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Educational and Environmental Support for Novice E-Learning Developers

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The e-learning marketplace is evolving. Many organizations use rapid e-learning development tools today, and instructional designers often need to upgrade their marketable skill-sets as applied to e-learning. We gathered survey and interview data from academic and corporate samples of instructional designers and e-learning developers to investigate which features of rapid e-learning development tools they value and why. Results suggest that formal education and organizational support are needed to help them become competent and marketable e-learning practitioners.

A WIDE VARIETY of E-Learning development tools available on the current market can be separated into two groups: (1) those that require computer software coding skills and (2) the rapid e-learning development tools (REDTs) that allow users to point-and-click their way to producing e-learning. Each tool provides developers with different features and output formats. Ideally, tool selection for a project would target the learners and their performance needs; however, it is often based on existing resources or cost along with the developer's skills. With existing content, REDTs support shorter project timelines and smaller budgets (Rosen, 2009). In 2011, Bersin & Associates reported that of the organizations delivering training online, 74% use rapid e-learning tools (Mallon, 2011). Unsurprisingly, novice e-learning developers most commonly use REDTs (Giacumo & Conley, 2015).

E-LEARNING DESIGNER/DEVELOPER COMPETENCIES

E-learning design that leads to human performance results valued by organizations requires a solid foundation in instructional design; thus, instructional designers often

add a set of e-learning–related competencies to take on the role as e-learning designers or developers. Ritzhaupt and Martin (2014) define competency as "measurable or observable knowledge, skills, abilities, attitudes, and behaviors critical to successful job performance" (p. 15). Most instructional design competency frameworks are based on job postings for educational technologists, training specialists, and performance improvement practitioners (ATD, 2014; Earle & Persichitte, 2005; Klein & Richey, 2005; Lowenthal, Wilson, & Dunlap, 2010; Sugar, Hoard, Brown, & Daniels, 2012). However, Ritzhaupt and Martin (2014) included job postings and input from professionals working in the field as multimedia instructional designers and e-learning developers in early childhood through university, business and industry, government, and military contexts in their multimedia instructional design competency framework.

A set of existing rapid e-learning design and development (REDD) competencies relevant to the study that we describe in the following section are presented in Table 1. Adapted from Ritzhaupt and Martin (2014), this REDD competency framework is organized by knowledge, skills, and abilities. The knowledge domain refers to

TABLE 1	COMPETENCIES VALUED BY EMPLOYERS OF REDD		
KNOWLEDGE	**SKILLS**	**ABILITIES**	
• Educational authoring and utility software • Graphics, web, audio, and video software • Theories and methods of instruction • Office production software • Accessibility and copyrights	• Multimedia production skills • Soft skills • Managerial and technical skills • Supporting skills	• Work in a team-oriented environment • Conduct an instructional design process • Teaching, manage several projects at once, and prioritization • Work with technology and assessment	

Competency framework adapted from Ritzhaupt and Martin (2014).

information of a factual or procedural nature. The skills domain refers to manual, verbal, or mental manipulation of things (Ritzhaupt, Martin, & Daniels, 2010). The abilities domain refers to performance of an activity that is observable (Ritzhaupt, Martin, & Daniels, 2010). As mentioned previously, programming and scripting languages are not required for REDD. Course management and computer hardware or networking are increasingly handled by information-technology and administrative personnel. Therefore, we exclude factors related to those areas in the adapted competency framework.

LEARNING TO USE REDTs IS A PRIORITY

As novice e-learning developers begin to learn to use REDTs, they do benefit from instruction, practice performing, and feedback on many of the competencies noted in Table 1. Knowledge of authoring tools, theories and methods of instruction, e-learning [multimedia] production skills, and the ability to work with technology and build assessments, accessibility, and copyrights are areas where prior training and education are most useful for ensuring success in an entry-level position. Negotiating, communication, managing projects and time, organization, visual design, storyboarding, typing, editing, proofing, and troubleshooting are also important competencies, which can be practiced through applied REDD project work.

Giacumo and Conley (2015) describe a current and ongoing demand for training and education by novice instructional designers working in corporate contexts. In the past, a debate waged as to whether or not universities should teach students how to use REDTs as well as foundational theories, models, and principles or to focus solely on the theories and instructional-design practices. Today, there are at least 13 graduate programs granting certificates or master's degrees in the United States geared towards corporate training and workplace learning that offer at least one multimedia design and e-learning development course, which includes formal instruction on how to *use* REDTs and *design* e-learning content.

