



Training and development of the people within an organisation is widely recognised as a cornerstone of success. But once the decision has been made to invest in training, how can we overcome the human barriers to learning that stand between investment and success?

This white paper examines some of the common barriers to technology-based learning (e-learning), and how they can be overcome by the structure of the learning strategy.

## Introduction

According to research conducted by the Bureau of Labour Statistics in the US, unless we address the skills development requirements presented to us by technological advancements, only 20% of the workforce will have the skills required to perform 60% of the jobs in the next decade. The skills gap will have a direct impact on organisations' ability to continuously improve processes, products and services.

Competitive pressures and customer expectations, particularly in levels of customer service, continue to rise. Bringing new products and services to market ahead of competitors is a key focus. Employees are being trained to think more strategically in order to help improve the business and to drive the organisation forward.

Clients are telling us they need training solutions that deliver fast, focused employee skills and outcomes. These solutions must map to mission-critical competencies that tie to corporate objectives and goals.

## Why Train?

Before the barriers to learning can be identified, we must first understand why e-learning has been chosen, and where it fits into the overall learning strategy.

Implementing a new training strategy can in almost every case be linked to a business critical event. For example; new software rollouts, upgrades, process changes, legal compliance, new products, call centre recruitment drives, and cultural changes such as mergers and acquisitions.

At First Group, simulation IS training has been incorporated into formal scheduled tutor-led training, as a retention tool. Learners are provided with access to post-classroom material via a central branded training intranet. Branding is consistent throughout both the training material and the training and STT modules, to provide a coherent look and feel. Various training resources are accessed through a "single self service" point, providing learners with 24hours a day/7 days a week access.

Clear terms and conditions describe not only the obligations of the training provider but also the responsibilities of the learner.

IS Training Manager **Niall Gavin**, says, "The team is very clear that technology should be seen as an enabler of learning rather than the objective itself."

Software application rollouts require both project management and careful change management for those who will be using the new system.

## Finding the Right Balance

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The most successful projects are those which use simulation training to complement traditional training methods. By providing simulation training in the classroom, the trainer's time can be used more effectively. Trainers can concentrate on the human element of training, providing business context, personal relevance, on the job practice, and aiding the change management towards new processes, and new ways of learning.

## Barriers to Learning

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There are a variety of ways in which people resist changes, and if the way in which they are trained is new to them, they will extend this resistance to training. Barriers to learning include:

- Resistance to change
- The perception of no time to learn
- No experience of self-learning
- Content is not relevant or engaging
- Fear of technology

Information Technology is undoubtedly the most important development in industry in the past 20 years. However, the way in which we behave in our day to day use of technology can either be successful ("how much faster and more efficient we are by placing an order in a fraction of the time") or disastrous ("We don't know how to place an order on the new system and customers won't receive their goods in time").

## Resistance to Change

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A new application or an upgrade has a major impact on the way that people carry out processes. Application users may not understand what the benefit will be to them as an individual or empathise with the benefits to the business. They might disagree with implementation of the new system, feel they will have more work to do than before, or feel undervalued as they could not see that there was anything wrong with the existing processes.

There are four key points to managing change.

1. People react in different ways
2. Each person has a set of needs which need to be met
3. Expectations need to be managed realistically
4. Fears have to be dealt with

A good line of communication between the IT roll-out and training teams ensures openness about the changes, and helps people understand why they are necessary. Inclusion of users at an early stage of the project can help ease the transition, and uses existing knowledge to become more efficient.

## No Time to Learn

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Learning new skills should be viewed as a personal not a business gain. However, busy people are hard to convince that taking a few hours out for learning will pay off in the long-run and eventually make their job less stressful and more efficient.

Management must support and promote the importance of training and make it a measurable objective. Changing attitudes to be inclusive of encouraging training can promote a culture in which individuals take responsibility and become pro-active in being trained.

### No Experience of Self-Learning

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In formal education systems, students are told what they are about to learn, taught it face to face, formally tested on it, and formally told how much of it they have learned. There are few choices given, and there is little control given to the student other than the choice of working hard or not. Self-learning on the other hand requires the learner to identify what they need to learn, go and find it, be motivated to learn it, and find an objective way of measuring whether they have achieved their goals successfully.

### Content Not Relevant

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Good instructional design is essential to engage learners. If the way in which the content is worked through is boring or simplistic, the learner can lose interest in the training and the subject very easily. If the learners do not use the content, the training project will fail.

