

# Enhancing Digital Literacy and Learning Among Adults With Blogs

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Blogs provide opportunities for adult learners to participate in meaningful collaborative learning experiences that merge effective literacy practices with digital applications.

Recent literature has noted the lack of attention given to adult literacy (Ortlieb & Young, 2016), particularly with respect to digital learning among adults (Jacobs, Castek, Pizzolato, Reder, & Pendell, 2014). Although access to technology has increased, digital divides still persist (Perrin & Duggan, 2015). Specifically, digital divides are most prevalent among adults who are older, are racially and ethnically diverse, reside in rural communities, and have lower levels of income and educational attainment.

The manifestation of new technologies has also engendered a digital divide of literacy and skills among adults (Antonio & Tuffley, 2015; Jesnek, 2012; Pendell, Withers, Castek, & Reder, 2013; Radovanović, Hogan, & Lalić, 2015). Reder (2015) asserted that these digital inequities have a negative impact on achieving the four sequential stages of digital inclusion:

1. *Digital access*: Access to digital tools
2. *Digital taste*: Preferences for and choices with digital tools
3. *Digital readiness*: Basic knowledge of and skills in digital tools
4. *Digital literacy*: Systematic application of and proficiency with digital tools

Although the majority of adults have reached the final stage of digital inclusion, Reder noted that many possess weak digital literacy skills.

Despite these growing concerns, digital technologies have substantially impacted learning environments. Presently, adult educators incorporate varying levels and types of digital technologies into traditional, blended, and online learning environments. Consequently, adult learners must be competent individuals who

have reached the final stage of digital inclusion (Reder, 2015) and possess proficiency with digital literacy skills (Eshet, 2012; Eshet-Alkalai, 2004).

In an effort to better understand effective ways to support digital literacy and learning among adults, I recently experimented with blogs to facilitate a collaborative learning experience in an online graduate course. The central purpose of this study was to investigate the perceptions of adult learners regarding blogs as a tool for learning. In this article, I share findings from this study that provide adult educators with preliminary insights related to this underdeveloped area of research. Findings highlight the significance of technology acceptance and the inclusion of collaborative learning experiences to promote digitally inclusive learning environments among adult learners.

## Review of Relevant Literature

Collaborative learning has been cited as an effective instructional practice for adult learners (Brookfield, 1986). According to Roschelle and Teasley (1995), collaboration occurs when small groups of learners interact “to construct and maintain a shared conception” (p. 70). Within online learning environments, adult educators must refashion literacy-rich collaborative learning experiences through the use of digital tools, such as blogs. Blogs are digital writing spaces that combine both individual and collective interactions among learners who use a reflective style of writing through collaborative

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dialogues (Chang & Chang, 2014). Learners utilize a variety of literacy skills as they publish written text and multimodal elements online (e.g., images, videos, audio files), as well as engage in virtual dialogue with peers (Neira-Piñero, 2015).

As adult educators merge effective literacy practices into online learning environments, they must take into consideration concepts that underpin technology acceptance. The technology acceptance model was originally proposed as a theoretical framework for technology acceptance within business and organizational contexts (Davis, 1989). The original model postulated that technology acceptance depends on how a user perceives its ease of use and usefulness. Davis defined perceived ease of use as “the degree to which a person believes that using a particular system would be free of effort” and perceived usefulness as “the degree to which a person believes that using a particular system would enhance his or her job performance” (p. 320). Although much research has extended the original technology acceptance model with additional variables (Sharp, 2007), the influence of the two original variables has been reliably established within educational contexts (Rienties, Giesbers, Lygo-Baker, Ma, & Rees, 2016).

This study sought to extend existing literature by focusing on how learner perceptions of technology acceptance and the inclusion of collaborative learning experiences promote digitally inclusive learning environments among adult learners. A critical element of this study was its focus on how collaborative learning and literacy promote learner understandings within online contexts through the use of blogs. This focus was especially germane to recognizing how digital inclusion is supported through effectual literacy and learning practices that have been refashioned for online contexts.

## Theoretical Framework

Sociocultural theory and perspectives guided the theoretical framework for this study. This study drew on the belief that learning is a “situated activity” in which learners seek to master knowledge and skills by engaging in “full participation in the sociocultural practices of a community” (Lave & Wenger, 1991, p. 29). Gee’s (2012) concepts related to Discourses drove the understanding that learners possess “socially situated identities” that are shaped by “ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing” (p. 3). Thus, literacy practices among learners were viewed as ideological and forever entrenched in social and cultural contexts (Street, 1984, 1995).

