# Bluth Company: An Adobe Acrobat Case Motivated by Practitioner Feedback

**David C. Hayes** James Madison University, hayesdc@jmu.du

James H. Irving James Madison University, irvingjh@jmu.edu

# William Kerler

University of North Carolina Wilmington, kerlerw@uncw.edu

**Lorraine Lee** University of North Carolina Wilmington, leel@uncw.edu

#### Abstract

International Accounting Accreditation Standard A5, issued by the Association to Advance Collegiate Schools of Business (AACSB), requires that information technology competencies be integrated into accounting program curricula. Lee et al. (2018) describe specific software tools used in the accounting profession. As expected, accounting professionals rated Microsoft Excel as the most frequently used software tool. Surprisingly, these professionals rated Adobe Acrobat as the second most frequently used software tool. In a follow-up survey of 286 accounting professionals unique from the respondents in Lee et al. (2018), respondents confirmed the importance of Adobe Acrobat knowledge for accounting graduates entering the profession. This case introduces accounting students to the Adobe Acrobat functions rated most useful to accountants. Students using the case significantly increased their knowledge of the 10 Adobe Acrobat functions accounting professionals rated most important.

#### Keywords

Adobe Acrobat, Professional competencies, Technology

#### Acknowledgements

We appreciate the many helpful comments and suggestions from the co-editors, an anonymous associate editor, and two anonymous reviewers.

© 2021 AIS Educator Association

Accounting education researchers are continually examining whether universities' accounting programs are effectively preparing their graduates for the professional environment (e.g., Yu et al., 2013; Lawson et al., 2015; Rebele & St. Pierre, 2015). Specifically, the accounting education literature has reported how accounting programs are equipping their graduates with technology knowledge, skills, and abilities (e.g., Chen et al., 2009; Welch et al., 2010; Sledgianowski et al., 2017).

Current AACSB accreditation standards for business schools note that "[t]echnology will be ever important, and all AACSB-accredited schools will be expected to have processes in place to ensure that both learners and faculty are competent with current and emerging technologies" (AACSB, 2020, 20). Likewise, for accreditation in accounting, the AACSB's Accreditation Standard A5, Information Technology Skills and Knowledge for Accounting Graduates, requires that "accounting degree programs include learning experiences that develop skills and knowledge related to the integration of information technology in accounting and business" (AACSB, 2018, 27). Technology skills are similarly recognized in the AICPA Pre-Certification Core Competency Framework (AICPA, 2018), which defines a set of skills-based competencies needed by accounting students entering the profession.

We believe that technology is neither learned nor applied in isolation. Besides recognizing the role of technology skills as a core accounting technical competency, the Pre-Certification Core Competency Framework recognizes the importance of technology skills in supporting both business competencies (i.e., the broad business environment) and professional competencies, which relate to the skills, attitudes, and behaviors of accounting professionals (AICPA, 2018). Regarding specific professional competencies identified in the framework, students are expected to *collaborate* ("working productively with diverse individuals in a variety of roles with multiple interested in outcome to achieve acceptable and optimal results"), as well as to *communicate* ("actively listen and effectively deliver information in multiple formats tailored to the intended audience") (AICPA, 2). This merging of technology, collaboration, and communication skills indicates that students must be able to use the latest technology tools to work together in analyzing and communicating business information.

Although both the AACSB and the AICPA have recognized the importance of technology skills for accountants, questions about which specific software tools are important and how such tools can be integrated with other professional competencies remain unanswered. Recommendations for technology tools often mention data analytics tools such as Tableau, Microsoft Power BI, or Alteryx (e.g., Qasim et al., 2020; Raschke & Charron, 2021). However, an area often overlooked is technology that supports professional competencies such as documentation and communication.

This paper provides an instructional resource for Adobe Acrobat, software that helps develop professional competencies in documentation and communication. Lee et al. (2018) and a follow-up survey of accounting professionals we conducted both show that Adobe Acrobat software is widely used by accounting practitioners for document preparation and communication. We could find no instructional resources for accounting uses of Adobe Acrobat and thus believe this case fills an existing need for educational material that introduces students to Adobe Acrobat functions frequently used by accounting professionals.

#### **Competency-Based Frameworks**

Educators increasingly use competency-based frameworks to prepare students for the accounting profession (e.g., AICPA 2018; IMA 2019), with competencies defined as the "set of knowledge, skills, and abilities required for professional success in accounting" (Lawson et al., 2014, 296). A common theme of these frameworks is that accounting competencies include more than accounting content alone. Instead, they position technical accounting skills within a broader, integrated context (Butler 2021), which is consistent with the Pathways Commission (Behn, et al., 2012, 72) recommendation to integrate "technical knowledge, professional skills, and understanding of the accounting profession's broad societal purposes and commitments" into accounting education.