In the case of a software application rollout or upgrade, training content must reflect exactly how the application will look and perform in real life, while providing a safe environment in which to learn from mistakes. Simulations of the live system coupled with business context, helps to make learning as realistic as possible.

Making simulation based training available at any time is crucial. Learning used to be at the 'moment of need', in the last few weeks before the application roll out was happening. This is still the critical time to teach people new skills (i.e. right before they need to use it to maximise their consolidation of skills), but equally as important is a continuous path of learning after the initial rollout, to develop skills at the same rate as the use of the new application increases and intensifies.

### Fear of Technology

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It is important that the technology does not leave the learner feeling alienated. Delivery should be easy to access, and user friendly. Providing a simulation of the real life application rather than training on the live system can help familiarise learners with the technology in a controlled manner.

### Creating Momentum

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Monitoring and reporting on training activity and providing feedback to learners and managers creates momentum, and gives a true picture of the effectiveness of training delivery and uptake.

Providing a deadline date for lessons to be completed adds momentum and urgency to learning. There are a number of ways to accomplish this: make self-paced lessons a prerequisite to scheduled classroom training, suspend system access until training has been completed, or agree a date after which a training course is removed from the repository. In order to measure learner activity, a method of reporting and measurement must be in place.

Using training needs analysis, basic skills levels can be identified and addressed as a prerequisite of training.

## Success Points

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The barriers to learning discussed above can be overcome by the use of today's advanced tools for the authoring of e-learning content. STT Trainer, by Kaplan IT Learning, provides simulation-based e-learning lessons to help end-users develop and maintain proficiency on software applications.

A software simulation allows users to attempt tasks in what appears to be their "live" system environment – with the difference that a mistake made in a simulation does not have a negative impact on the live system. End-users are guided with step-by-step instructions and support as they attempt to perform a task in the simulation of their live system.

The result is faster learning and higher levels of retention and confidence in the end-users' ability to competently use the live application. End-users feel more confident because they've "learned by doing" in a realistic simulation of the actual system or software they will be working on. They learned by thinking and exploring in the simulation without fear of making mistakes that will affect the live system.

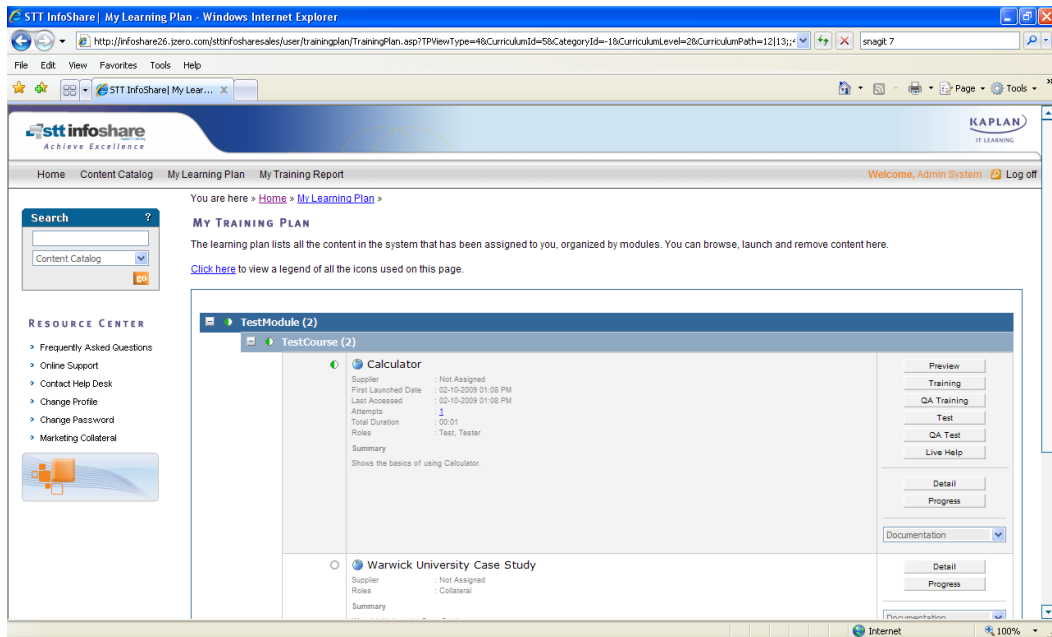
Using Kaplan's STT Trainer in place of a live system as part of classroom training saves the need for an isolated training area on the live product, and introduces learners to the concept of using the simulations, and referring back to them post-training.

