What was Your Best Learning Experience? Our Story About Using Stories to Solve Instructional Problems

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"Theory? What does this have to do with anything we're doing?" Sound familiar? Students may not always verbalize this, but they often think it, especially in courses where the emphasis is on the development of technical skills and the application of those skills to the building of products. Presenting theory in a way that is relevant and engaging can be challenging under these circumstances. This article describes how we addressed this challenge by involving students in an analysis of their "best learning experiences" stories, and then helped them apply their discoveries to the products they built.

In the field of instructional design and technology, learning and instructional theory inform teaching and instructional-design decisions (Ertmer & Newby, 1993; Reigeluth, 1983, 1987, 1999; Reigeluth & Carr-Chellman, 2009). Whether clearly articulated or not, effective educators and practitioners tap into their understanding of how people think, develop, and learn as a matter of course (Rando & Menges, 1991; Wray, Lowenthal, Bates, & Stevens, 2008). In addition, being able to articulate rationales for design decisions is critical when working with parents and colleagues in K-12 and postsecondary settings and with clients and team members in corporate, government, and military settings. Therefore, in order to support students' enculturation into the field (see Dicks & Ives, 2008; Schwier, Campbell, & Kenny, 2007; Wilson & Schwier, 2009), it is necessary to prepare them not only in the "how to" use of tools and techniques, but to understand why and when to use tools and techniques given the learning audience and specific learning goals and objectives (as suggested in Malamed, 2013). To this end, even in the most technically-oriented production-based courses, some attention to relevant theory is warranted.

Unfortunately, students do not always see the value of learning activities that focus on theory, and are instead excited by the tools and technologies and anxious to get busy making products. Presenting theory in a way that is directly tied to the students' pique of engagement, which is making products with tools and technologies, can be formidable. This is one of the instructional challenges we faced in our introductory eLearning Design and Implementation courses, and in this article we describe the strategy we used to make the students' work with theory as relevant as their work with tools and techniques.

Background of Our Instructional Problem

We teach courses in the eLearning Design and Implementation MA program at the University of Colorado Denver. During the past ten years, eLearning has grown across all sectors (Allen & Seaman, 2006, 2010), and our MA program's popularity mirrors this growth. Because of eLearning's foothold in all sectors, our student body is professionally diverse; we have students from all over the USA and world, and from K-12, postsecondary, corporate, military, and government settings. Although some students come with formal educational experiences in the field of education (e.g., K-12 teachers), most of the students have very little background in learning and instructional theory; instead, they tend to have strong subject-matter expertise in the area(s) for which they wish to design and develop eLearning products (e.g., a civil engineer who is now tasked by her organization with designing online training opportunities for emerging trends in pipeline construction). We value our diverse student body and the many ways that the diversity of perspectives and backgrounds serves the overall learning experience. But we have had to address a fundamental question: How do we teach students relevant learning and instructional theory in a way that is engaging and connected to their professional goals and objectives so they can design informed, effective instruction [learning opportunities for learners]; be able to articulate their design reasoning to others; and be literate members of the associated professional communities of practice?

We teach in an online instructional design and technology program that focuses on developing eLearning professionals. Given the demands of the profession (see Lowenthal, Wilson, & Dunlap, 2010; Sugar, Hoard, Brown, & Daniels, 2012; Wakefield, Warren, & Mills, 2012), our program is highly technical in nature, and production oriented. Over the years, though, we have found that all too often our students are so focused on acquiring the technical skills that they fail to spend enough time considering what is involved in designing pedagogically sound instruction that engages students and helps them achieve learning objectives. This skewed attention leads students to

design instruction that demonstrates technical skills but fails to achieve instructional goals.

When initially faced with this problem, our first inclination was to have our students either take an additional course or two in learning theory and instructional design (thus adding more credits to their program) or redesign the curriculum so that we can create a course focused simply on instructional design and learning theory. However, our experience designing instruction at the post-secondary level coupled with the literature led us to the conclusion that simply adding more courses might not be the answer. Instead, we opted to find a way to integrate more basic learning theory and instructional design concepts into our technical coursework (in the context of developing technical skills and building instructional products).

