

“JUST RIGHT CHALLENGES”

THE SECRET TO EFFECTIVE TEACHING AND TRAINING

By Michael Doctoroff

Long before I founded Trainers Warehouse, I taught courses in college Physics. The format was much easier back then: we lectured. We told students what was important, assigned reading material, collected and inspected papers, passed out problems, and administered and graded exams.

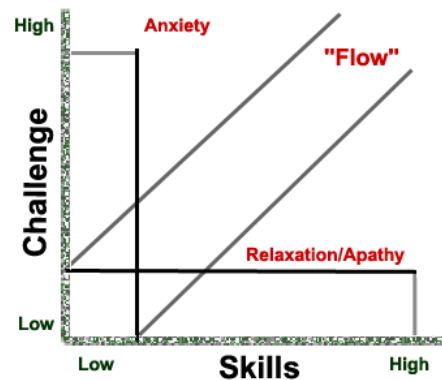
Today, as 21st century trainers, we do not have such simplistic teaching processes as the 60's college scene. Moreover, when we train adults, we have no grading, no pass-fail, and no mandatory attendance.

Despite the rising popularity of “active” or “participatory” learning, some educators continue to lecture, spending little effort to enhance the material and make learning more effective. David Sousa, brain researcher and author of *How the Brain Learns*, points out the futility of this out-dated process: “*Lecture continues to be the most prevalent teaching method in secondary and higher education despite evidence that it produces the lowest degree of retention for most learners.*” (David A. Sousa, *How the Brain Learns*, Corwin Press, Third edition, page 95).

In searching for an alternative to lecturing, the key is to offer learners “just right challenges” – challenges that are neither too hard, nor too easy, but effective means of reinforcing important content areas. Following are seven ways to incorporate “just right challenges” into your training, in order to improve the impact and effectiveness of learning.

THEORETIC BASIS

Mihaly Csikszentmihalyi proposes the theory of “Flow” (see diagram). “Flow” occurs when a challenge is perfectly matched with an individual’s skills. When an individual’s Challenge and Skills are in sync, that person is in a state of “flow.” Alternatively, when a challenge is too high and the skills are low, frustration occurs. If the challenge is too low for the skill level, boredom occurs.



“Flow” & Mihaly Csikszentmihalyi, *Austega Information Services*
David Farmer, 18 March 1999

When individuals do find themselves in a state of flow, because they are engaged in “just right challenges,” their brains are optimized for learning and retention—they are relaxed, happy, having fun, interested in working, creative, and unconcerned about the passage of time.

Let me share an example. Consider the current infatuation with Suduko, the well-known number game where you are challenged to complete filling in numbers into a partially filled grid such that rows and sub-squares only have one digit in the series 1-9.

Is it tedious to work to solve a puzzle or is it fun? People pick up the Suduko challenge and relax as they work out the details. If given the time, they may spend hours working at the details. The brilliance of the puzzle is that the various levels of difficulty make it possible for everyone to find a “just right challenge.”

The question remains, how can trainers offer learners just right challenges that are also related to their content?

JUST-RIGHT CHALLENGE TECHNIQUES

1. Challenge them to explain

Suppose that after you have been introduced to the group, you ask for a first slide. For purposes of illustration, suppose that the first slide is the “Flow” chart shown above. Your natural tendency might be to start to explain the chart. But wait, don’t explain it.

Encourage the students to do the explaining by asking them questions. Ask, for instance:

- What does this chart represent?
- Why is there boredom or frustration?
- How do you define challenge?
- How do you get to flow?
- What does flow represent?
- Why is “flow” good?

Don’t tell students things they can figure out by themselves. When they figure out these things, they will have met the just right challenge and the information will be more meaningful.

2. Challenge them to summarize new material

Instead of wrapping up the discussion with some concluding remarks, ask your students if they can write a description summarizing the discussion that just took place. Give them time to write and to confer with each other on the summation.

This is a review and period of reflection that has been shown to be critical in the long-term recollection of material. (Ruhl, Hughes and Schloss, Teacher Ed and Special Ed. 1987).

I once heard a lecture by Thiagi in which he asked a group to summarize a presentation but he carried it several steps further. He sequentially asked trainees to reduce their summary to a single sentence and then he asked them to draw a logo for the subject in order for them to recall the information later. All these are challenges that cement the information and make time seem to rush by with learning and enjoyment.