Collaboration and communication skills are specifically identified in both the AICPA 2018 framework (as professional competencies) and in the Institute of Management Accountants 2019 framework (under the broad competency of "leadership"). Regarding communication skills, the IMA expects accountants to be able to communicate effectively with both written and spoken words, and to use technology tools effectively in their communications (IMA, 2019). Thus, accounting students should be trained in the latest technology tools to enhance collaboration and communication skills, as well as technical skills.

Choosing specific technology tools to teach in the classroom is often problematic in an already-packed accounting curriculum. This problem is especially true in accounting information systems (AIS) classes, on which educators often rely to cover technology tools and software in accounting curricula (Kearns, 2014). AIS instructors face challenges in determining both the relevant topics and the tools to incorporate into their courses (Garnsey et al., 2019). Taking a tools perspective, Lee et al. (2018) unexpectedly found that accounting professionals use Adobe

Acrobat extensively when communicating and collaborating. Adobe Acrobat is document preparation software for creating and editing Portable Document Format (PDF) files. With Adobe Acrobat, users can view, edit, create, convert, manipulate, review, sign, and approve documents, making the PDF format suitable for workflow management and document review and approval processes

Lee et al. (2018) surveyed 190 accounting professionals and assessed their evaluations of 10 specific software tools used in the accounting profession. As expected, these accounting professionals reported Microsoft Excel as their most frequently used software tool, consistent with prior findings (Jackson & Cherrington, 2001; Ragland & Ramachandran, 2014; Rackliffe & Ragland, 2016). Numerous instructional materials to help students use Microsoft Excel more effectively have been developed (e.g., Hayes & Bee, 2008; Brown & Pike, 2010; Convery & Swaney, 2012; Willis, 2016; Frownfelter-Lohrke, 2017; Lee et al., 2019; Lee et al., 2020).

Unexpectedly, Adobe Acrobat ranked as the second most frequently used software tool. The Lee et al. (2018) survey also asked how much emphasis university accounting programs should place on teaching specific software tools; Adobe Acrobat was named second most frequently in these responses. On a 7-point Likert scale, Adobe Acrobat's mean rating (6.34) was close to the mean rating for Excel (6.92). The next most frequently used software tool was PowerPoint, with a mean rating of 4.27. Despite the frequency of Adobe Acrobat's use, we found no instructional cases or educational resources associated with Adobe Acrobat or other collaborative, communication, or documentation-oriented software tools.

#### **Follow-up Survey**

Adobe Acrobat's high ranking in the Lee et al. (2018) frequency of use survey motivated us to develop a follow-up survey to identify the specific Adobe functions that accounting professionals use most frequently and to identify specific ways in which learning Adobe functions will benefit students. This follow-up survey was sent to alumni working in an accounting role from one of the two universities represented in our study. There was no overlap between the accounting professionals who completed our survey and those surveyed by Lee et al. (2018). Before conducting the survey, we asked two students (who were not among the respondents completing the survey) who used Adobe Acrobat extensively during their summer internships to narrow a list of more than 25 functions available in Adobe Acrobat to the 10 functions they used in a meaningful way during their internships. Respondents rated these 10 functions.

We received responses from 286 accounting professionals in the follow-up survey, which asked them to rate how frequently they used Adobe Acrobat in their current accounting role, how useful they found Adobe Acrobat in their current accounting role, and which Adobe Acrobat functions they believe accounting graduates should be proficient with prior to entering the professional environment.

The follow-up survey results for frequency and usefulness, presented in Table 1, are consistent with Lee et al. (2018). They show that accounting professionals use Adobe Acrobat frequently (a mean of 74 on our 100-point scale) and regard it as useful (a mean of 1.85 on our 7-point, Likert-type scale).

#### Table 1

3

1 7	0 1	: 0	
Respondents	n	<i>Frequency</i> <sup>a</sup>	Usefulness <sup>b</sup>
Full sample	286	74.0	1.85
By specialization:			
Audit (Public)	163	74.2	1.88
Tax (Public)	57	78.9	1.68
Advisory (Public)	16	81.9	1.63
Other (Public) <sup>c</sup>	9	79.2	1.78
Corporate (Private)	41	61.9	2.02

Follow-up Survey: Means of Frequency and Usefulness

<sup>a</sup> Survey participants were asked to indicate on a 100-point scale how frequently they used Adobe Acrobat in their current accounting job, where 0 = Not at all and 100 =Very frequently.

