considerably improving learners’ word processing abilities, it nonetheless proved a clumsy tool,

difficult for some to manage and generating a great deal of administrative work. The clumsiness of the workbook model and the workload associated with the academic administration of it demanded a different approach.

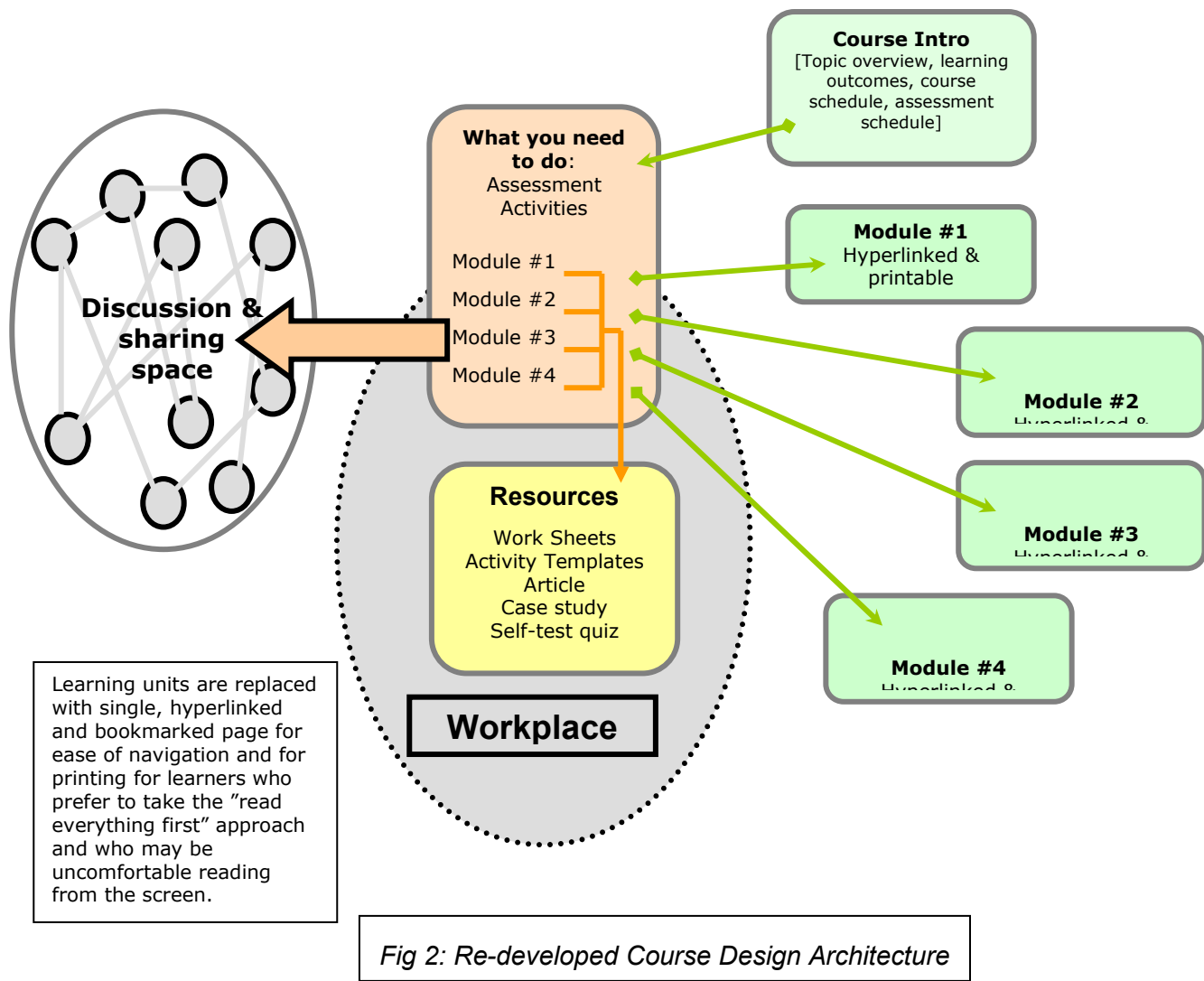
A new approach

It has been possible to effect fundamental change to how courses in this programme are negotiated without having to rewrite the courses by restructuring and re-sequencing the way the existing course content is presented. This expedient provides a more appropriate and useful pathway for the learners to work through the learning materials and by placing greater emphasis on the use of the Discussion Board and group activities, it has been possible to move the course much more towards a constructivist framework of learning. It has also provided the possibility of situating the learning activities more squarely and firmly in the learner's workplace.