3. Challenge them to create mnemonics

Summarizing by the students is only one of a group of challenges that could be used to enhance retention.

With mnemonics you might ask your trainees to develop a word wherein each of the letters of the word represents one of the key words of the presentation that you have made.

By example, suppose you give them an inexpensive plastic figure with a “monster” face, and ask them to name it. Alternately, you might ask them to draw a monster or a battleship or bottle of whiskey or anything else and ask them to name it.

Again consider the flow diagram above and ask your students to develop a name for the monster that you have had them quickly sketch.

Suppose your key letters are:

F - for **F**un
S - for **S**kill
A - for **A**bility
C - for **C**hallenge
B - for **B**oredom
F - for **F**rustration
E - for **E**nergy

And they decide to name their special guy “B.S. CAFFE” and are then urged to write the name on their drawing. The challenges of selecting critical words, selecting key letters and then integrating them into a monster name will help them remember more.

4. Challenge them with games

Trainers use games for both presentation of material and for reviews, but they also provide the perfect opportunity to match challenge and skill and still maximize learning and fun.

The most popular games are those with a Jeopardy format. Jeopardy is an ideal game format because it provides many questions with degrees of difficulty.

Games can also be a better alternative to lecture for exposure to new material. Once again, to ensure that “flow” will happen, challenge the students to create the questions. Doing so demands organizing of material into categories, evaluating the difficulty of the questions to create their point value, and searching literature or notes for relevant questions.

Remember, the goal is to determine what classroom methods best accomplish finding the perfect balance of challenge to skill.

5. Challenge them to imagine

Role-play is a perfect embodiment of imagination being used to generate just right challenges.

When you ask a student to assume the role of another, you are asking the person to imagine how the other person thinks. The more they are involved with the other person's personality, the more they are learning with empathy for the other's role.

The problem with most role-play is that performance inhibitions arise that confuse the thinking and make the role play become a matter of social concern. You must avoid this tendency with the use of small groups, teams and positive feedback.

6. Challenge them to brainstorm

People love to brainstorm. I think it is because of the thinking that it requires and the skill that exists in knowing a subject well enough to contribute. Plus, there are no wrong answers, judgments and criticism are against the rules, and the crazy ideas are celebrated – undoubtedly, the very essence of a just right challenge.

In a learning setting, brainstorming can be used to generate lists, identify problems, consider holes in a new theory, devise rationales for applying new methods, identify helpful learning points, chapter headings, and more.

7. Challenge them to tell a story

Stories have a wonderful place in training. They relax listeners, command interest, and return people to their youthful instincts. Moreover, they stimulate your brain to associate a learning point with an emotional reaction, which is known to make it more memorable.

Certainly, as teachers and trainers, we ought to utilize story telling, calling upon the volumes of books written to help us find the right story to fit our various lessons. But transforming story telling into a just right challenge suggests that you ask students working in small groups to generate their own stories. Alternatively, larger groups can create an on-the-fly story, whereby the first

individual starts with the opening sentence, then each consecutive person adds on the next sentence until they get to “the end.”

Another technique is for the facilitator to provide the first half of the story—setting the stage and defining the area of the lesson—then challenging groups to come up with the ending.

Conclusion

No matter what challenge or technique you find that fits your comfort level, curriculum needs and content, the critical part is to develop challenges that are neither too hard, nor too easy. When you find those “just right challenges,” students will be self-motivated to jump in and learn.

With the advantage of both hindsight and research, we see that the active learning and just right challenges that we employ as teachers and trainers today greatly surpass my old-fashioned lecturing techniques of the 60s in terms of their effectiveness. As learner involvement increases and their enjoyment of the process increases, our employees and students are learning more and retaining more, and making us more effective in our roles.

ABOUT MICHAEL DOCTOROFF

Michael Doctoroff, Chairman and founder of Trainers Warehouse, oversees all operations, manufacturing, and product development. Doctoroff, was educated at Williams College and received an MBA degree from RIT. For the first 15 years of his career, he served as a practicing physicist, doing research and development. He has worked as a scientist, creator and manager at Bausch and Lomb, Balzers Corporation, Tokheim Corporation and his own consulting company. His humor (or lack thereof—according to his daughter) is hard-wired into his genes.