



adaptive learning

Eliminating Corporate
E-learning Fatigue



WELCOME TO ADAPTIVE LEARNING!

Firstly, thanks for downloading this whitepaper.

For more than twenty years, Area9 has been researching human factors, learning, product development, content development and computer science. That research has led us to adaptive learning—what we believe to be the solution to e-learning fatigue—and the best solution to deliver personalized learning at scale.

Adaptive learning is used by millions of students in schools and colleges and has yielded tremendous results across all age groups and achievement levels. If you have school-age children, they are probably using adaptive learning without you knowing!

Adaptive learning is moving into the corporate world. It has the capability to solve many of the problems that have plagued e-learning for the last thirty years—problems that have led many employees and business leaders to have a less-than-rosy view of online training.

It is time for adaptive learning to take its place as one of the truly transformational approaches to corporate education. I hope that this white paper will give you an introduction to the capabilities of adaptive learning, and prompt you to want to learn more.

Nick Howe
Chief Learning Officer, Area9 Learning.



ELIMINATING CORPORATE E-LEARNING FATIGUE!

How efficiently do you train your employees?

Do they retain and practice all they learn during expensive training courses? If you've invested in e-learning, does it have a direct link to your business objectives?

Effective corporate training

Any investment in corporate training must be effective, and aimed directly to support of the goals of the business. Unfortunately, the reality is that employees have very little time to devote to learning while they try to carry out their daily business activities.

Technology-based training

Technology-based training is undoubtedly the future of employee training, but to be effective, technology-based training must have a clear purpose and incorporate the right learning science principles into the design of the program (Bedwell & Salas, 2010). Right now, most programs are designed around workbooks, lectures, videos, and simple e-learning 'page-turners.'

Adaptive learning

Adaptive learning technology is built on learning science principles, and focuses on the knowledge and skills that employees do not possess or are less confident about. The adaptive technology makes it possible to maximize every minute spent for each individual employee.

Engaging and effective

Good learning needs to be more than just efficient. Online training has a well-deserved reputation for being boring and ineffective. The 'teaching-by-asking' approach that drives the adaptive engine is proven to be inherently engaging—eliminating the need for complex new strategies like gamification, and eliminating e-learning fatigue.



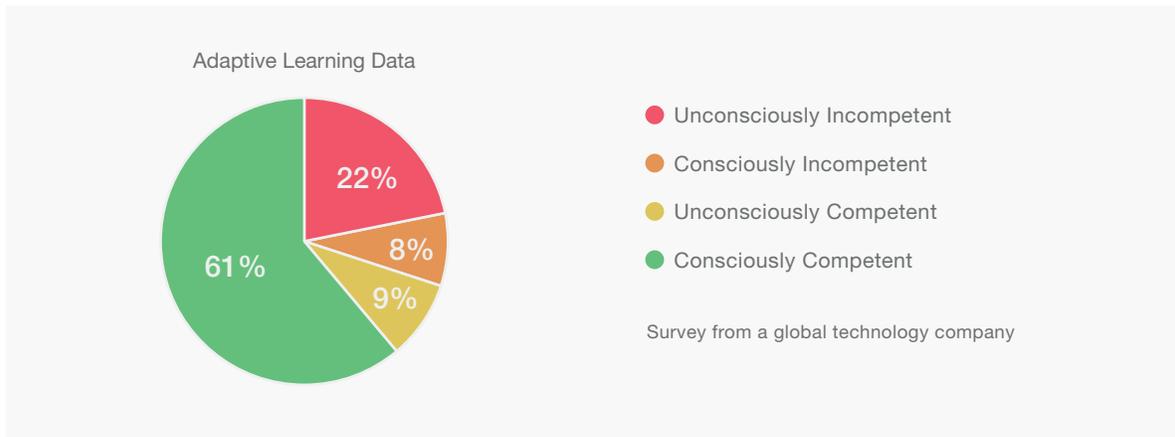
UNCONSCIOUS INCOMPETENCE

You don't know that you don't know

Data from Area9 Learning's corporate clients show that between 20-40% of employees are "unconsciously incompetent" in critical competencies that they are required to master in order to perform their jobs. The figure below shows data from a global technology company, where a course delivered adaptively showed that 22% of the sales employees were "unconsciously incompetent" about features of a product—i.e., employees believed they knew product features when in reality they did not.