Given the rise of free online courses and tutorials, the need to support formal education and training in multimedia instructional design and REDTs is often questioned by employers. However, according to Allen (2016), many people believe in the false notion that motivated individuals will invest their own time in learning what they need in order to perform their jobs informally and the others should leave the organization. In other fields, researchers suggest that learners should be exposed to formal instruction on software tools (Bhavnani, Peck, & Reif, 2008). Thus, the idea that instructional designers may be best supported with formal instruction and training on learning theory and design practices as well as common software tools is likely valid. Therefore, investigation into the training and education of novices should be ongoing to match changes in REDTs and design practices. This information would inform how limited resources may be better allocated and would indicate how to focus formal education or training.

PURPOSE OF THE STUDY

To better understand the impact of instructional designers and e-learning developers' access to formal education on using REDTs, we conducted two case studies—one in an academic setting and another one in a corporate setting. During our case studies, we sought to answer the following questions:

- When novice e-learning developers are trained to use new REDTs in a formal educational setting, what do they value and why?

- In a corporate setting, what organizational support do instructional designers and e-learning developers have for their e-learning–related job responsibilities? How do they choose REDTs, what do they value, and why?

We gathered data from academic and corporate participants by using a survey we developed called "A User Value Analysis Questionnaire" (see Appendix A). We also conducted follow-up interviews with a small group of the

TABLE 2	ACADEMIC SAMPLE'S JOB RESPONSIBILITIES	
NO. OF YEARS OF EXPERIENCE / JOB ROLE	INSTRUCTIONAL DESIGNER	E-LEARNING DEVELOPER
Never	10 (17.9%)	21 (37.5%)
For a year or less	7 (12.5%)	11 (19.6%)
For two years	10 (17.9%)	12 (21.4%)
For five years	7 (12.5%)	6 (10.7%)
For more than five years	22 (39.3%)	6 (10.7%)
Total	56 (100.0%)	56 (100.0%)

survey participants. We analyzed the survey and interview data within each sample group and reflected on the results.

CASE STUDY I: NOVICE E-LEARNING DEVELOPERS' VALUE PERCEPTIONS
Academic Sample and Procedure

The academic sample consisted of a group of instructional designers or e-learning developers who enrolled in a graduate-level REDD class at a mid-size university in the northwestern region of the United States between spring of 2014 and summer of 2017. All participants were seeking either a master's degree or a graduate-level certificate. The e-learning class was offered seven times during that period, with 12 to 15 students in class each time. Among the total of 92 students who enrolled during the seven semesters, 56 students (60.87%) voluntarily submitted the survey and five students participated in a follow-up interview.

The class was a 10-week online class, during which students completed four small (5- to 10-minute seat-time) e-learning projects by using Adobe Captivate and Articulate Storyline. Students were assigned to develop different types of e-learning products—declarative, procedural, and situated (Chyung, 2007). Students learned both technical skills on how to use the REDTs and e-learning and design principles and guidelines (see Clark, 2002; Mayer, 2003; Nguyen & Clark, 2005; Shank, 2011).

The user value analysis survey was an anonymous online survey, containing 20 items that measure:

- Users' demographic information and their perceptions about the overall quality of the REDD course.

- Their preferences for specific components of two REDTs.
- Their perceptions as to how well those components support the instructional-design strategies that they want to incorporate in their e-learning products.

The average age of the survey respondents was 40 (ranging between 23 and 62). Most respondents held full-time job titles such as instructional designer, content developer, training manager, or e-learning developer. in various industries. A majority (82%) of the respondents were involved in instructional design as part of their job responsibilities, and about two-thirds of them were involved in e-learning development as part of their job responsibilities (see Table 2).

The respondents indicated that it was very important to learn REDD skills (mean = 4.63 on a five-point scale when 1 is not important at all and 5 is very important). The frequently stated reasons for acquiring REDD skills were for their career development and to become more marketable in their future job search.

The respondents rated their current REDD skills on a five-point scale (novice, advanced beginner, competent, proficient, and expert). More than one-half of the respondents characterized themselves as novices or advanced beginners in terms of their current REDD skills (28.6% and 30.4%, respectively) (see Table 3).