This study also drew on concepts of literacy and learning within online contexts. Although initial conceptions of digital literacy were cognitive based and emphasized the acquisition of fundamental core competencies (Gilster, 1997), this study relied on alternative notions related to multiliteracies (New London Group, 1996) that acknowledged sociocultural underpinnings (Lankshear & Knobel, 2006). Literacy practices within online contexts are “more participatory, collaborative, and distributed, and less ‘published,’ less ‘author-centric,’ and less ‘individual’” (Knobel & Lankshear, 2014, p. 98).

## Method

### Context

Participation in this study was open to all graduate students enrolled in an online course entitled “Educational Research.” This course was offered in the education department at a regional, public university located in the Southern United States. At the time of this study, the course was designated as a core course required for all students enrolled in graduate degree programs offered through the department. The course’s overarching objective was to familiarize students with techniques associated with research in education. The culminating project required students to identify and research a self-selected educational problem. Based on their topic, students developed an action research manuscript that included an introduction for their research topic, a review of relevant literature, and a proposed methodology with which to explore the problem.

### Participation

I sought participation from students who were enrolled in course sections that I taught during the summer and fall 2016 semesters. A recruitment e-mail was sent to students at the beginning of each semester, and 46 students elected to participate. As reflected in Table 1, the majority of participants indicated that they had no previous experience with blogs in academic or nonacademic settings.

### Blog Collaborative Learning Experience

At the beginning of both semesters, participants were randomly assigned to three different small groups consisting of six to eight group members (i.e., groups 1, 2, and 3). Throughout the semester, I used these small groups for collaborative learning experiences that entailed a variety of digital tools, such as blogs. The instructional

**Table 1**  
Demographics of Participants

Characteristic	<i>n</i>	
<i>Semester</i>		
Summer 2016	19	
Fall 2016	27	
<i>Gender</i>		
Male	17	
Female	29	
<i>Previous experience with blogs</i>		
	Yes	No
Academic settings	13	33
Nonacademic settings	14	32

objective for these experiences was to promote the ability to synthesize understandings with course content and selected research topics among participants. I embedded the first collaborative learning experience with the first lesson in the course. There were three learning outcomes associated with the first lesson:

1. Express an understanding of the research process.
2. Distinguish among the qualitative, quantitative, and mixed-methods research approaches.
3. Describe aspects of the APA (American Psychological Association) style of writing, including manuscript structure and content, writing clearly and concisely, and mechanics.

The first collaborative learning experience used blogs as the digital tool for small-group interactions. I used the blog community digital tool available in the Blackboard 9.1 learning management system to create the blog collaborative learning experience. The objective of this experience was to generate discussion among small-group members related to each of their individually selected research topics. Participants were provided with the following guiding questions:

- What are potential areas that you are interested in researching?
- Why are you interested in researching these areas?
- What are potential audiences with whom you could share your findings?
- How will your proposed research areas be beneficial within your discipline?

Participants were required to post one original blog entry that addressed each of these guiding questions. To ensure a reasonable level of interactions, participants were also required to post three blog comments in response to blog posts made by their small-group members.

I created a different blog for each of the small groups and provided participants with access to their assigned blog after they completed the online lecture and assigned readings associated with the lesson. Once blog access was granted, participants were first invited to complete the presurvey (see Figure 1). Next, participants were encouraged to review the blog directions and assessment criteria (see Figure 2). Then, participants posted their original blog post and blog comments to their assigned blog. Participants were able to access their assigned blog for two weeks. Once participants completed their blog contributions, they were invited to complete the postsurvey (see Figure 1).

### **Data Collection and Analysis**

A quasi-experimental mixed-methods research design was used to explore the central purpose associated with this study (Creswell, 2013). I created the pre- and post-survey instruments using Google Forms to collect both qualitative and quantitative data. Prior to administering the survey instruments, I convened a panel of four digital literacy and adult learning experts to confirm face and content validity.

