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### **Attention! Learn at Ease!**

*Measuring the attention levels of online learners is not impossible...*

Eye movements and facial expressions are a dead giveaway of an individual's feelings and emotions. A nod in agreement, or even a smile assures the speaker that his or her audience is with him / her. A lack of eye contact, a slight sigh, or a frown may indicate that listeners are tuning out. A trainer who understands the importance of body language can use these subtle cues to gauge his or her learners' attention levels.

However, monitoring learner attention by studying their body language is only possible in a classroom where trainers are face-to-face with their students.

### **Quandary!**

Learning professionals face a challenge when they have to measure the attention levels of online learners. In virtual classrooms a trainer cannot view a learner's response to an online course.

The fact that an online learner faces more distraction than his or her classroom counterpart compounds the problem. While there are some common classroom distractions (i.e. daydreaming and looking out of the window), online distractions are more in number. With the learner receiving training at his or her desktop, he or she is more vulnerable to distractions. These distractions could be in the form of phone calls, e-mails, or interruptions by colleagues and friends.

### **Keeping a tab**

While IT-savvy employees are good at multi-tasking, a trainer has good reason to suspect that the online learner is not paying due attention to what is being taught. Most online trainers try to resolve the problem by prodding their learners to answer pop-up questions, a poll or choose from options. However, a recent study revealed that such frequent artificial interactivity frustrates or tires the learner. As a result, these solutions may not measure attention levels accurately.

Monitoring technologies have a long way to go before they provide trainers with facilities to accurately measure the attention levels of distant or virtual learners. However, until then trainers are learning to subvert existing technologies to monitor student attention levels.

### **Making use of the available**

Interactive Body Language, a synchronous technology by Centra, is capable of indicating when a learner is confused and his or her learning speeds (fast or slow). Instead of prodding learners to answer frequent questions, this technology allows them to answer at will, making it less annoying and distracting. A major drawback of such technology, however, is that learners have to make a conscious effort to provide constant feedback. While providing feedback involves clicking a button, learners must know where the

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button is and what it does. More often than not learners fail to understand or use these controls, which delays feedback. As a result, trainers cannot gauge attention levels.

Most technologies find it difficult to capture natural classroom reactions; therefore, an alternative is to physically monitor students. At the MIT Media Lab, Roz Picard attached sensors to a learner's eyebrow muscles. These highly sensitive sensors could indicate surprise and confusion. However, there are many problems associated with the use of sensors.

- Learners are uncomfortable attaching anything to their bodies
- The possibility of learners playing or tampering with the sensors
- A slight delay in the feedback

### **The other ways out**

Another alternative is the use of a Web cam, but many learners find such monitoring highly invasive. The latest at Picard's lab is a monitor that measures attention levels by studying the shifting movements of a learner in his chair.

WebEx, a learning software company, has also entered the fray with a monitor that indicates attention levels by determining whether the learner has the course window in the foreground. However, just because the course window is in the foreground it does not accurately indicate learner attention. Some learners can be highly attentive even if they have an e-mail in the foreground.

Desktop sharing too can serve as an attention indicator. Here, the trainer has access to the learner's desktop and therefore can see what the learner is doing without being in physical touch with the learner. However, this indicator too is not as accurate as a smile or a frown (instant classroom indicators of learner attention).

Also, just because a learner is multi-tasking does not mean that he or she is inattentive. Studies show that some individuals listen better if their hands and eyes are fully occupied. Chris Schmandt, a MIT researcher, found that individuals could pick out information of interest to them from audio streams. This could be the reason that attention levels in classrooms peak when a lecture is prefaced by the statement, "This may be important for your examination."

### **Empowering the trainer**

It is important to monitor attention levels - what is equally important is letting learners know that their trainers can watch them. Visualize a classroom situation where a teacher suddenly calls out, "Joe, what is it that is so funny? Why don't you share it with the class?" While the student may feel embarrassed, such incidents motivate learners to raise their attention levels to meet trainer expectations. Online trainers can now simulate such situations using desktop sharing.

However, despite these advancements, the biggest drawback of online learning is that it cannot be analogous to the messages that body language can convey. Nothing in technology has as yet captured the instant teacher-student exchanges that occur through



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body language in a classroom. All trainer-learner communication in a virtual classroom still takes place through text or disembodied voices, both of which lack a personal touch.

### **Empowering the learner**

Current technology cannot make up for the lack of face-to-face interactions. However, organizations can compensate for the trainer's absence by empowering learners. Learners need to be provided the ability to monitor their own attention levels. Known as 'Biofeedback', this technology "helps people take more conscious control over their normally unconscious reactions." Ideal for online learners, the advent of cheaper, faster and simpler technologies allows organizations to provide their learners with Biofeedback sensors, allowing them to track their own attention levels.

While technology may not substitute the face-to-face contacts of a classroom, it is definitely less expensive, less complex and more importantly less invasive.