About two-thirds of the respondents had never used Captivate or Storyline before they took the class (63.6% and 67.3%, respectively). About 14.5% and 10.9% of them had used Captivate and Storyline for less than six months, respectively (see Table 4). In this article, we will refer to them as *novice REDT users*.

TABLE 3	ACADEMIC SAMPLE'S CURRENT E-LEARNING SKILLS					
E-LEARNING SKILLS / **NO. OF YEARS OF E-LEARNING JOB**	NOVICE	ADVANCED BEGINNER	COMPETENT	PROFICIENT	EXPERT	TOTAL
Never	11	7	3	0	0	21 (37.5%)
For a year or less	4	5	2	0	0	11 (19.6%)
For two years	1	2	5	3	1	12 (21.4%)
For five years	0	2	3	1	0	6 (10.7%)
For more than five years	0	1	0	4	1	6 (10.7%)
Total	16 (28.6%)	17 (30.4%)	13 (23.2%)	8 (14.3%)	2 (3.6%)	56 (100.0%)

TABLE 4	ACADEMIC SAMPLE'S EXPERIENCE IN USING CAPTIVATE (CV) AND STORYLINE (SL)											
E-LEARNING SKILLS / **REDT USAGE**	NOVICE		ADVANCED BEGINNER		COMPETENT		PROFICIENT		EXPERT		TOTAL	
	CV	SL	CV	SL	CV	SL	CV	SL	CV	SL	CV	SL
Never	14	14	11	14	6	6	3	2	1	1	35 (63.6%)	37 (67.3%)
For six months or less	2	2	3	2	3	2	0	0	0	0	8* (14.5%)	6 (10.9%)
For a year	0	0	2	0	0	3	1	1	0	0	3 (5.5%)	4 (7.3%)
For two years	0	0	0	1	1	0	1	3	0	1	2 (3.6%)	5 (9.1%)
For more than two years	0	0	0	0	3	2	3	2	1	0	7 (12.7%)	4 (7.3%)

*A missing data

Novice E-Learning Developers' Preferences

Findings from the survey

Overall, the academic sample of novice REDT users who participated in the study rated Storyline more favorably than Captivate. Paired samples t-tests on the mean differences showed that they rated aspects of Storyline significantly higher than those of Captivate (see Table 5). The results are similar to the findings of the preliminary data obtained between spring of 2014 and summer of 2015 (n = 31) (Chyung, Conley, Gibson, & McWatters, 2015).

This sample of novice REDT users identified specific features preferences for Captivate and Storyline:

- Captivate: text-to-speech, closed captioning, and software simulation
- Storyline: layers, triggers, characters, and branching view

They were asked to think about how they would perform 10 e-learning-development tasks and to estimate whether they would do it better with Captivate or Storyline. Their assessments are summarized in Table 6. After excluding the *I don't know* responses, we were able to see a pattern of preference between the two tools. Overall, the respondents perceived that:

TABLE 5	ACADEMIC SAMPLE'S RATINGS ON CAPTIVATE AND STORYLINE						
CRITERIA	CAPTIVATE		STORYLINE		*t*	*df*	P (TWO-TAILED)
	Mean	SD	Mean	SD			
1. How quickly you can learn to use it	3.36	1.11	4.16	.93	−4.96	55	.000
2. How user-friendly the interface is	3.34	.97	4.30	.78	−6.31	55	.000
3. How quickly you can develop a product with it	3.45	.93	4.07	.91	−4.00	55	.000
4. How useful the menu items and other features are	3.60	.91	4.16	.76	−3.53	54	.001
5. How well it helps you incorporate your instructional design strategies	3.68	.83	4.05	.77	−3.24	55	.002
6. How the final products look	3.86	.96	4.25	.81	−2.83	55	.006