Quantitative data encompassed responses to two closed-ended statements on pre- and postsurvey instruments. Using a 5-point Likert-type scale, participants rated their perceived ease of use with blogs in response to the following statement: "Rate your level of confidence with using blogs as a tool for collaborative learning in an online environment." Similarly, participants rated their perceived usefulness with blogs in response to the following statement: "Rate your perception of the importance of using blogs as a tool for collaborative learning in an online environment." Internal consistency and reliability for the four statements were calculated using Cronbach's alpha (.68), which was considered acceptable (Kline, 2000). To analyze and report quantitative findings, I used paired sample *t*-test statistical analyses and descriptive statistics with IBM SPSS Statistics software (Field, 2013).

Qualitative data encompassed responses to open-ended questions included on both survey instruments. On the presurvey instrument, participants responded to two questions: "What are your initial thoughts re-

Figure 1  
Pre- and Postsurveys Administered to Participants

### Pre-Digital Literacy Practice Survey: Blogs

\* Required

Please enter your name. \*

Your answer

Have you used a blog before as a learner in an academic setting?

Yes

No

Have you used a blog before in non-academic settings?

Yes

No

Rate your level of confidence with using blogs as a tool for collaborative learning in an online environment.

1    2    3    4    5

Not At All Confident      Very Confident

Rate your perception of the importance of using blogs as a tool for collaborative learning in an online environment.

1    2    3    4    5

Not At All Confident      Very Confident

What are your initial thoughts regarding the benefits of using blogs as a tool for collaborative learning in an online environment?

Your answer

What are your initial thoughts regarding the challenges of using blogs as a tool for collaborative learning in an online environment?

Your answer

**SUBMIT**

Never submit passwords through Google Forms.

### Post-Digital Literacy Practice Survey: Blogs

\* Required

Please enter your name. \*

Your answer

Rate your level of confidence with creating a blog as a tool for collaborative learning in an online environment.

1    2    3    4    5

Not At All Confident      Very Confident

Rate your perception of the importance of creating a blog as a tool for collaborative learning in an online environment.

1    2    3    4    5

Not At All Confident      Very Confident

What is the most important thing you will take away from your recent experience with blogs?

Your answer

What challenges or struggles did you encounter when you created a blog?

Your answer

**SUBMIT**

Never submit passwords through Google Forms.

Note. The color figure can be viewed in the online version of this article at <http://ila.onlinelibrary.wiley.com/>.

Figure 2  
Directions and Assessment Criteria for Blog Participation

After completing the Pre-Digital Literacy Practice Survey: Blogs, you and your small group members will create a blog. A blog is essentially an online journal to communicate your thoughts and ideas. Within your small group blog, you will complete a minimum of one (1) original blog entry and three (3) comments. Your activity will be assessed with the rubric below.

Directions for Creating an Original Blog Entry

1. Click **Create Blog Entry**.
2. Type a **Title** for your blog entry.
3. In the **Entry Message** box, type text that generates discussion related to these questions:
  - What are potential areas that you are interested in researching?
  - Why are you interested in researching these areas?
  - What are potential audiences with whom you could share your findings?
  - How will your proposed research areas be beneficial within your discipline?

In the **Entry Message** box, you may format the text and add images, links, multimedia, and attachments using the functions in the content editor.

4. When you complete your blog entry, click **Post Entry**.

Directions for Commenting

1. In your small group blog, select a group member's name in the side panel in the **View Entries** by section.
2. Click **Comment** following the user's entry.
3. Type a comment in the **Comment** box.
4. Click **Add**.

Criteria	N/A	Improvement Needed	Proficient Performance	Advanced Performance
Original Blog Entry	0 points	0-49 points Original blog entry did not address and/or minimally addressed one or more guiding questions.	50 points Original blog entry thoroughly addressed each of the guiding questions.	55 points Original blog entry thoroughly addressed each of the guiding questions and included formatted text, images, links, multimedia, and/or attachments.
Blog Comment #1	0 points	0-9 points Blog comment was minimal in content and fostered little interaction among group members.	10 points Blog comment was specific, detailed, and somewhat added to the interaction among group members.	15 points Blog comment was specific, detailed, and thoroughly added to the interaction among group members.
Blog Comment #2	0 points	0-9 points Blog comment was minimal in content and fostered little interaction among group members.	10 points Blog comment was specific, detailed, and somewhat added to the interaction among group members.	15 points Blog comment was specific, detailed, and thoroughly added to the interaction among group members.
Blog Comment #3	0 points	0-9 points Blog comment was minimal in content and fostered little interaction among group members.	10 points Blog comment was specific, detailed, and somewhat added to the interaction among group members.	15 points Blog comment was specific, detailed, and thoroughly added to the interaction among group members.

garding the benefits of using blogs as a tool for collaborative learning in an online environment?” and “What are your initial thoughts regarding the challenges of using blogs as a tool for collaborative learning in an online environment?” On the postsurvey instrument, participants responded to these two questions: “What is the most important thing you will take away from your recent experience with blogs?” and “What challenges or struggles did you encounter when you created a blog?”

