Blended learning:
rich experiences from a rich picture

By Rupert Brown

In many instances, a stand-alone simulation-based e-learning course can be a satisfactory solution for training. However, there are some situations where people need more than just online courseware.

Blended learning – the combination of instructor-led and e-learning methods – is probably one of the most successful training approaches used today. Not only does it provide all the benefits of e-learning, including cost reductions, time efficiencies and convenience for the user, but it also provides that essential one-on-one, personal understanding and motivation that only a human instructor can provide.

In general, e-learning by itself is an effective way for organisations to train their workforces. The overall effect of learning, however, can be greatly enhanced by also using the master-apprentice (instructor-led) model. This is because learning is made all the better when somebody takes an active interest in how well we are doing, and offers to give us a hand when we get stuck.

A HISTORY OF LEARNING

Before the invention of print, the only way to learn a skill or trade was to find somebody who was willing to teach you. In medieval times, this was characterised by the classic master-apprentice relationship where everything you learned was in the context, and physical space, of the workshop and the people in that space. As an apprentice, the way you learned was by:

- Listening to the master as they explained aspects of the job;
- Watching as they performed tasks;
- Completing a task under their supervision and with their guidance;
- Talking to other apprentices in the shop about their experiences;
- Listening to the stories and anecdotes of masters and journeymen; and
- Thinking about what you had experienced at the end of long day.

The invention of the printing press sparked a revolution for learning and education. For the first time in history, you could get information on how to do something from somebody outside of your workshop. The only problem with books was that they were strictly one way – the master wrote and every reader was left to interpret the true meaning. People needed a form of communication that promoted true interaction.

Enter the telephone and film. These new inventions allowed audiences to see and hear leading thinkers from around the world talk about their philosophies, ideas and inventions. Thousands of people could use the telephone or watch films, and they didn't need to read to do this.

THE INFORMATION AGE DAWNS

Given that we had the book, the telephone and film, it actually took a surprisingly long time for all of these ideas to come together to create distributed computers and digital networks. With the computer came computer-based training (CBT), yet this took quite a time to earn its credentials as a viable teaching technique. Early pioneers failed to:

- Appreciate the need for people to interact with people – not all of the time, but just enough to satisfy our fundamental requirements;
- Appreciate that books, the telephone, video and computer networks are just *channels* for information created by people; or
- Realise that most people didn't have access to the technology required to utilise CBT.

A CASE FOR BLENDED LEARNING

e-Learning, as we know it today, benefits from nearly twenty years of research and has progressed significantly since the first CBT packages became available. Despite its advances, people still need people to help them understand things and put the world into perspective. Only people can make the world a place in which we feel comfortable so that we can grow, develop and mature. This creates a strong case for blended learning.

With blended learning we can combine the value we derive from human interaction with what we achieve through e-learning technology to produce high-class, successful and valuable training. The challenge is to develop blended learning programs that deliver all the benefits of simulation-based e-learning, while ensuring people are supported through interaction with other people.

DEVELOPING A BLENDED LEARNING MODEL

A successful blended learning model requires a good training needs analysis and a deep appreciation of the support needs your employees have. The secret is to conduct a thorough analysis, focusing on what your real training needs are and how meeting these needs can best be achieved.

The 'rich picture' technique, borrowed from Checkland and Scholes in their book, *Soft Systems Methodology in Action,* provides an excellent starting point for such an analysis. This powerful technique can be applied to a number of different situations.

One of the hardest things to do is to start the analysis. Checkland and Scholes make the task easier by encouraging you to do a rough sketch – create the 'rich picture' first. The sketch will help you capture, and put into context and perspective, as many of the issues surrounding a training requirement as you can think of. Figure 1 is an example of a 'rich picture' for selling personal loans. At the very early stage of analysis in this example, the 'rich picture' indicates two distinct collections of training requirements. These are:

- Training requirements covering the *Interaction space* – the way the interaction develops between the customer and the sales person; and
- Training requirements covering the *Process space* – the actual completion of the personal loan application using one or more computer based systems.