TABLE 6	ACADEMIC SAMPLE'S PREFERENCE RATINGS				
	CAPTIVATE IS BETTER	STORYLINE IS BETTER	NO DIFFERENCE	I DON'T KNOW	TOTAL
1. Adding closed captions (related to the redundancy principle and to comply with Section 508)	32 (59.26%)	5 (9.25%)	7 (12.96%)	10 (18.52%)	54 (100%)
2. Adding audio narration to slides (for the modality principle)	32 (59.26%)	8 (14.81%)	10 (18.52%)	4 (7.41%)	54 (100%)
3. Developing simulated software training products (related to the multimedia principle)	25 (46.30%	11 (20.37%)	6 (11.11%)	13 (24.07%)	55 (100%)
4. Adding text next to graphics during simulated software training (related to the contiguity principle)	16 (29.63%)	12 (22.22%)	15 (27.78%)	12 (22.22%)	55 (100%)
5. Aligning time sequence of objects (text, images, buttons, etc.) using the timeline	16 (29.63%)	20 (37.03%)	18 (33.33%)	1 (1.85%)	55 (100%)
6. Formatting text (e.g., changing font type, size, color, line spacing, etc.)	12 (22.22%)	20 (37.03%)	20 (37.03%)	3 (5.55%)	55 (100%)
7. Developing slides that do not look like PowerPoint slides	10 (18.52%)	16 (29.63%)	26 (48.14%)	3 (5.55%)	55 (100%)
8. Adding images to slides (related to the multimedia principle)	7 (12.96%)	16 (29.63%)	29 (53.70%)	3 (5.55%)	55 (100%)
9. Publishing e-learning products	2 (3.70%)	12 (22.22%)	33 (61.11%)	8 (14.81%)	55 (100%)
10. Adding characters to slides (related to the personalization principle)	8 (14.81%)	34 (62.96%)	12 (22.22%)	1 (1.85%)	55 (100%)

- Captivate was better than Storyline for adding closed captions, adding audio narration to slides, and developing simulated software training products.
- Storyline was better than Captivate for formatting text and adding images and characters to slides.
- Captive and Storyline worked similarly when adding text next to graphics during simulated software training products, aligning the time sequence of objects using the timeline, developing slides that do not look like PowerPoint slides, and publishing e-learning products.

The novice REDT users described that they felt motivated to learn to use Captivate and Storyline because the programs allow them to develop fairly interactive and media-rich e-learning products. After completing a semester-long formal education focused on using both Captivate and Storyline, about two-thirds of the novice e-learning developers (61%) said they would prefer using Storyline, and the most common reason for their decision was its user friendliness. The remaining one-third of them who said they would prefer using Captivate indicated the following reasons for selecting Captivate: its easy-to-use feature for developing simulated software training products, its unique features such as text-to-speech, and its compatibility with both Windows and Mac systems.

Findings from the interviews

Five participants volunteered for a follow-up interview where they expressed their current e-learning development skills as well as their desired skills and work situations. All five interviewees were currently working as instructional designers with some experience in e-learning development. When presented with the e-learning design skills spectrum of *novice, advanced beginner, competent, proficient, and expert*, three interviewees characterized their e-learning development skills as *novice* or *advanced-beginner* levels. Two of them had less than one year of e-learning development experience and the third had four years of experience. Two other interviewees who had three or six years of e-learning development experience described their e-learning development skill level as *competent*. Based on their demographic information, we put the five interviewees into *fairly new* and *somewhat experienced* groups, as shown in Table 7.

A clear theme emerged when interviewees expressed their current capabilities as well as the perceived capabilities of their more marketable selves. The fairly new e-learning developers used words such as *basic* and *simple* repeatedly while describing their current e-learning development capacity. They indicated that they could develop projects that provide a simple e-learning experience. In contrast, those who described themselves as competent

All interviewees indicated the importance of receiving environmental support to help them become more competent and marketable e-learning developers who can develop more interactive and engaging e-learning products.

e-learning developers indicated that they could develop e-learning products with more interactivity. No interviewees indicated that their current e-learning development skills would allow them to produce advanced interactive e-learning products.

All interviewees indicated *the importance of receiving environmental support* to help them become more competent and marketable e-learning developers who could develop more interactive and engaging e-learning products. They listed support elements such as time and opportunities to use different software to develop a variety of content along with coaching and training. They estimated that it would take six months to three years to attain more competent skill-sets.

When probed to explain what prevented them from achieving their ideal work situation, interviewees cited many of the same environmental factors that would impact their marketability: lack of access to training, time for training, and supervisor support. However, an insufficient business network and low confidence in one's feelings of readiness were also cited as barriers. Therefore, there seems to be heavy overlap between the perceived factors that would influence their progress to the next level (marketability) and the perceived factors that influence their ability to attain the perfect work situation.