I initially tabulated and reported the number of comments and overall word count for qualitative data. I then used grounded theory analysis to generate an abstract theory resulting from an inductive and systematic review of qualitative data (Glaser & Strauss, 1967). Through constant comparisons within three levels of coding, I generated conceptual categories (i.e., open coding), connected the categories (i.e., axial coding), and identified core conceptual categories (i.e., selective coding). I established validity with qualitative analyses by performing periodic member checks. I also established reliability by inviting colleagues with similar expertise to confirm accuracy with inferences I made during each level of coding.

## Findings

### Quantitative Findings

Quantitative findings produced interesting findings related to the perceived ease of use and usefulness of blogs as a tool for collaborative learning among participants. As shown in Table 2, participants rated their perceived ease of use with blogs higher after blog participation (mean [ $M$ ] = 3.80, standard deviation [ $SD$ ] = 0.91) than they did before ( $M$  = 2.85,  $SD$  = 1.19). Statistical testing

revealed that the mean difference was significant,  $t(45) = -5.44, p = .00$ . For this statistically significant finding, Cohen’s  $d$  was calculated at 0.90, which is considered a large effect (Cohen, 1992).

Similarly, participants rated their perceived usefulness with blogs higher after blog participation ( $M$  = 3.89,  $SD$  = 0.88) than they did before ( $M$  = 2.91,  $SD$  = 1.13). Statistical testing revealed that the mean difference was significant,  $t(45) = -6.36, p = .00$ . For this statistically significant finding, Cohen’s  $d$  was calculated at 0.97, which is considered a large effect (Cohen, 1992). These quantitative findings indicated that use of blogs as a collaborative tool for learning in an online environment significantly enhances technology acceptance among adult learners.

### Qualitative Findings

Qualitative findings produced interesting findings related to views toward the benefits and challenges associated with blog usage among participants. Responses to the open-ended questions produced 189 comments totaling 5,000 words, which were analyzed qualitatively (see Table 3).

While analyzing the data, I identified 22 initial codes, such as personal views, shared experience, convenience, and affective concerns. I revisited the central purpose of this study and made continuous comparisons of codes against codes, and data against data. Through this process, I was able to make distinctions, identify connections, and discern four core conceptual categories: cautionary aspects and constraints, personal and communal dimensions, learner dispositions, and affordances (see Tables 4 and 5). Using examples of supportive data, I present a discussion of these categories next.

Table 2  
Perceived Ease of Use and Usefulness ( $n = 46$ )

Determinant for technology acceptance	$M$	$SD$	$t$	$p$	95% confidence interval	Cohen’s $d$
<i>Ease of use</i>						
Presurvey	2.85	1.19	-5.44	.00	[-1.31, -0.60]	0.90
Postsurvey	3.80	0.91				
<i>Usefulness</i>						
Presurvey	2.91	1.13	-6.36	.00	[-1.29, -0.67]	0.97
Postsurvey	3.89	0.88				

**Table 3**  
Counts Associated With the Open-Ended Survey Questions

	Presurvey		Postsurvey	
	Comments	Words	Comments	Words
<i>Question 1</i>				
Summer 2016	20	536	19	511
Fall 2016	28	772	27	471
<i>Question 2</i>				
Summer 2016	20	617	20	651
Fall 2016	28	821	27	621

**Table 4**  
Counts Associated With the Four Core Conceptual Categories

Core conceptual category	Supportive data count	Overall word count
Cautionary aspects and constraints	79	2,050
Personal and communal dimensions	85	1,516
Learner dispositions	99	1,409
Affordances	16	305

**Cautionary Aspects and Constraints.** Participants were most expressive about potential pitfalls associated with blog usage. They described both anticipated and experienced concerns that were affective, communicative, participatory, temporal, and related to technology.