Simulation training is an effective tool for testing user acceptance of a new application prior to go-live implementation. For pre-live testing on systems, STT Trainer lessons can be used by IT teams within test facilities such as HP Quality Center.

## Deployment and Reporting

Learners need to be able to access training documentation and live help quickly and easily. It also needs to be the right content for the user, and be easily searchable.

A single learning portal which is customised according to the audience means that branding can be applied. The most popular way of providing access to learning is via an intranet or extranet location. Both STT Trainer and STT InfoShare come with a standard web interface which can be customised.



Deployment through a single point provides detailed reporting. STT meets a number of reporting requirements.

Project management reports track content development throughout the authoring life-cycle, training activity reports track all training done, errors made and scores, and STT InfoShare reports can be customised to report by data such as job role, country, department etc. They can also be exported to MS Excel for advanced analysis.

Training managers and IT project managers also feel more confident in letting end-users begin working in the live system. Learners have been tested or assessed much more accurately using the same simulation, their actions have been tracked and statistics on their training performance have been recorded for managerial review.

## Driving Down Costs

The time required to create a complete library of training content can be dramatically reduced by using simulation tools such as STT Trainer. According to Bernd Wiest at Deutsche Telekom's T-Online "The blended learning approach – (classroom-based combined with simulations) – has saved us approximately 30% of the training time we previously spent. With a call center as busy as ours, it's highly critical to find time slots for training, so we need to ensure that every minute spent in training is effective."

For The Big Lottery Fund “the implementation of STT Trainer meant the cost and time of transporting trainers around the country between the various sites was reduced. A blended approach was taken so that group training sessions could still be conducted in classrooms if necessary and if the number of trainees justified this style of delivery, but refresher training and small training requirements could be met at the users’ own desk.”

## Post-Training Support


According to Kirkpatrick’s ‘Learning and Training Evaluation Theory Model’ stage 3, effective training requires behaviours to change. Measuring behavioural changes can be difficult, although some software solutions and tools do provide productivity reports on specific areas or processes. If productivity can be measured before training and after on a regular basis in conjunction with training cycles, increases in competence levels can be measured. In order to ensure that skills learned in the initial training affect behaviour back on the job, various methods of retention and consolidation can be used.

## Documentation

Documentation which corresponds exactly to the simulation training is a very effective tool. Using STT Trainer, various formats can be created such as a quick reference guide (with point by point instructions), an end user guide (which could include screen images of the live system with instructions) or a reviewer document for user acceptance testing (providing screen shots, instructions and space for reviewer’s notes).

**Create New Contact**

Tutorial Summary	
Author Name	Administrator
Date	3/19/2008
Time	9:34:14 PM
Source Lesson	Create New Contact
Word Template	STT Basic Template.dot
Filename	CreateNewContact_002.doc