CASE STUDY II: AN ORGANIZATION'S SUPPORT FOR E-LEARNING DEVELOPMENT
Corporate Sample and Procedure

The corporate sample consisted of a group of e-learning practitioners working as instructional designers on e-learning projects at Excellent Healthcare, Inc. (pseudonym), a nonprofit healthcare organization operating facilities across the United States. Among 67 practitioners who were invited, 25 voluntarily participated in

TABLE 7	TWO GROUPS OF INTERVIEWEES COMPETENCY SELF-ASSESSMENT	
	FAIRLY NEW E-LEARNING DEVELOPERS (N = 3)	SOMEWHAT EXPERIENCED E-LEARNING DEVELOPERS (N = 2)
E-learning development level	Novice or Advanced Beginner	Competent
E-learning development experience	Less than six months, one year, or four years	Three or six years
Instructional design experience	Less than a year, three years, or six years	Three or four years

TABLE 8	CORPORATE SAMPLE'S JOB RESPONSIBILITIES	
JOB ROLE / NO. OF YEARS OF EXPERIENCE	INSTRUCTIONAL DESIGNER	E-LEARNING DEVELOPER
Never	1 (4%)	2 (8%)
For 1 year or less	2 (8%)	2 (8%)
For 2 years	3 (12%)	6 (24%)
For 5 years	5 (20%)	5 (20%)
For more than 5 years	14 (56%)	10 (40%)
Total	25 (100%)	25 (100%)

TABLE 9	CORPORATE SAMPLE'S CURRENT E-LEARNING SKILLS					
E-LEARNING SKILLS / NO. OF YEARS OF E-LEARNING JOB	NOVICE	ADVANCED BEGINNER	COMPETENT	PROFICIENT	EXPERT	TOTAL
Never	2	0	0	0	0	2 (8%)
For 1 year or less	1	1	0	0	0	2 (8%)
For 2 years	1	1	3	1	0	6 (24%)
For 5 years	1	1	3	0	0	5 (20%)
For more than 5 years	3	1	0	5	1	10 (40%)
Total	8 (32%)	4 (16%)	6 (24%)	6 (24%)	1 (4%)	25 (100.0%)

the study by completing the same survey (see Appendix A). The corporate sample completed the survey between February and March of 2017.

The survey respondents from the corporate sample ranged in age from 30 to over 60 with most in the 40 to 59 years old range. Most respondents (99.06%) had completed a college or university degree program; 20% had an associate's degree, 40% had a bachelor's, 20% had a master's, and one had a doctorate. One person, with related work experience did not have a college degree.

Among 25 respondents, 19 (76%) and 15 (60%) had had instructional design and e-learning responsibilities for five or more years, respectively (see Table 8). Only one person (4%) considered him/herself to have an expert level of

e-learning development skills, two (48%) categorized themselves as competent or proficient, 16% identified as having advanced beginner skills, and 12 (32%) said they only had novice e-learning development skills (see Table 8). This is concerning given that instructional design with e-learning development was part of the job requirements for 92% (n = 23), and the same percentage (92%) believed it was important, highly important or very important to possess e-learning development skills.

Organizational Support and E-Learning Developers' Current Skills

The e-learning content tools that Excellent Healthcare, Inc. provided to the respondents are listed in Table 10. For interactive content development, the organization was

TABLE 10	TOOLS PROVIDED TO CREATE E-LEARNING CONTENT
PURPOSE	TOOLS PROVIDED BY THE ORGANIZATION
To create content for instructor-led training	PowerPoint Wiki Adobe Acrobat Pro
To create interactive content and publish it	Articulate Storyline Articulate Studio '13 Captivate Lectora
To create audio and image files (screen shots)	Audacity Snagit One Note Format Factory