**Affective Concerns.** Some participants referenced aspects of their own personality (e.g., “anti-social,” “shy”) that had the potential to impede blog performance. However, the majority of affective statements indicated anxieties with peer behaviors and perceptions. With respect to peer behaviors, one participant shared, “People are very kind with their comments so far. I was worried about people hiding behind their keyboards and saying mean things, but they haven’t yet.” Another participant shared distress with peer perceptions: “It is very stressful for me because I tend to think that my opinion or statement may not be what people want to read.”

**Communicative Concerns.** Participants conveyed two different types of communicative concerns: issues related to the composition of written text and issues related to interpretations with written text. With respect to composition, a few participants noted perceived limitations with their writing in general. For example,

I struggled with my topic, I think sometimes that I tend to over analyze things. I finally was able to narrow my topic down but that took some time to do. I looked at different source types in order reach my topic. I think it is important to keep an open mind when it comes to re-searching so that you can get the resources you need to make a good blog.

However, the majority of communicative concerns were with peer interpretations of written text. Within these references, participants emphasized that their major concern was with misinterpretation of their written ideas.

**Participatory Concerns.** As noted by one participant, “Everyone must fully participate [with the blog] to get the benefit.” Hence, the potential for interaction inherent within this digital literacy practice cannot be realized when individual team members lack active participation. This participant further remarked, “It can be frustrating if paired with people who are not technology competent or who do not respond in a timely manner.”

**Temporal Concerns.** Some of the temporal concerns that participants noted echoed similarities with participatory concerns. For example, a number of participants acknowledged the importance of their peers to “manage their time” and “use the blog in a timely manner” for their “responses to be useful.” Similarly,

**Table 5**  
Core Conceptual Categories, Descriptions, and Supportive Data

Core conceptual category	Description	Examples of supportive data
Cautionary aspects and constraints	Comments that described either experienced or potential pitfalls with blogs	<ul style="list-style-type: none"> <li>■ "It is very difficult to read tone with the written word."</li> <li>■ "My only struggle was waiting on others to post so that I could work more on my part of the activity. I don't like to leave things until the last minute, if possible."</li> <li>■ "I had problems trying to figure out how to insert videos, hyperlink links, and add pictures."</li> </ul>
Personal and communal dimensions	Comments that described blog features associated with individuals (e.g., contribute ideas, source of inspiration) and a group of individuals (e.g., diverse perspectives, shared experiences)	<ul style="list-style-type: none"> <li>■ "My reflections are recorded for further study and peer review."</li> <li>■ "This blog gave me ideas that I had not come up with regarding research topics."</li> <li>■ "I found that the members of my group had some of the same educational concerns that I have. It was very interesting to me to see how they put forth their thoughts."</li> <li>■ "It was very interesting to go through and read my classmates and fellow educators take on my blog. It encouraged me to consider things I hadn't yet thought about and look at things through a new lens."</li> </ul>
Learner dispositions	Comments that described personal views, inclination to learn, familiarity, or self-efficacy with blogs	<ul style="list-style-type: none"> <li>■ "I accept the challenge and am willing to learn. Excited!"</li> <li>■ "I see them in a sort of negative light."</li> <li>■ "I am completely unfamiliar with this style of online 'conversation.'"</li> <li>■ "Open-minded to it."</li> </ul>
Affordances	Comments that described ways in which blogs are an effective tool for school, work, and global contexts	<ul style="list-style-type: none"> <li>■ "Blogs can be accessed anywhere with Internet access."</li> <li>■ "The ability to jot down ideas and respond to ideas in a nontraditional classroom environment with standard time constraints."</li> <li>■ "I feel that it is a tool that will help us with the different aspects of our workplace and personal life."</li> <li>■ "Good way to see ideas from different people all over the country and world."</li> </ul>

several participants recognized that they, too, needed to be effective stewards with time and "remain active in checking them [blogs] daily for posts and responses."

**Technology Concerns.** One participant pointed out that "there is always the risk of technology failing." Although the blog platform did not experience tech-

nical malfunctions, several participants referred to specific issues that they encountered with "navigating and learning the tools of the blog," particularly with the insertion of multimedia elements. As previously noted, the majority of participants were inexperienced with blogs, which was reiterated within the qualitative data (e.g., "I am so very new to all of this technology"). Despite

this learning curve, a few participants commented that they would be able to overcome these issues “with more practice.”

**Personal and Communal Dimensions.** Personal dimensions were blog features associated with individuals. For example, a number of participants viewed themselves as contributors and remarked that blogs were “a good way to help communicate ideas and information.” Participants also felt inspired by blog features that assisted with their ability to “brainstorm ideas.” One participant shared, “I did not know where to start, but after reading my colleague’s blogs, I had a better understanding.”