In the first instance the original learning sequence was turned on its head and now the learner is presented with the assessable activities first and the reading materials are accessed as and when the learner requires them as a part of the activity. This approach was prompted by several comments by learners who wanted a more direct entry point for what they had to do for the unit so they could plan their approach and timeline.

The second strategy was to use the Discussion Board to achieve much of what learners were required to do with the workbook (see appendix A for visual description). This strategy also uses a journal approach so that learners can record critical reflections of their learning and current practice. The journal is used to record specific and significant incidents as the learners apply what they have learned from the course to their workplace contexts. The first critical incident of learning will be shared with others on the discussion board and the second will be submitted as an individual assessment task.

For some specific areas requiring individual provision of answers and evidential material a simple worksheet suffices. However, by dividing the cohort into several groups of no more than 10 learners and getting them to work collaboratively to, for instance, develop a set of principles of First Line Management practice based on personal experience, the readings and other media and then have them posted on the global discussion forums, it becomes possible to have all necessary assessment criteria met, monitored, sorted and checked electronically using Discussion Board tools. This considerably improves the efficiency of administration and marking and reduces the amount of individual assessment of each learner. (see figure 2)



Harisim (online), states that, "Online course activity based upon asynchronous communication yields an entirely new learning pattern: highly active engagement." By taking this new approach to the design, structure and delivery of this programme we expect that not only will the role of the Discussion Board activity play a much larger role in the learner's journey, but it will generate a long term effect of having the learner have the experience of being in a learning community which will carry over and become a living community of practice with colleagues beyond the life of the programme.

Harisim also notes that:

The principle of collaborative learning may be the single most important concept for online networked learning, since this principle addresses the strong socio-affective and cognitive power of learning on the Web (Harisim online).

She further comments that, “*Collaborative learning is the instructional use of small groups so that students maximize their own and one another’s learning.*” That being the case, then it would make sense to generate a learning environment in which the likelihood of achieving this outcome is given its best opportunity.

This approach was particularly appropriate as the client organisation that is collaborating on this project wants as much cross-sector collaboration and interaction as possible, in line with the public sector ethos of career advancement requiring all managers to have significant cross-sector knowledge and experience. The make up of the groups can and will be determined by the degree of cross-sector representation possible in any given cohort.

One further design feature was reorganised as a result of learner feedback. This involved abandoning the use of the Learning Units in Blackboard for the course content and using a single, printable HTML page with anchored hyperlinks and bookmarks that provide adequate navigation of the page. Originally the use of Learning Units was intended to break up or “chunk” the content so that it was easier to read on screen.

The eLearning designer was also keen to encourage the learners to develop the skill of reading directly from the screen. However, experience has shown that reading from the screen is not something most new eLearners are keen to do. It takes some while for online learners to develop this skill and therefore the ability to print the contents and be able to read it as a standard text is a priority. In meeting this need the designer was able to achieve another design objective, that of proper sequencing and chunking of the content, in line with the generally accepted view among web designers that scrolling long pages of text on a web page is poor usability.

To balance the need of the learner and still apply web design “best practice”, the pages were designed for maximum ease of reading; providing plenty of white space; using images and graphics to break up the text and by hyper-linking from a table of contents at the top of the page and having “Next” and “Contents” links at the end of each section. This solved both the problem of providing the learner with a printable page and attending to the readability and usability issues for reading from the screen. By including more hyperlinked content outside the course site within this page does encourage more direct reading from the screen as these hyperlinks cannot be accessed from a printed page.