Imagine now that further analysis has been performed. This analysis revealed that the Process space could be comfortably folded into the *Interaction space* as one of the requirements. The Instructional Designer performing the analysis was then able to create a summary training needs group analysis, shown in
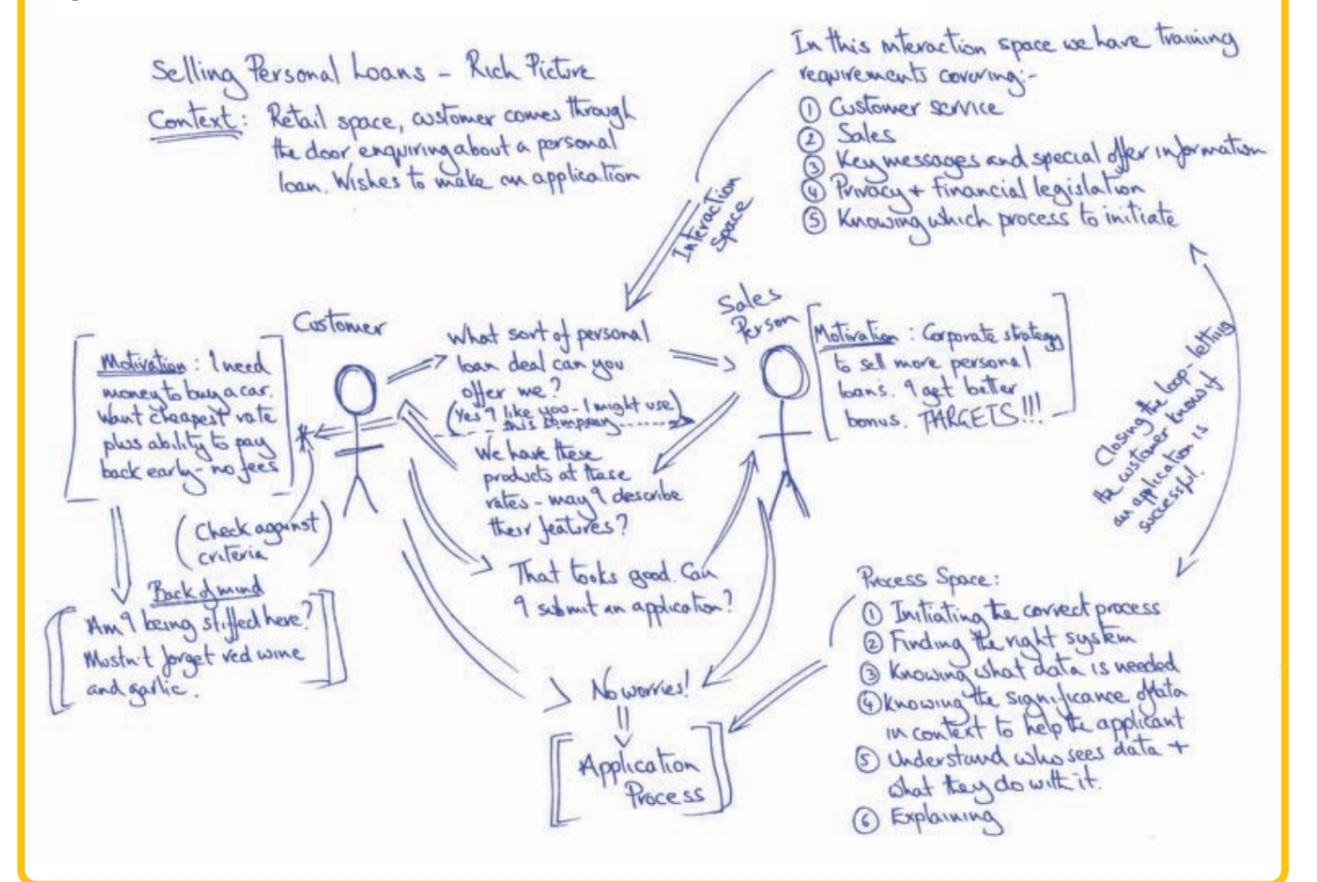