Our Instructional Solution: Student Stories

We addressed our instructional problem by leveraging our students' prior experiences. At the start of the program, we began asking our students to collaboratively complete an activity designed to help them enhance their consideration of instructional and teaching strategies in the design of online courses and other learning opportunities. In this activity, students share individual stories recounting their experiences of engaging instruction (i.e., their "best learning experience"). Then students work together in small groups of four to five to mine their collective stories for common themes and attributes that seem to be at the heart of their engaging learning experiences. Next, all groups share their story

analysis and findings, and as a large group analyze their lists of common themes and attributes in order to compile a master list of instructional strategies that support student engagement. Finally, students use the master list to develop an assessment tool (that we used as well) for evaluating their own teaching and instructional practice and eLearning designs (see Figure 1 for the exact language we use for this activity).

We start the program this way because we want students to grapple with certain fundamental questions before learning to use the tools and technologies of online teaching and learning:

- What engages students?
- What makes a learning experience memorable?
- How do certain types of learning experiences help people learn?

Their responses—which they arrive at through sharing their own learning stories and analyzing the collective stories of their peers—provide a foundation for their study and application of learning and instructional design theories. Besides providing insight into the instructional strategies that lead to engaging learning experiences, students' analysis of their stories helps them study new learning and instructional theories because they are able to tie their new learning to prior experience and knowledge. In addition, because we use the stories as a foundational framework, students have some buy-in for exploring learning and instructional theories, and embracing the value and relevance of those theories in relation to their

Figure 1
Exact Language of the Best Learning Experience Activity

PART 1 – In Groups of 4-5 Students

1. Describe your best learning experience.
Think about your most valuable, effective, and/or engaging learning experience and in 250-400 words share your learning story. Don't editorialize or try to explain why you think it was your best learning experience, just tell the story.

2. Within your group, analyze each person's "Best Learning Experience" story.
Take time to discover why each particular learning experience was so special. This may require you to ask probing questions of each person. The goal of this analysis is to uncover a set of underlying instructional themes and attributes working behind the scenes of these learning experiences.

3. As a group, compile themes and attributes into a list.
Your list will contribute to providing us with a foundation for the rest of the work we do in this course and beyond. When you design learning experiences for others, it is important to consider what you instructionally value as a learner and educator. Your values—based on your experience in the world and on what you know about how people think and learn (from studying the literature)—should be reflected in your selection of instructional strategies. For example, if you believe that people learn best in collaborative settings, then your instructional design should include opportunities for collaborative learning. See if your values and beliefs are actually reflected in your group's collective stories as you analyze them for common themes and attributes.

PART 2 – As an Entire Class

Using the story analyses that you did last week in your small groups, work together as a large group to derive a master list of common themes, attributes, and instructional strategies based on your small group lists. Once the master list is completed and vetted, we will convert the list to an assessment tool we will use to assess our instructional design projects.

professional practice. Finally, after sharing and analyzing their stories, students become interested in creating learning opportunities for others that measure up to their best learning experiences, and are therefore more inclined to try less conventional approaches to instruction and instructional delivery.

The strength of this activity begins and ends with students' stories. As Zull (2002) points out, "recalling and creating stories are key parts of learning. We remember by connecting things with our stories, we create by connecting our stories together in unique and memorable ways" (Zull, 2002, p. 228). Stories help us make sense or meaning out of experience, with the story form serving as a powerful sense-making tool for educators (Ackerman, Maslin-Ostrowski, & Christensen, 1996), in part because they help elicit prior knowledge; stories enable students to access prior knowledge and to make connections "to larger themes and patterns. Using stories affirms the value of prior student experiences both emotionally and cognitively, help[ing] students make their own meaning" (Frederick, 2004-2005, p. 1). Related, asking students to share their stories gives them a voice, honoring what they have to contribute to the teaching-learning relationship and building their confidence and sense of empowerment (Burk, 2000; Davis, 2004; Frederick, 2004-2005). We ask students to engage in formal storytelling because we want them to move beyond the casual exchange of experience and instead participate in critical dialogue. Going beyond simply sharing stories, it is important to

> encourage students to look at their stories from different perspectives . . . [and] ask other members of the class to give their interpretations of the story or try to get the storyteller to scrutinize the assumptions underlying the framing of the story and the tellers' own actions in it. (Brookfield & Preskill, 1999, p. 76-77)

This activity has led to interesting, unexpected results. The content of our students' stories—although from different educational contexts, grade levels, and subjects—are surprisingly similar; as students comb through their collective stories in search of commonalities, they uniformly discover that their best learning experiences consist of the same five building blocks, and that those building blocks define student engagement.