Dramatised Interactive Scenarios

One important issue arose in the delivery of the pilot programme to the meat inspector supervisors. A number of the courses such as Positive Workplace Relationships, Team Building, Managing Workplace Conflict and Problem Solving have affective components that were originally intended to be dealt with and assessed in a face to face workshop setting. This however proved very difficult to achieve in the very limited time that the learners were available for the workshop. Also, because the workforce was so widely distributed, it was impossible for some learners to attend any of the workshops. The answer to this problem was to develop a series of dramatised interactive scenarios that would provide the learners with the necessary information to be able to satisfy the

majority of performance/assessment criteria for those topics. These have been created for the core public sector cohort and are being currently evaluated for their efficacy.

Some sections of the core public sector have rigorous security practices with regards to internet access and technologies like Flash and Java applets are not supported. This provided a major constraint in delivering web-based content into the core public sector. To get round this problem the dramatised scenarios were developed using photographs, audio and text to present a series of dramatised scenes. All of which were packaged within HTML pages. Restricted bandwidth issues for some learners is dealt with by providing transcripts of the actor's dialogue.

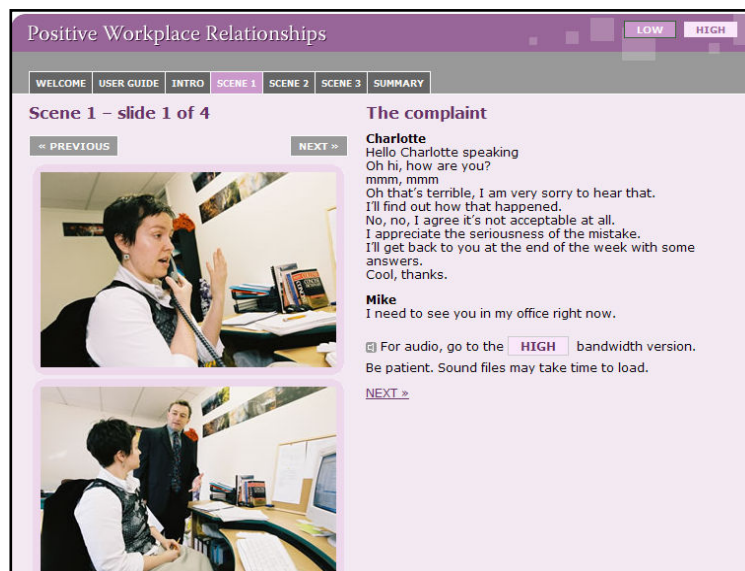


Fig. 3: Screenshot from the Workplace Relationships interactive scenario

These scenarios tell the story of a work group in a public service ministry who are responsible for a major ministerial report that has caused the minister serious embarrassment because of incorrect statistics featured in the report. They are designed to engage learners with the complexity and infinite variability of human relationships and the dynamics of social groups, whether in the workplace, on the sports field or at home. The learner is required as part of a group-based activity to investigate the dynamics of a team under pressure within a typical public sector organisation environment. By engaging with and reflecting on this affective content in an online environment the learners are able to gain insight and understanding of group dynamics in a situation where, in other circumstances, face to face role playing might have been a more typical teaching strategy.

Conclusion

Given the new target group of learners, this revised programme in some ways, has had an easier task in shifting from a largely behavioural-objectivist approach to that of a more socio-cognitive or constructivist model, than

would have been the case with the original meat inspector supervisor cohort. The new learners have been drawn from core public sector environments with most working from desks and routinely using computers, standard software applications and communications tools on a daily basis. The core public service also has an ethos of professional development, support for workplace-based learning and a commitment to the notion of lifelong learning.

The original programme delivered to the meat inspector supervisors is nearing the end of the second of three delivery cycles and, according to the company's Performance Development Manager, is achieving beyond expectations (Norton 2004). The later programme currently being delivered to the core public service learners is approximately half-way through its first cycle. While it is still too early to be totally confident of our continued success, the indications are very good.

An extensive independent evaluation into this programme is underway and it is anticipated that more information and many more learnings about the learner's experience and the success or otherwise of the eLearning design and teaching strategies will be forthcoming. A third project has just been approved, to develop and deliver a higher level, middle manager qualification and the collective learnings gained from the first two projects will undoubtedly provide a rich source of data with which to inform its design and delivery.