Figure 1: Personal Loan Rich Picture

Table 1: Personal Loan Summary Training Needs Group Analysis

No.*	TNG Name	Training needs summary
TNG001	Customer service	• Meeting and greeting • Putting people at ease • Listening carefully to what they're saying • Understanding their needs • Choosing the appropriate course of action • Closing the interaction with clear actions
TNG002	Sales of financial products	• Listening carefully to the customer • Using targeted questions to determine needs and motivation • Understanding needs and confirming by restating • Knowing the current range • Selecting the 'best fit' product • Offering the product in the context of the customer's needs • Responding to questions • Closing the deal
TNG003	Key messages – special offers	• Knowing the key messages • Understanding the context in which they are to be delivered • Knowing the special offers
TNG004	Legislation – Privacy Act	• Make the customer aware of the Privacy Act • Get permission to gather the information required • Explain how that information will be used • Confirm that it will not be shared with third parties without consent
TNG005	Legislation – Financial Services Act	• Understand the implications of the Act • In dealing with customers comply with its requirements • Explain the protections they are entitled to under the Act
TNG006	Application and approval process	• Knowing and understanding the process steps • Identifying and navigating to the correct computer system • Understanding the data requirements: - What data is needed - How it is used - Who sees it • Using the system to complete the application

*   Note that TNG stands for Training Need Group and indicates that the table item has to be rendered into more detailed, specific training need statements.

Table 1. This table represents a key step in the analysis process. Each Training Needs Group (TNG) is identified, with notes pointing to specific training needs within each group.
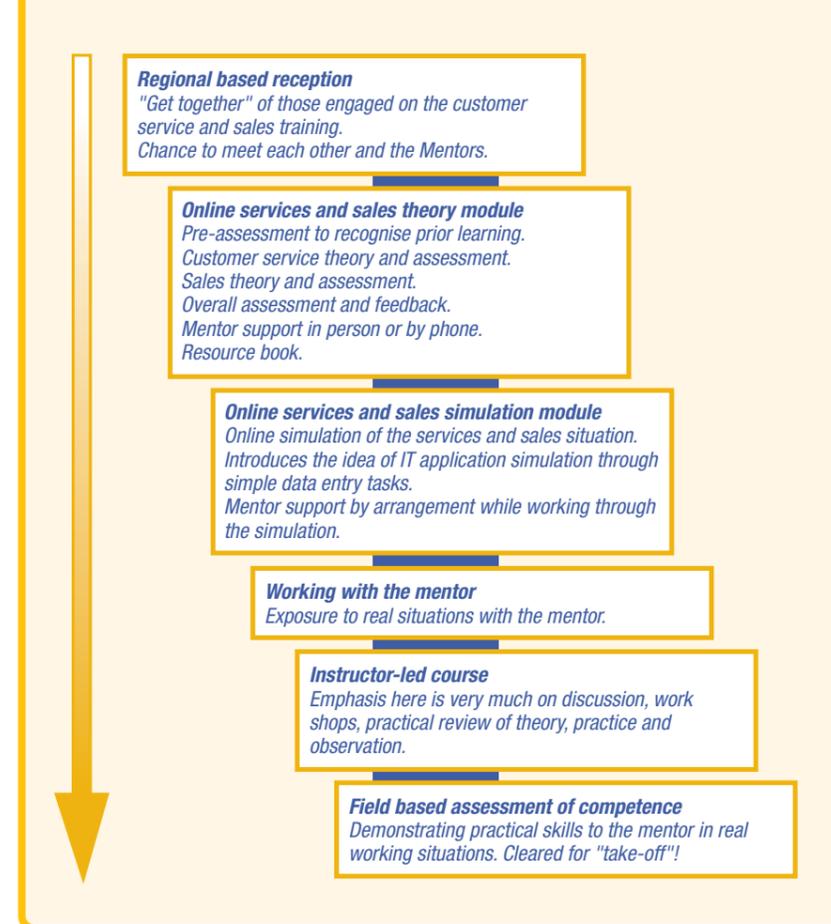
The next step in the process is to break out, in detail, all the 'training needs' statements associated with a TNG. In some cases, specific training needs may be very similar between groups. This is a great indicator of how training courses may be structured later in the process.