Highlighting knowledge gaps

Employees who are "incompetent" about product features (or about any aspect of work) are a huge liability and an obstacle to unleashing the full potential of your business. Adaptive learning technologies can highlight where the employees have knowledge gaps and remediate these areas. That will increase overall competence and reduce liability, improving both company financial performance and the society at large (Agunis and Kraiger, 2009).



Well-designed training works

Meta-analyses integrating a large number of empirical studies across various training areas from manager training to cross-cultural training (and all forms of employee training) consistently show that when training is designed systematically and based on the science of learning, positive results are reported (Arthur, Bennett, Edens, & Bell, 2003; Collins & Holton, 2004; Keith & Frese, 2008; Powell & Yalcin, 2010; Salas et al., 2008; Salas, Nichols, & Driskell, 2007; Taylor, Russ-Eft, & Chan, 2005). In a study of nearly 1,000 companies, Huselid (1995) documented that the use of high-performance work practices (including effective recruitment and selection, compensation systems, and training) predicted employee retention and performance as well as long-term measures of corporate financial performance.



ONE SIZE FITS NONE!

It is time for change

Most companies already have a learning infrastructure in place that includes some form of traditional e-learning. But these e-learning programs often lack the specificity that would make them valuable to individual employees. By replacing 'one-size-fits-none' e-learning with personalized adaptive e-learning, companies can rapidly increase employees' effectiveness and "conscious competence", and decrease time to proficiency.

Continuous self-assessment

This can be achieved by continuous self-assessment as shown in the example adaptive question below. Learners rate how well they know a given piece of content (i.e., how confident they are) before the answer is revealed or a task is performed. The data from the self-assessment is then used to further adapt and individualize the experience. This ensures that learners are not only proficient, but also fully confident in their knowledge. (Note that although the example below uses a multiple-choice question, good adaptive design incorporates a wide variety of question types.)

The image below is a visual representation of the _____.

Click the answer you think is right.

Project Manager's Triad

Project Pyramid

Project Constraint

Project Manager's Triangle

Do you know the answer?

I KNOW IT

THINK SO

UNSURE

NO IDEA



MOTIVATION

Driving engagement

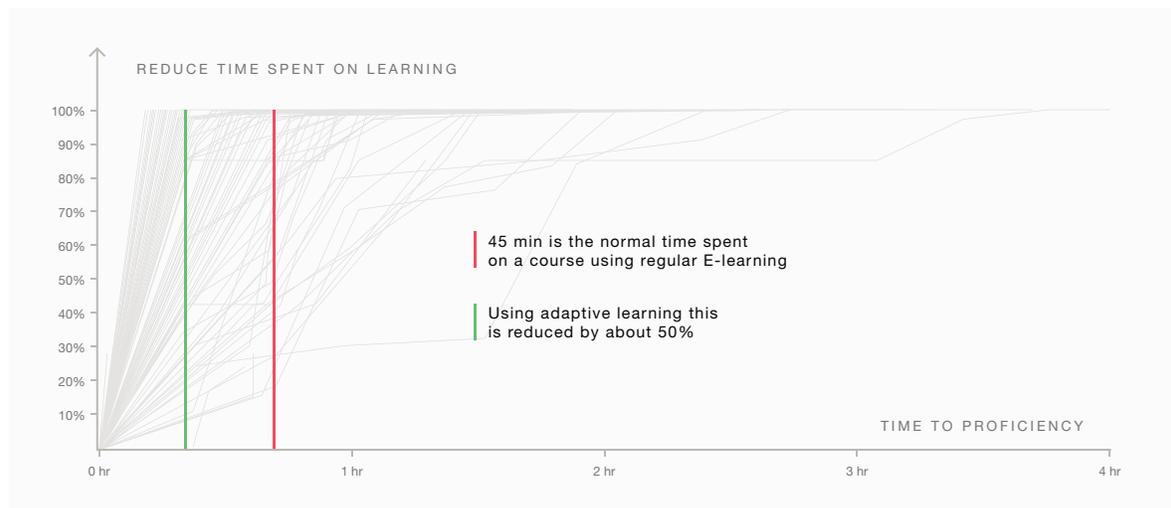
Motivation is key to ensuring that employees stay engaged with learning activities. Adaptive learning environments are designed to enable employees to quickly (within minutes) start to focus on areas in which they are least proficient or confident. When this is coupled with clear progress indicators, learners tend to stay longer with the learning activity, simply because they are continuously challenged with content and exercises that are specifically relevant to each individual. The feeling of progress over time, rather than getting stuck, can increase learning compliance. Data shows that with this approach, people are more likely to obtain full proficiency instead of quitting in the process, as can be seen in the graph below.