Documentation dynamically generated by STT Trainer 

Source Lesson: Create New Contact Page 7 of 7

**Screen 1: Salesforce Kaplan IT Learning Home**

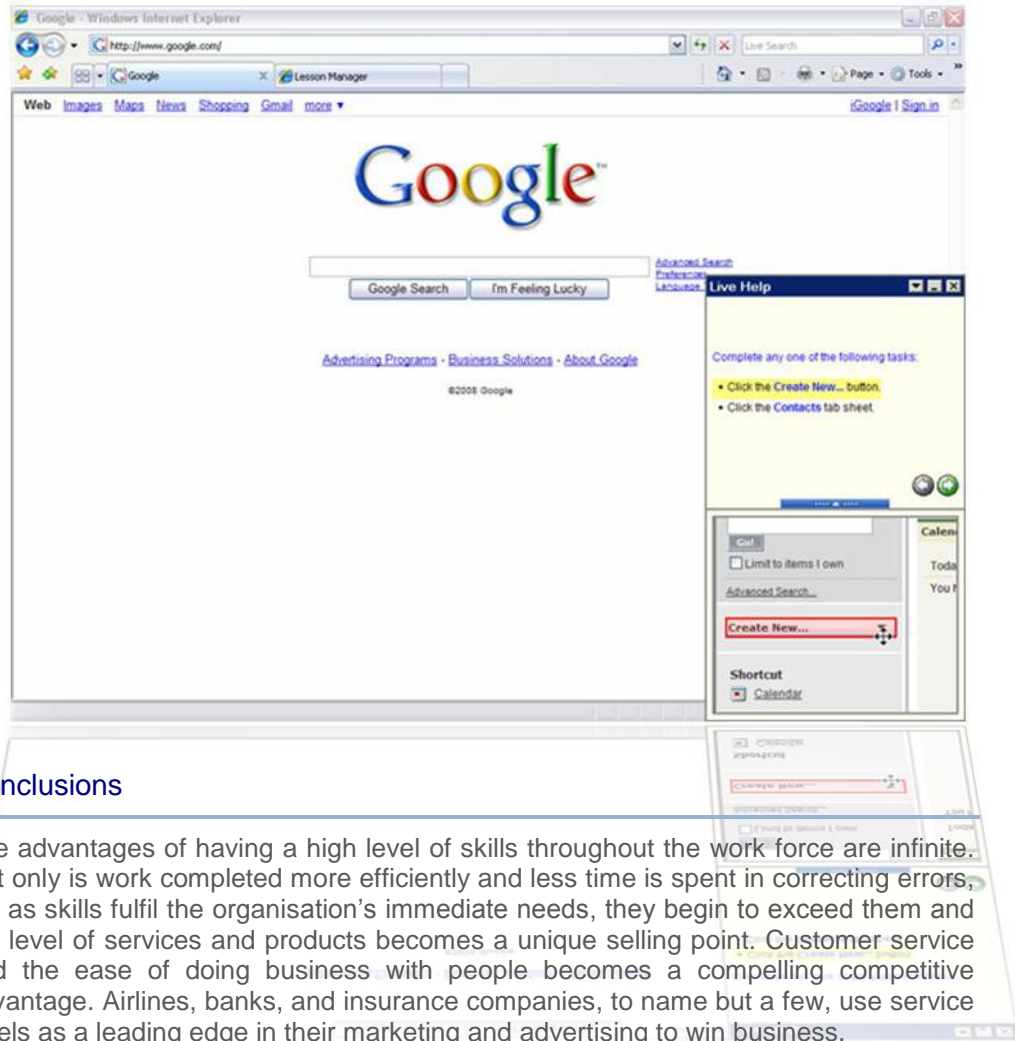
Click the **Create New...** button.  
OR  
Click the **Contacts** tab sheet.



Created On: 3/19/2008 9:34:14 PM Last Saved: 2008/03/19 10:20 PM  
Created By: Administrator Last Saved By: Diane Fowler

## Live Help

On-screen support such as STT Trainer’s Live Help, provides immediate support while in the live system. When the live help file is accessed it ‘floats’ at the front of the display, allowing the user to navigate to the live system they are working in. It shows step by step instructions and an image of the screen with the button or area to be clicked highlighted to make it easy to follow the instructions accurately. The user then carries out each step in the live system as shown in the instructions.



## Conclusions

The advantages of having a high level of skills throughout the work force are infinite. Not only is work completed more efficiently and less time is spent in correcting errors, but as skills fulfil the organisation's immediate needs, they begin to exceed them and the level of services and products becomes a unique selling point. Customer service and the ease of doing business with people becomes a compelling competitive advantage. Airlines, banks, and insurance companies, to name but a few, use service levels as a leading edge in their marketing and advertising to win business.

In the case of a new enterprise application which will affect people in every department, it will only succeed if it can be used by the go-live date. Users must be trained in readiness for the new system and processes, and receive updated training every time there is a change that affects them. By providing STT Trainer simulation training, organisations such as Deutsche Telekom, Shell and Airbus have been able to match the exact requirements of the system and provide post-training support and help.

Training content needs to evolve at the same pace as the applications and the needs of the organisation in order to reflect system and process improvements and changes. Therefore, self-sufficiency and in particular the ability to edit training content at any time and over and over again, can have a considerable impact on how effective training can be.

Content is only one part of a successful learning solution. Classroom training, on the job mentoring and coaching, the ability to deliver learning across the organisation, post-training support, reference and help material, and monitoring the learning activity to identify successes and failures, all come together to provide a complete training strategy.

A continuous path of development ensures that a skills gap does not appear between competent users and new staff or those who have not consolidated their skills immediately.

Most importantly, the people in the organisation are the key success factor. Successfully delivering knowledge to them, and ensuring it is put into practice and improves day to day efficiencies, can make or break a learning strategy.

### **Further Information**

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If you would like further advice on how to overcome the barriers to learning, or to discuss how to improve the success of your training strategy, we have nearly 15 years experience in doing just that. There are over 200 organizations worldwide and more than 275,000 learners using the award winning product STT Trainer as their solution for IT application training.