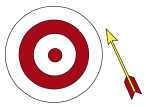
Tips, Tools, Techniques and Other Tantalizing Tidbits
By Harold D. Stolovitch

Becoming an effective instructional designer (ID) requires solid training in the skills needed to analyze, design, develop, evaluate and revise courses, programs and learning events or activities. As ID's, we practice and hone these skills with each project we undertake. However, as with any craft or profession, we also pick up tips, tools, techniques and other useful "stuff" from fellow seasoned, successful professionals. Often, we do the "picking-up" informally through observation, participation in professional get-togethers or from casual conversations. These gems, together with our training and practice, build our successes. From capable journeymen, we transform into talented master ID performers.

This article and two more which will follow in future issues offer you some of the things I've picked up or stumbled upon over the years as a practicing ID and teacher of instructional design. There are, of course, three objectives for this article series. (Would an ID dare to not state objectives?) You should come away from reading them able to:

1. Separate myth from research-based evidence on five commonly held beliefs about learning and performance.
2. Apply five tools to enhance your ID practice and decision-making.
3. Apply three powerful techniques that result in your learners' dramatic and rapid acquisition of new insights.

Let's begin with the first objective and a game called *Hit or Myth*. I often use this game activity to address commonly circulated beliefs about a given subject and challenge these via this game format. Here's how you play. Read each statement below and decide whether it is a hit – true – or myth – false. Then, read on to see how well you chose.

Statement	 Hit	 Myth
1. Because some learners are more visual and others more auditory, this is a key consideration in instructional design.	☐	☐
2. More enjoyable instructional activities result in greater learning achievement.	☐	☐
3. Media have a powerful impact on learning effectiveness.	☐	☐
4. Consulting learners about what they know or don't know is useful as, in general, they are pretty accurate judges of their own knowledge and performance capabilities.	☐	☐
5. If you want novice learners to learn how to solve problems, give them problem-solving practice right from the start rather than have them study worked out problems.	☐	☐

Now for the feedback on selections. Please read what the research says and the tips for practice that emerge.

Hit or Myth	Tips for Practice
1. Myth: Research has shown there to be differences in which senses individuals favor for attending to and processing information. However, more powerful than these differences is the overall effect of stimulus variation. (Bishka,2010; Snow, 1989; Tobias, 1985.) [Click here for complete references.]	• Vary the stimuli you include in your learning activities. • Do not be overly concerned about "learning styles." It's a shaky concept. • Engage several senses at one time, but ensure that they all reinforce one another. • Engage the learners in many activities that require lots of practice.
2. Myth: Correlations between learner enjoyment/satisfaction and learning success vary from -0.85 to +0.75. There is no stability in the findings. Overall, enjoyment and satisfaction do not seem to be critical variables	• Challenge your learners in meaningful ways. • Provide practice with feedback – both corrective and confirming. • Demonstrate benefits for learning and constantly reinforce these. • Build confidence through

Hit or Myth	Tips for Practice
for learning. Persistence and time on task appear to be more powerful. (Clark, 1980; Hartly, D. 2006; Remedios, Lieberman & Benton, 2000; Schnackerberg, Sullivan, Leader & Jones, 1998.) [Click here for complete references.]	graduated challenges and successes. • Manage the learning process through clear structure and direction.
3. Myth: 1913 – Prediction: demise of the classroom due to the invention of "moving pictures" – Thomas Edison 1940s-50s – Audiovisual boom 1960s – Educational television 1980s-90s – Computer-mediated learning 2000 – Web-mediated learning One of the most consistent findings in the research literature: all other things being equal, media has no significant impact on learning effectiveness (Clark, 1999.) [Click here for reference.]	• Don't get caught up in media-mania. Focus on design. • Make media "transparent." Bells and whistles distract. • Beware of "seductive elements." These decrease learning. • Use media and technology-based systems to improve learning access, efficiencies and message consistency.
4. Myth: A significant body of research demonstrates experimentally the poor "calibration" (correlation between confidence rating about one's specific skills and knowledge and actual performance) in judging ourselves. This extends to judgments about how much learners think they learned from instruction and how much they actually did learn (posttests). (Evans & Stanwyk, 1997; Glenberg, Sanocki, Epstein & Morris, 1987; Olson, 2000; Stone, 2000.) [Click here for complete references.]	• Take care lest you be overly swayed by what learners say they know and can do. • Verify by performance testing or performance data gathering. • Listen, but don't believe. Experts are no more expert about their knowledge and skills than are novices.

Hit or Myth	Tips for Practice
5. Myth: In initial learning of problem-solving, learner cognitive load is heavy, thus overloading working memory. Providing learners with worked-out problems and having them study similar new occurrences lightens learner cognitive load and increases problem-solving success (K im, Weitz, Heffeman. & Crack, 2009; RIngenberg & VanLehn 2006; Van Merrienboer, 1997.) [Click here for complete references.]	• Provide clear problem-solving models and have the learners study them. • Debrief with learners what they learn from worked-out examples. • Guide application to new problems and provide feedback. • Gradually increase problem-solving difficulty.

Please note that the game itself, *Hit or Myth*, is a neat and simple activity to involve learners in content that requires dispelling rumors, clarification of half-truths, elimination of nonsensical notions or burial of myth-beliefs. For us as ID's, the content of this specific use of the *Hit or Myth* format provides us with useful insights and tips for practice.

In the next edition of *HSA e-Xpress*, I'll share some tools I've gathered that can help you manage ID projects effectively. Stand by. Also, if you have any feedback to offer, contact me (hstolovitch@hsa-lps.com). I love connecting with fellow IDers. Please pass along any tips, tools, etc. you would like to share with colleagues. We'll make sure you receive full credit.