Communal dimensions were blog features associated with a group of individuals. As part of a small group, participants underscored the prominence of interaction and collaboration with blogs. Participants felt that collaboration was “a critical part of learning” and that blogs were an ideal way to “communicate ones thoughts and ideas especially in an online course.” Participants also felt validated when they encountered shared experiences among peers. One participant appreciated “knowing that other teachers are facing the same issues I am.” In a similar manner, this collaborative literacy practice exposed blog participants to a wide variety of diverse perspectives. Participants noted that “seeing problems and possible solutions from different viewpoints” facilitated their ability “to consider things I hadn’t yet thought about and look at things through a new lens.” According to one participant,

The most important thing I will take away is that my thoughts and my own voice are going to be read by someone else. They are going to take a step into my mind, and we will all be able to understand each other’s passions. We are all individuals but for this class, blog, and topic, we are all united.

**Learner Dispositions.** Data related to learner dispositions described personal views, inclinations to learn, familiarity, or self-efficacy with blogs. Although most of the participants were unfamiliar with blogs prior to this study, the majority indicated positive views toward blogs as a collaborative tool for learning (e.g., “beneficial,” “sounds interesting,” “effective,” “useful”). However, some divergent views about blogs were presented at the inception of the study and indicated nervousness, lack of comfort, intimidation, and the possibility of stress. Despite these conflicting preliminary views, several references were made that participants were “looking forward to getting familiar” with blogs and how they “work and enhance the learning

setting.” Moreover, a number of statements were made that indicated increases in self-efficacy with blogs after participation:

- “I didn’t feel any challenges or struggles in creating a blog due to the step by step directions that were provided to me.”
- “It was just new technology and took a little time to learn and get used to.”
- “They aren’t as scary as I thought!”

**Affordances.** Affordances described ways in which blogs are an effective tool for school, work, and global contexts. With respect to school contexts, participants attributed blogs as “a means to better understand the content of the course.” In addition to previous notions with personal and communal dimensions, participants observed that blogs afford them “the ease that social media has allowed us to communicate” as they “jot down ideas and respond to ideas in a nontraditional classroom environment.” Participants also commented that blogs were convenient in that they “can be accessed anywhere where there is Internet access” and were “limitless on the amount of information (content) that can be made available.”

Beyond school contexts, references were also made to professional contexts. One participant stated that blogs were “a tool that will help us with the different aspects of our workplace and personal life.” Another participant expanded on this concept by alluding to the potential of blogs to “reinforce the parent–teacher relationships.”

Finally, a few statements established affordances of blogs within global contexts. One participant specified that blogs were “useful tools for collaboration, especially if we are collaborating with people from other cities and states.” Similarly, another participant asserted that blog participation was a “good way to see ideas from different people all over the country and world.”

## Limitations and Recommendations

Although findings from this study brought forth fresh understandings related to digital literacy and learning among adults, there were a few limitations. First, this study was limited to survey data obtained from pre- and postsurvey instruments. Gonyea (2005) pointed out that responses elicited from survey-type instruments are influenced and limited by (a) an understanding of the questions, (b) the ability to retrieve genuine recollections with which to make inferences, (c) judgments

as to completeness and relevance of recollections, and (d) reporting mechanisms. Also, as with any type of self-reported data, issues related to validity and reliability may be present (Gonyea, 2005), including phenomena related to social desirability (Moorman & Podsakoff, 1992). I recommend that future studies should be conducted utilizing empirical data, such as measures of learning (e.g., course grades, progress measures), to further explore the impact of blog usage among adult learners.

Another limitation with this study was the exclusion of the nature and levels of interaction with the blogs. Although actual learner performance is an extremely significant factor, literature has emphasized the influence that perceptions with technology usage has on learner performance theoretically (O'Malley & McCraw, 1999; Sharp, 2007) and empirically (O'Malley & McCraw, 1999). I recommend that a follow-up study should be conducted to explore the nature and levels of interaction among blog participants.

A final limitation with this study was related to the selection of participants. I used convenience sampling because the context of the study was a naturally formed group of students who enrolled in a graduate-level university course (Creswell, 2013). Although convenience sampling is an advantageous way to elicit participation within similar contexts, it may not provide a representative sample with which to generalize findings. I recommend that follow-up studies should incorporate more robust sampling strategies to enhance the validity of findings.