Examples of Best Learning Experiences and the Building Blocks of Engagement

After using this activity for a couple of semesters, we began to notice that students' emerging themes were essentially the same even though their stories were often very different; see Figure 2 for examples of best learning experience stories shared by three of our students.

Through analysis of the stories (like the three in Figure 2), the students then create a list that consistently includes the following five building blocks, what we refer to as the Common Instructional Values:

1. Learner-centered: self-assessment, reflection, personalization, relevant
2. Social: collaboration, team-work, storytelling
3. Contextual: cases, immersion, real world, situated, authentic
4. Active: problem-based, hands-on, exploratory, experiential
5. Supportive: safe, resource rich, fair, timely feedback, coaching, humor used appropriately

Figure 3 is an example of a Common Instructional Values document created by students. The Common Instructional Values document that each group produces is then used throughout the rest of the course and program as a checklist and assessment tool during self-assessments, peer reviews, and faculty assessment. In the design documentation that students produce with each instructional product they create, the Common Instructional Values document is used to help them organize and articulate their design decisions and related application of learning and instructional design theory (as cited from course readings).

Implications and Concluding Thoughts

Through their sharing and analysis, our students discovered that an engaging learning experience is learner-centered, contextual, active, social, and supportive. However, students have also determined that simply attending to those common themes and attributes may not lead to an engaging learning experience. They realized that their best learning experiences are comprised of happenings/occurrences that reflect both an episodic uniqueness and a structured order, much like a story itself. There is an ineffable qualitative character that is enjoyed, providing the basis for experienced value and aesthetic appreciation, as noted in the sample stories.

This work contributes to our understanding of student engagement by describing students' discovery of common themes and attributes that, when applied in unison, have the potential to lead to engaging learning experiences. Collectively, the stories enable a deeper understanding and appreciation of engaging teaching and instructional practices, and students' new-found awareness of best learning experience strategies may empower them to confidently apply those strategies to their own subsequent practice.

Figure 2
Three Examples of Student Stories of Their Best Learning Experiences

Story A

From "Schindler's List" to the smokestacks of Auschwitz, "A Beautiful Life" to documentary footage of thousands upon thousands of soldiers shouting "Heil, Hitler" in unison: even at 16, my Modern History classmates and I were familiar with images of Hitler's Third Reich and the Holocaust. But the human face on the genocide was as remote from us as if it were another planet. How could ordinary people like us have perpetuated this horror? How could they have betrayed their neighbors and friends, sending them to concentration camps and almost certain death? Why were there not more stories like Anne Frank's, of people who defied the regime to help others?

In the third lesson of our unit on Nazi Germany my teacher, Ms. Dare, made it all relevant to us without a single word of explanation. She brought in a simple game with tokens and moral questions. To stay "alive" in the game required tokens, and the "winner" was the one with the most tokens at the end. Certain people were designated "White" and others were "Black" – correlating to "ordinary" Germans, and Jews. Each decision required juxtaposing your own personal survival against that of your friends, and it was eye-opening how quickly it became real. Even in a game, conformity and survival were as crucial to us as in real life – the courage we were hoping others would display was laid firmly at our feet, and we were often sadly lacking.

A slightly shell-shocked group of 16-year-olds filed out of the classroom in silence, and never again was the question asked: "How could they let it happen?"

Story B

I had spent many weeks reading books and taking ground school classes that discussed lift, drag, thrust and gravity; how the wing surfaces control the movement of the plane; weather; fuel capacities; maps; landing patterns and regulations; and on and on and on. But now it was time to take my first flight. Mel, my instructor, walked me around the airplane, checking the fuel levels and the oil, looking inside the pitot tube for insects, checking the radio and other electronics to be sure that the plane was ready for flight. I prepared to climb into the passenger seat, but Mel said, "no, it's your plane now, you have to fly it."

After buckling ourselves in, I started the engine and took the controls in my hands. Suddenly, everything I had learned seemed to disappear from my head! But as we started the takeoff roll, I realized that I knew what to do next! I watched for the right ground speed and pulled back on the wheel. We were up! We were airborne!

All of those pieces that I worked so hard to memorize now began to make sense. I could feel the plane sway as I pushed on the pedals that worked the rudder. The plane began to bank as I turned the wheel. Push the wheel away and the plane started down, pull back and we went up.