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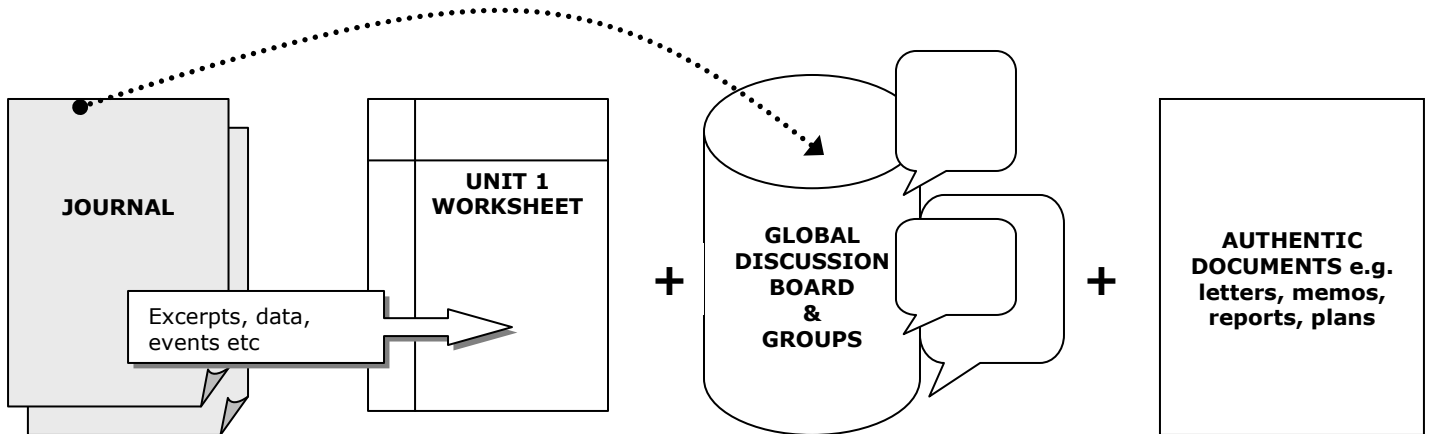
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Appendix A

Strategy for replacing the workbook

AIM: to replace the Workbook which is cumbersome for students to download and manage, and has also proved cumbersome for marking, especially when trying to chase up sections that are incomplete. Below, marking is completed at unit level for improved tracking.

A concurrent aim is to seek more specific evidence from learners demonstrating that they satisfy the performance criteria and avoid over-assessment. Therefore, it's proposed that some of the "process" activities be relocated to a not-for-submission journal; see below. The file format would still be Word – for lack of an alternative - and because it's the most ubiquitous and has transfer value in the workplace.



<p>The journal is a personal "process" place to gather data, record observations and reflect. Worksheet activities would call for distilled contents e.g. excerpts, summaries or conclusions which also present the incentive to keep the journal. Feeds discussion board postings. Operates at module level. NOT FOR SUBMISSION</p>	<p>Specific questions posed here with space for responses ("mini-workbook" format) with aim of fewer questions overall. Also poses discussion board questions. Demands input from journal. Incorporates own checklist. Available as a download from the "What you need to do" box & from Toolkit. Operates at unit level. FOR SUBMISSION / ASSESSABLE</p>	<p>More emphasis on Discussion Board as a location for evidence (i.e. requires more rigorous DB tasks). Increased interactivity here, less input on Worksheet. DB operates at module level, forums at unit level. FOR SUBMISSION / ASSESSABLE</p>	<p>Where possible and appropriate, real documents are submitted as evidence (may need some tweaking for confidentiality). Need dedicated marking guides. May satisfy PCs across several units. FOR SUBMISSION / ASSESSABLE</p>
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Detailed description of the eLearning designer's rationale for replacing the Workbook illustrating an integrated strategy of Discussion Board, Group Activities, Journal and Worksheet.

Courtesy of Wendy Fountain, Project eLearning Designer, (August 2004)