Adaptive training is effective and efficient

The graph below also highlights the reduction in time that typical learners experience compared to traditional e-learning approaches. Since the adaptive engine focuses learners' time on only those areas that require development, time savings of 50% are common.

Making learning stick

Well-designed training also ensures appropriate rehearsal of material that employees are likely to forget after initial exposure. By modeling each learner's individual forgetting curve for critical knowledge, the program makes sure that employees are re-exposed to specific material right before they are about to forget it. Such targeted refresher training effectively means that employees spend less time brushing up on previously acquired knowledge and skills, while maintaining their overall competency levels higher over time (Bjork, R. A., 2013, Salas, E., Tannenbaum, S., 2012).





HOW IS EFFECTIVE ADAPTIVE LEARNING DEVELOPED AND DEPLOYED?

The adaptive platform

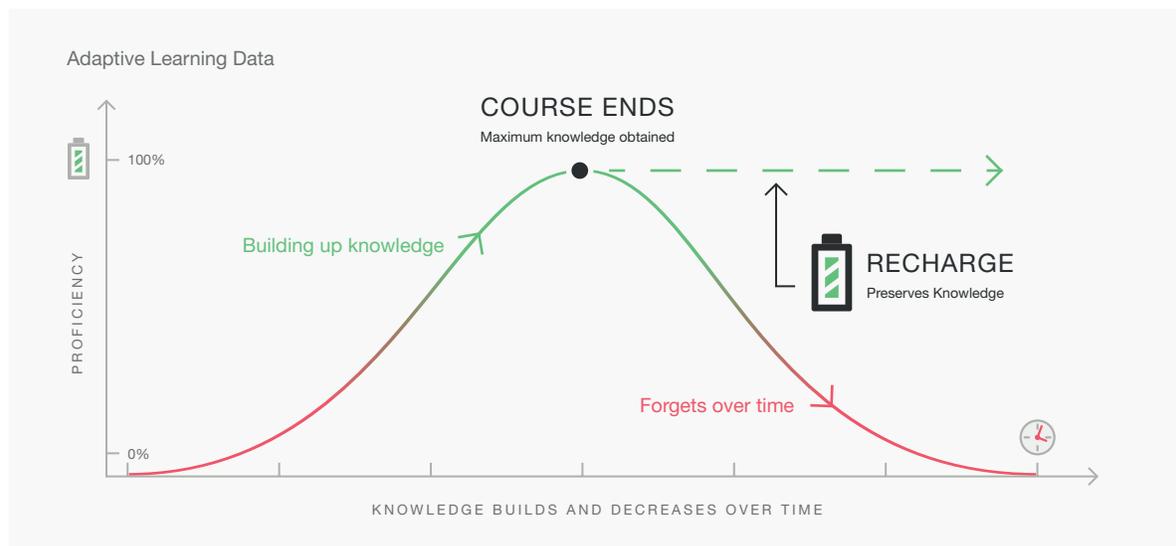
Effective adaptive learning requires a powerful adaptive engine—attempts to construct manual adaptivity using traditional e-learning development tools will not achieve true personalization.

Chunking

Content must be bite-size to allow for learning to be as personalized as possible, learning objectives must be robust and granular, and questions (probes) must be written so that the adaptive engine can assess learners' knowledge. Legacy content can be adapted to fit this granular approach, and organizations and e-learning developers can quickly master the necessary skills.

Online, blended, and in the classroom

Using the 'flipped classroom' model, employees can arrive at expensive in-person training having already completed adaptive e-learning courses, and instructors can see where individual employees may be struggling. This makes it possible to make the most of the 'face time' spent in classroom settings. Adaptive learning is also a great way to run a 'refresher' on these courses in as effective and efficient a way as possible (since adaptive learning 'remembers' what the learner did well and struggled with, so optimizes the 'recharge'.)





THE BOTTOM LINE

Adaptive learning

... is a proven, evidence-based approach that has been successfully used by millions of learners in almost every subject.

While adaptive learning is not the cure to all organizational training challenges, it is a highly-effective, efficient and complementary solution, and a way to eliminate e-learning fatigue.

If you'd like to learn more about Area9's adaptive learning platform, or would like help with adaptive content development, content conversion or skills transfer, visit www.area9learning.com

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