Story C

When I think about my most memorable learning experience, I have to go back some 20 odd years to Tarrant County Junior College. I had to take some general education courses, one of which was American History. I wasn't really looking forward to this class despite the fact that I am a history buff. I love reading historical books, watching the History Channel, and discussing history. But I absolutely hate take the classes. I suppose it's because of my experiences in middle and high school.

Back then, history was just a long list of names, places, and dates. It seemed that we spent so much time memorizing the same that the significance of those events was lost. Coupled with that is my incessant need to ask "why" and "how". I've never been much of one to accept things "because someone told me so." I need to have proof, a reason to attach significance to a fact, and understanding on why I need to know or apply information. As I went to Catholic school throughout my K-12 years you can imagine that my "attitude" (as it was so affectionately called by the priests) got me into trouble sometimes—especially in theology class

Anyway, here I was at the junior college taking yet another history course. I was fully prepared to be bombarded with facts and expected to soak them up like a sponge. I was not enthused. I couldn't have been more wrong. The first day of class, our instructor said, "All right, everyone loves history class, right?" You could have heard the collective groan. He then said, "I want you to forget everything you experienced before and start looking at history in a new way. I don't care if you know the exact date of the events we're going discuss. I'm not interested in whether or not you remember all the players or even the city in which these things happened. As long as you know the correct time frame, location, and key players you are in good shape." I couldn't believe what I was hearing. All class discussions, papers, and projects centered on why an event came around and how it impacted or brought about subsequent events. We discussed how those events affected us today. For the first time the Stamp Act, Monroe Doctrine, Missouri Compromise, Tammany Hall scandals, and Sherman Antitrust Act had real meaning and significance.

The key to the whole thing was our instructor having us think about the events of American History rather than just know them. He talked with us rather than at us. That class not only made taking a history course fun and enjoyable, it also helped shape my future (though I didn't know I would be doing it one day) teaching style. When I first became an instructor back in 1989 and was going through instructor training, I thought back to all the teachers and instructors that I had over the years. When my reflection on each one of these men and women had ended, I realized that I wanted to teach just like Mr. Cowin.

References

Ackerman, R., Maslin-Ostrowski, P., & Christensen, C. (1996, March). Case stories: Telling tales about school. *Educational Leadership, 53*(6), 21-23. Retrieved from http://www.ascd.org/publications/educational-leadership/mar96/vol53/num06/Case-Stories@-Telling-Tales-About-School.aspx

Allen, I. E., & Seaman, J. (2006). *Making the grade: Online education in the United States, 2006.* Needham, MA: Sloan-C.

Allen, I. E., & Seaman, J. (2010). *Learning on demand: Online education in the United States, 2009.* Needham, MA: Sloan-C.

Brookfield, S. D., & Preskill, S. (1999). *Discussion as a way of teaching: Tools and techniques for*

Figure 3
An Example of a Common Instructional Values Document Created by Our Students

1. Learner-centered instructional values
Key words & phrases from us ~

Learning activities: are relevant, meaningful, personal, and motivating; require learners to be self-directed, self-regulating, autonomous, intentional, and metacognitively aware; and develop skills and disposition needed for lifelong learning.

Educators: facilitate and guide learning; support students in taking ownership, responsibility, and control over their learning; help students with prior knowledge activation, goal setting, action planning, and reflection; and are culturally-responsive, honoring diversity.

Learning environments include: flexible physical structures, access to a variety of resources, and tools and rubrics that encourage self-assessment and process/goal-achievement monitoring.

2. Social instructional values
Key words & phrases from us ~

Learning activities involve: collaboration, teamwork, group work, cooperation, discourse, discussion, negotiation, debate, conversation, communication, sharing, storytelling, working together, reciprocal teaching, peer teaching/mentoring/coaching, peer review, and co-creation.

Educators: establish teacher and social presence, participate, facilitate discussions and community building, provide coaching and mentoring, and cultivate the social context.

Learning environments include: space for small group work, communication and collaboration tools, rubrics that encourage balanced voices and contributions, and access to external communities.

3. Contextual instructional values
Key words & phrases from us ~

Learning activities are: authentic, real world, challenging, relevant, context-specific, complex, ill-structured, project-based, problem-based, enculturation, situated, and anchored.

Educators are: focused on professional preparation and identity; and attentive to the development of students' confidence and self-efficacy to participate in the professional community of practice.

Learning environments include: simulations, immersion, problems, projects, case studies, service, communities of practice, enculturation.