## Conclusion

By conducting this investigation with a sociocultural lens, I was able to promote a social and collaborative situated learning experience among adult learners (Lave & Wenger, 1991). Within the authentic setting of a blog, each learner engaged in discourse (Gee, 2012) that was shaped by his or her own unique social and cultural contexts (Street, 1984, 1995). It is critical that adult educators recognize sociocultural theories and understandings that underpin digital literacy and learning among adult learners.

Findings from this study present practical implications for adult educators. First, it is critically important that adult educators seek to develop perceived ease of use and usefulness, especially among older learners (Barnard, Bradley, Hodgson, & Lloyd, 2013). Technology is constantly evolving, and perceived ease of use and usefulness are fundamental determinants of technology acceptance (Davis, 1989). Barnard et al.

noted, "There will always be new technologies and new generations of older adults who have to learn how to use these" (p. 1723). Thus, embedding support structures into the design of an online learning environment that develop perceptions related to ease of use and emphasize usefulness with new technologies is an effective way to enhance digital literacy and learning among adult learners.

Findings from this study might also guide the development of future online learning environments for adult learners. Adult educators must design learner-centered online environments that incorporate "participatory, collaborative, and distributed" (Knobel &

## TAKE ACTION!

If you are thinking about using blogs with adult learners, consider the following best practices to create an optimal collaborative learning experience for both you and your learners:

1. Explore several blog platforms. Critically evaluate the advantages and disadvantages of each.
2. Once you have selected an appropriate blog platform, familiarize yourself with its functionality. Consider inviting colleagues, family, and friends with varying levels of technology proficiency to participate in blog interactions. Once you feel adept, elicit feedback from those who participated in the blog interactions.
3. Based on your experiences and feedback received, create a user-friendly learner guide that provides directions for use, recommends suggestions for optimal use, and offers tips for avoiding potential pitfalls.
4. Carefully plan a structured blog learning experience that identifies a clear learning objective, articulates clear directions, and describes well-defined assessment criteria. Once this is created, seek feedback from colleagues (and possibly former students) regarding clarity. Revise as needed.
5. Survey your learners to determine their levels of technology proficiency, familiarity with blogs and the selected blog format, and their perceptions of technology usage. Review their responses and evaluate whether additional revisions to the blog learning experience are needed.
6. Post the blog learner guide that you created in a visible location. Encourage your learners to access this resource before they participate in the blog learning experience. Consider sharing additional resources that may be useful.

Lankshear, 2014, p. 98) literacy practices. Moreover, digital collaborative learning experiences must be designed with the learner in mind to improve the quality of the learning experience for individuals, as well as to enhance the quality of interactions among learners (Rapanta & Cantoni, 2014).

Technology is ubiquitous in all aspects of life. Although the prevalence of technology has reshaped learning environments (Hoskins, 2011), adult educators still encounter digital divides regarding access and literacy among learners (Perrin & Duggan, 2015; Reder, 2015). With this in mind, much more research is needed to explore digital literacy and learning among adults (Mureşan & Gogu, 2014). Recent literature has also noted the presence of a disconnection between adult educators and learners (O'Connell, & Dymont, 2016). Therefore, I encourage adult educators and scholars to engage in continued endeavors to identify and share best practices.

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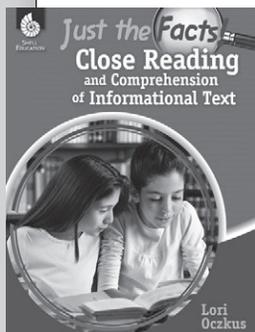
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Resources for adult learning and digital literacy:

- Digital Inclusion Survey's "What Is Digital Inclusion?": <http://digitalinclusion.umd.edu/content/what-digital-inclusion>
- Digital Promise's "Spotlight on Practices": <http://digitalpromise.org/initiative/adult-learning/spotlight-on-practices/>
- Literacy Information and Communication System's "Digital Literacy Initiatives": <https://lincs.ed.gov/programs/digital-literacy>

Resources for teaching online:

- Trottier, V. (2012). *Digital discoveries: Guide to online learning for adult literacy learners*. Barrie, ON, Canada: Community Literacy of Ontario.
- Vai, M., & Sosulski, K. (2016). *Essentials of online course design: A standards-based guide* (2nd ed.). New York, NY: Routledge.



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