Once your training needs have been stated, the course design can start. It is at this point that the training medium has to be considered. This is an essential instructional design skill. Given a training need, an Instructional Designer will dig into their personal 'tool box' to create a courseware solution to satisfy the need. A number of variables can be controlled in the creation of the solution, for example the delivery medium may be instructor-led, private study, online simulation or a combination of all three.

Consider the TNG sections *customer service* and *sales of financial products*. The Instructional Designers consider that the training needs of these two TNGs are so similar that they may be treated as a single entity. They then decide that there are two aspects to this kind of training. The first aspect relates to the theories of selling and service. They decided that these theories are best delivered as an e-learning course using a customer interaction simulation. The second aspect they determine is that people will need 'people to people' help with the practice. To achieve this, they plan on doing two things:

• Introducing a sales mentoring scheme, where a new sales person can work with an experienced person and learn from them directly; and

Figure 2: Blended learning model

Regional based reception
"Get together" of those engaged on the customer service and sales training.
Chance to meet each other and the Mentors.

Online services and sales theory module
Pre-assessment to recognise prior learning.
Customer service theory and assessment.
Sales theory and assessment.
Overall assessment and feedback.
Mentor support in person or by phone.
Resource book.

Online services and sales simulation module
Online simulation of the services and sales situation.
Introduces the idea of IT application simulation through simple data entry tasks.
Mentor support by arrangement while working through the simulation.

Working with the mentor
Exposure to real situations with the mentor.

Instructor-led course
Emphasis here is very much on discussion, work shops, practical review of theory, practice and observation.

Field based assessment of competence
Demonstrating practical skills to the mentor in real working situations. Cleared for "take-off"!

• Creating a three day instructor-led customer service and sales course.

The structure for this 'blended learning' component of the training is shown in Figure 2.

The route taken by the Instructional Designers for the TNG *Application and approval process* is slightly different. Having already been through the process for the customer service and sales course, by the time they get to the detailed design of this courseware the designers can see that a simulation is the most effective way to teach the loan application process. This is because it can be delivered remotely with all the inherent cost savings but still facilitates the highly effective 'learning by doing' mechanism, as outlined in the 'Cone of Learning' model by Edgar Dale in his book, *Audio-Visual Methods in Teaching*. The designers decide that the simulation should be delivered as another module within the customer service and sales course structure. Their concern, however, is that as the loans application system is new, there are not enough experienced people out in the field to provide adequate mentor and coaching support. So their solution is to:

• Develop an online loans application simulation to be delivered as another module within the customer service and sales course; and

• Recruit and train a group of subject matter experts in the loan application process to act as on-site mentors.

It is important to note that the above example demonstrates one of many possible solutions for design. This is because there is no single best way to produce high-quality, high-value blended learning programs.

This article has introduced a simple technique, the 'rich picture', to help Instructional Designers start the process of training needs analysis. The actual allocation of training needs to courseware elements is a key instructional design skill. The most important thing to remember is that the best blended learning programs will emerge when courseware elements directly address training needs.

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ABOUT THE AUTHOR

Rupert Brown has more than 16 years' experience in software development, and project and divisional management. He has worked on many challenging projects during this time, including the safety critical software used to track the Ariane 5 satellite launcher and the electronic tag-based tolling system used on Melbourne's CityLink road network.

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