4. Active instructional values
Key words & phrases from us ~

Learning activities: are hands-on, generative, dynamic, exploratory, experiential, engaging; involve students in inquiry, discovery, problem solving, decision making, and expression; and culminate in the creation, construction, and building of products, or a performance.

Educators: provide opportunities for questioning, knowledge building, practice, and experimentation; conduct demonstrations; model performance; and engage in think-alouds.

Learning environments include: materials, labs, simulations, case studies, role-playing, and projects.

5. Supportive instructional values
Key words & phrases from us ~

Learning activities are: culturally responsive, differentiated, fun, entertaining, and scaffolded.

Educators: are humanistic, caring, non-judgmental, competent, credible, well-organized, passionate, inspirational, enthusiastic, and attentive; minimize frustration; provide clear and complete directions/information, constructive feedback, coaching, and mentoring; and honor diversity and creativity.

Learning environments are: safe, non-threatening, celebratory, accommodating, flexible, equitable, resource rich, and multimodal.

democratic classrooms. San Francisco, CA: Jossey-Bass.

Burk, N. M. (2000). *Empowering at-risk students: Storytelling as a pedagogical tool*. Paper presented at the annual meeting of the National Communication Association, Seattle, WA.

Davis, A. (2004). Co-authoring identity: Digital storytelling in an urban middle school. *THEN*. Retrieved from http://thenjournal.org/feature/61/

Dicks, D., & Ives, C. (2008). Instructional designers at work: A study of how designers design. *Canadian Journal of Learning and Technology, 34*(2). Retrieved from

http://www.cjlt.ca/index.php/cjlt/article/viewArticle/495/226

Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 6*(4), 50-72.

Frederick, P. (2004-2005). The power of student stories: Connections that enhance learning. *Teaching Excellence, 16*(2), 1-2.

Lowenthal, P. R., Wilson, B. G., & Dunlap, J. C. (2010, October). *An analysis of what instructional designers need to know and be able to do to get a*

job. Paper presented at the 2010 AECT International Convention, Anaheim, CA.

Malamed, C. (2013). *10 qualities of the ideal instructional designer*. Retrieved from http://theelearningcoach.com/elearning_design/10-qualities-of-the-ideal-instructional-designer/

Rando, W. C., & Menges, R. J. (1991). How practice is shaped by personal theories. *New Directions for Teaching and Learning*, *45*, 7-14. doi:10.1002/tl.37219914504

Reigeluth, C. M. (Ed.). (1983). *Instructional-design theories and models: An overview of their current status*. Hillsdale, NJ: Lawrence Erlbaum.

Reigeluth, C. M. (Ed.). (1987). *Instructional theories in action: Lessons illustrating selected theories and models*. Hillsdale, NJ: Lawrence Erlbaum.

Reigeluth, C. M. (Ed.). (1999). *Instructional-design theories and models: A new paradigm of instructional theory* (Vol. 2). Mahwah, NJ: Lawrence Erlbaum.

Reigeluth, C. M., & Carr-Chellman, A. A. (Eds.). (2009). *Instructional-design theories and models: Building a common knowledge base*. New York, NY: Routledge.

Schwier, R. A., Campbell, K., & Kenny, R. F. (2007). Instructional designers' perceptions of their agency: Tales of change and community. In M. Keppell (Ed.), *Instructional design: Case studies in communities of practice* (pp. 1-18). Hershey, PA: IGI Global.

Sugar, W., Hoard, B., Brown, A., & Daniels, L. (2012). Identifying multimedia production competencies and skills of instructional design and technology professionals: An analysis of recent job postings. *Journal of Educational Technology Systems, 40*(3), 227-249.

Wakefield, J., Warren, S., & Mills, L. (2012). Traits, skills, and competencies aligned with workplace demands: What today's instructional designers need to master. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 3126-3132). Chesapeake, VA: AACE. Retrieved from http://www.editlib.org/p/40070

Wilson, J. R., & Schwier, R. A. (2009). Authenticity in the process of learning about instructional design. *Canadian Journal of Learning and Technology, 35*(2). Retrieved from http://www.cjlt.ca/index.php/cjlt/article/viewArticle/520/253

Wray, M., Lowenthal, P. R., Bates, B., & Stevens, E. (2008). Investigating perceptions of teaching online and F2F. *Academic Exchange Quarterly, 12*(4), 243-248.

Zull, J. E. (2002). *The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning*. Sterling, VA: Stylus.

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