<sup>b</sup> Survey participants were asked to indicate on a 7-point Likert scale how useful they found Adobe Acrobat in their current accounting job, where 1 = Extremely

useful and 7 = Extremely useless.

<sup>c</sup> Most of these individuals have a mix of audit/tax or audit/advisory experience.

We summarize the follow-up survey responses for the question asking with which Adobe functions recent accounting graduates should be proficient in Table 2.

respondents (87%) answered this question; a majority noted that they	use Adobe Acrobat in client communications
AIS Educator Journal Volume 16, Number 1, 2021	Hayes, Irving, Kerler, and Le

or Journal Volume	16, Number	r 1, 2021	
-------------------	------------	-----------	--

Table 2 Respondents' Ratings o	of Indivic	hual Adobe A	crobat F1	inctions	. Importa	nce <sup>a</sup>					
Respondents	п	Comment	Fill & Sign	Edit	Export	Create	Combine Files	Add Stamps	Organize Pages	Redact	Protect
Full sample	286	83.6	60.2	81.6	80.3	77.1	87.0	52.9	81.6	62.8	67.6
By specialization:											
Audit (Public)	163	87.0	55.8	80.1	80.5	73.9	88.7	55.0	84.1	60.7	63.6
Tax (Public)	57	85.4	67.6	90.6	74.9	81.8	91.5	63.0	87.2	60.8	76.5
Advisory (Public)	16	80.5	63.1	83.2	87.4	75.9	89.4	40.6	90.1	83.3	86.2
Other (Public) <sup>b</sup>	6	90.3	59.8	77.6	78.3	65.8	76.7	44.7	78.3	65.0	65.8
Corporate (Private)	41	67.2	66.2	75.2	84.9	86.4	75.1	37.2	61.2	65.6	64.2
<sup>a</sup> Respondents indicated on be proficient with Adobe A	a 100-poir Acrobat fun	nt scale the exter ctions, where 0 =	at to which t = Not at all	they felt the proficient	at accountir and $100 = V$	lg students s /erv proficie	hould nt.				
Before conducting the survey who used Adobe A	rey, we ask	ed two students	(who were I	not among	the respond	lents comple v a list of me	ting the				
25 functions available in A	dobe Acro	bat to the 10 fun	ctions they	used in a n	neaningful v	way during t	heir				
internships. Respondents r.	ated these	10 functions.		Cincerco The	000	ŭ e					
	VIII D ANDI	IN VDI INIDI N		I V CALK I							

These results suggest that respondents believe that accounting professionals' proficiency with multiple Adobe functions is important. Mean ratings on our 100-point scale for six of the 10 functions were greater than 75 and nine

of the 10 functions were greater than 60. To understand how students could benefit by gaining experience using Adobe Acrobat, we asked respondents, "What are the common ways in which you have used Adobe Acrobat? Please be as specific as possible." Most

and to annotate both client-prepared and firm-prepared documents. Uses included: tying workpapers to SEC filings, importing, exporting, reviewing, and signing audit workpapers and tax returns, preparing engagement letters, creating client proposals, and developing materials for client audit committees.

Respondents rated the Add Stamps function the lowest of all. Many respondents commented that they used the Watermark function more often than Add Stamps in their work. Thus, we decided to substitute the Watermark function for the Add Stamps function in the case.

Our survey results suggest that knowing how to annotate, manipulate, and transform documents is a skill accounting students should have when entering the profession. Thus, the Lee et al. (2018) results, our follow-up survey results, and the absence of educational resources for Adobe Acrobat motivated us to develop an instructional case that would introduce accounting students to Adobe Acrobat functions useful in the accounting profession.

#### The Case

The case asks respondents to assume the role of a staff auditor in Bluth Company, a fictitious public accounting firm. The case is presented in Appendix A. One of the founding partners of Bluth Company, Elisabeth Bluth, wants to expand the company's territory and asks the audit staff member (the respondent completing the case) to help prepare a request for proposal (RFP) presentation for a potential client in a neighboring city. Preparing the RFP will require the use of the following 10 Adobe Acrobat functions:

- 1. Combine Files
- 2. Comment
- 3. Create PDF
- 4. Edit PDF
- 5. Export PDF
- 6. Fill & Sign
- 7. Organize Pages
- 8. Protect
- 9. Redact
- 10. Watermark

After reading the case narrative, respondents follow 10 website links to consult video and text practice aids that explain how to use each function (one link per function). These training aids are provided by Adobe and require approximately five minutes each. The case then presents the instructions for preparing the RFP, which include information about files they will use to complete the case, including Adobe, Word, Excel, and PowerPoint files that can be delivered using a learning management system. The instructions conclude with eight steps for preparing, saving, and submitting the RFP.