TABLE 11	CORPORATE SAMPLE'S PREFERENCE RATINGS					
	CAPTIVATE IS BETTER	STORYLINE IS BETTER	NO DIFFER-ENCE	I DON'T KNOW	MISSING DATA	TOTAL
1. Adding closed captions (related to the redundancy principle and to comply with Section 508)	0 (0.00%)	4 (16.00)%	0 (0.00%)	15 (60.00%)	6 (24.00%)	25 (100%)
2. Adding audio narration to slides (for the modality principle)	0 (0.00%)	3 (12.00%)	2 (8.00%)	14 (56.00%)	6 (24.00%)	25 (100%)
3. Developing simulated software training products (related to the multimedia principle)	1 (4.00%)	2 (8.00%)	1 (4.00%)	15 (60.00%)	6 (24.00%)	25 (100%)
4. Adding text next to graphics during simulated software training (related to the contiguity principle)	0 (0.00%)	5 (20.00%)	0 (0.00%)	14 (56.00%)	6 (24.00%)	25 (100%)
5. Aligning time sequence of objects (text, images, buttons, etc.) using the timeline	1 (4.00%)	2 (8.00%)	2 (8.00%)	14 (56.00%)	6 (24%)	25 (100%)
6. Formatting text (e.g., changing font type, size, color, line spacing, etc.)	0 (0.00%)	4 (16.00)%	1 (4.00%)	14 (56.00%)	6 (24%)	25 (100%)
7. Developing slides that do not look like PowerPoint slides	1 (4.00%)	1 (4.00%)	2 (8.00%)	15 (60.00%)	6 (24%)	25 (100%)
8. Adding images to slides (related to the multimedia principle)	0 (0.00%)	3 (12.00%)	2 (8.00%)	14 (56.00%)	6 (24.00%)	25 (100%)
9. Publishing e-learning products	0 (0.00%)	4 (16.00)%	1 (4.00%)	14 (56.00%)	6 (24.00%)	25 (100%)
10. Adding characters to slides (related to the personalization principle)	0 (0.00%)	5 (20.00%)	0 (0.00%)	14 (56.00%)	6 (24.00%)	25 (100%)

We learned that instructional designers and e-learning developers without formal training are not quite equipped to make decisions about the suitability of REDTs for specific project goals and targeting audience needs.

using some of the most popular REDTs including Articulate Storyline and Captivate.

Similar to the academic sample, 16 (64%) and 15 (60%) out of 25 respondents had never used Captivate and Storyline, respectively. However, only four to five respondents (16–20%) indicated that they had used both Captivate and Storyline long enough to be able to compare the characteristics of the two tools (see Table 11). More than half (56–60%) were unable to compare the two tools to make a decision on the suitability of the tools for use with specific project requirements.

CONCLUSIONS

We learned that novice e-learning developers generally prefer Storyline to Captivate for rapid e-learning projects. We learned that instructional designers and e-learning developers without formal training are not quite equipped to make decisions about suitability of REDTs for specific project goals and target-audience needs. As they begin to develop their instructional-design and REDT expertise, they identify features in each tool that are more suitable for specific project goals and learner needs. This finding

replicates previous research findings: expertise is required before one can choose specific REDTs based on their suitability for project needs (Giacumo & Conley, 2015).

Novice instructional designers generally desire more professional development and manager support. There may be a potential need for a more advanced e-learning and performance-support internal training or for external certificate programs, which provide structure, support, accountability, and networking opportunities for career advancement. There may be an opportunity to offer training on more advanced instructional design and e-learning skill-sets for working in matrix-management and project-team situations where influencing and negotiation skills are required for successful appointments.

Staying current on REDTs and processes is vital for any performance improvement specialists, instructional designers, or learning and development leaders. The success of their initiatives as individuals can affect the overall performance of the organization. Many of the individuals currently working in these roles or who seek to make an entry into these roles need professional development support for acquiring the theory and skill-sets required to produce more efficient, effective, and engaging rapid e-learning products.

Limitations and Transferability of the Case Studies

Our two case studies represent a crosscheck from consecutive semesters of a REDD course and one large corporate organization. Despite the use of two cases, generalizability of the case study findings would be limited due to the lack of randomized research design. Instead, we suggest that other organizations transfer our case-study findings to their organizational context and reflect on their practice of providing training and educational support as well as other environmental support to maximize the capacity of their e-learning developers. ⚹

APPENDIX A: USER VALUE ANALYSIS QUESTIONNAIRE

Informed Consent

I have read the informed consent form and decided that I will participate in the project described in the consent form. Its general purposes, the particulars of involvement and possible risks have been explained to my satisfaction. I understand I can withdraw at any time.

☐Yes   ☐No

ABOUT YOURSELF

1. **Age**: _____ years old

2. **Are you currently employed?** ☐Yes ☐No

3. **In which industry do you currently work?** (If you are not currently employed, answer using your past employment.)

4. **What is your current job title?** (If you are not currently employed, answer using your past employment.)

5. **During your entire career, how long have you been involved in instructional design as part of your job responsibilities?**

☐Never	☐For 1 year or less	☐For 2 years	☐For 5 years	☐For longer than 5 years

6. **During your entire career, how long have you involved in e-learning development as part of your job responsibilities?**

☐Never	☐For 1 year or less	☐For 2 years	☐For 5 years	☐For longer than 5 years

7. **How would you describe the current level of your e-learning development skills?**

☐Novice	☐Advanced Beginner	☐Competent	☐Proficient	☐Expert

8. **How important is it that you gain e-learning development skills? Select a number**.

Not important at all ☐1	☐2	☐3	☐4	☐5 Very important

Please explain why:

ABOUT CAPTIVATE

9. **Before you took the OPWL 523 Rapid E-learning Development class this semester, how long did you use Captivate?**

☐Never	☐For 6 months or less	☐For a year	☐For 2 years	☐For more than 2 years

10. **What do you like about using Captivate to develop e-learning products? Select a number.**

How quickly I can learn how to use it.	Poor □1 □2 □ 3 □4 □5 Excellent
How user-friendly the interface is.	Poor □1 □2 □ 3 □4 □5 Excellent
How quickly I can develop a product with it.	Poor □1 □2 □ 3 □4 □5 Excellent
How useful the menu items and other features are.	Poor □1 □2 □ 3 □4 □5 Excellent
How well it helps me incorporate my instructional strategies.	Poor □1 □2 □ 3 □4 □5 Excellent
How the final products look.	Poor □1 □2 □ 3 □4 □5 Excellent

11. **Which features of Captivate do you find to be most useful? Select the top 3 useful features and describe why.**
    1)
    2)
    3)

12. **While you were learning how to use Captivate to develop an e-learning product,**
    - What were the things that helped you feel motivated to learn to use the program?
    - What were the things that made you feel demotivated to learn to use the program?

ABOUT STORYLINE

13. **Before you took the OPWL 523 Rapid E-learning Development class this semester, how long did you use Storyline?**

□Never	□For 6 months or less	□For a year	□For 2 years	□For more than 2 years

14. **What do you like about using Storyline to develop e-learning products? Select a number.**

How quickly I can learn how to use it.	Poor □1 □2 □ 3 □4 □5 Excellent
How user-friendly the interface is.	Poor □1 □2 □ 3 □4 □5 Excellent
How quickly I can develop a product with it.	Poor □1 □2 □ 3 □4 □5 Excellent
How useful the menu items and other features are.	Poor □1 □2 □ 3 □4 □5 Excellent
How well it helps me incorporate my instructional strategies.	Poor □1 □2 □ 3 □4 □5 Excellent
How the final products look.	Poor □1 □2 □ 3 □4 □5 Excellent

15. **Which features of Storyline do you find to be most useful? Select the top 3 useful features and describe why.**
    1)
    2)
    3)

16. **While you were learning how to use Storyline to develop an e-learning product,**
    - What were the things that helped you feel motivated to learn to use the program?
    - What were the things that made you feel demotivated to learn to use the program?

OVERALL SUPPORT FOR INSTRUCTIONAL DESIGN

17. **Which instructional strategies or elements do you often use, or plan on using, in your e-learning products? Describe as many as you can think of. (e.g., drill-and-practice type quizzes, game-like methods, video-embedded segments, simulated software training, scenario-based learning)**

18. **If you had to use only one program between Captivate and Storyline, which one would you prefer using when developing e-learning products with the instructional strategies that you listed? Select only one.**

- ☐ Captivate
- ☐ Storyline

   Please describe why:

19. **Which e-learning development programs does your organization currently provide (including the organization's plan to purchase)? Select all that apply. (If not currently employed, answer using the past employment).**

- ☐ Captivate
- ☐ Storylin
- ☐ Other (describe)

   Please describe how the organization decided to provide the program(s):

20. **Which program do you think does a better job at completing the following tasks?**

   Please place X in a cell.

	CAPTIVATE IS BETTER	STORYLINE IS BETTER	NO DIFFER-ENCE	I DO NOT KNOW
Formatting text (e.g., changing font type, size, color, line spacing, etc.)				
Adding images to slides (related to the multimedia principle)				
Adding audio narration to slides (for the modality principle)				
Adding closed captions (related to the redundancy principle and to comply with Section 508)				
Adding characters to slides (related to the personalization principle)				
Developing simulated software training products (related to the multimedia principle)				
Adding text next to graphics during simulated software training (related to the contiguity principle)				
Aligning time sequence of objects (text, images, buttons, etc.) using the timeline				
Developing slides that do not look like PowerPoint slides				
Publishing e-learning products				

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