Each of the eight steps requires the respondent to use one or more Adobe functions to accomplish the requested task. We recommend the instructor begin the case by reviewing the importance of Adobe Acrobat in accounting practice providing an overview of the case and its instructions. A case assignment introduction (in PowerPoint format) is available to instructors, as are teaching notes that include guidance for administering the case, solutions, a grading guide, and suggestions for expanding or adapting the case.

#### **Learning Objectives**

The case helps students understand and use Adobe Acrobat functions better. Specifically, the case requires respondents to demonstrate proficiency with the 10 functions viewed as most valuable by current accounting professionals surveyed for the development of this case. The case focuses on three categories of Bloom's Taxonomy of Education Objectives (Bloom, 1956) as revised by Anderson and Krathwahl (2001).

After completing the case, respondents should be able to *remember* and describe the 10 Adobe functions; they should be able to *understand* and *explain* when the 10 functions could be used in an accounting situation; and they should be able to *apply* the 10 functions across different accounting situations.

#### **Case Efficacy**

To assess whether students increased their knowledge of Adobe Acrobat functions after completing the case, we collected survey data on 139 accounting students from two East Coast universities during the first half of the Spring 2020 semester. These respondents were enrolled in an undergraduate accounting information systems course at one of the universities (52 respondents) and graduate-level accounting courses at both universities (87 respondents).

Each respondent signed an informed consent document, and the study was approved by the institutional review boards of both universities.

Respondents first completed a pre-test to establish their level of knowledge about the 10 Adobe Acrobat functions. Respondents then viewed a PowerPoint presentation summarizing the Lee et al. (2018) results and our findings from Tables 1 and 2. The presentation also described the importance of learning Adobe Acrobat functions. The assignment and due date were provided and respondents were given one week to complete the assignment outside of class. At the end of the week, the assignment was collected, respondents completed a post-test, and a second PowerPoint presentation was used to debrief them on the study. Both PowerPoint files are available in the set of instructor files for this case.

The pre- and post-tests we used to evaluate case efficacy are provided in Appendices B and C, respectively. We did not notify respondents that they would be completing either a pre-test or a post-test before they arrived in the class session. Classroom projectors were set to "AV mute," and respondents were required to put away all materials before completing the two tests. The instructor collected all case assignment printouts from respondents before distributing the post-test.

#### **Student Performance**

The results presented in Table 3 show that respondents completing the case significantly increased their awareness of each Adobe Acrobat function (p < 0.001 for all 10 functions). On average, respondents identified 0.98 functions correctly (zero functions at the median) on the pre-test. Conversely, of the 10 functions identically described on the post-test, respondents identified an average of 8.12 functions correctly. Thus, respondents significantly improved their level of knowledge for each of the 10 Adobe Acrobat functions.

On the post-test, respondents identified seven of the 10 functions at an accuracy rate of at least 80 percent and eight of the 10 functions at an accuracy rate of at least 70 percent. Respondents achieved an accuracy rate below 70 percent when using the Comment (56 percent) and Create PDF (47 percent) functions. The most common post-test response for Comment was Edit (a different Adobe function), and the most common post-test response for Create PDF was Import (which is not an Adobe function).

Function	Pre-test		Pos	t	
	М	SD	М	SD	_
Combine Files	0.06	0.23	0.94	0.25	29.55***
Comment	0.14	0.35	0.56	0.50	9.30***
Create PDF	0.01	0.09	0.47	0.50	10.85***
Edit PDF	0.22	0.42	0.99	0.09	21.48***
Export PDF	0.19	0.40	0.89	0.31	17.27***
Fill & Sign	0.22	0.41	0.96	0.20	19.87***
Organize Pages	0.02	0.15	0.80	0.40	21.93***
Protect	0.06	0.39	0.82	0.09	21.05***
Redact	0.01	0.09	0.73	0.44	19.15***
Watermark	0.09	0.28	0.96	0.20	30.46***

#### Table 3

Proficiency with Adobe Acrobat Functions, All Respondents, Graduate and Undergraduate (n = 139)

\*\*\*\**p* < .001.

The results presented in Table 4 for undergraduate student respondents show that they increased their level of knowledge (p < 0.01 for all 10 functions). At the mean, they identified 0.23 functions correctly (0 functions at the median) on the pre-test and 7.50 functions correctly (8 functions at the median) on the post-test. On the post-test, they identified five of the 10 functions with an accuracy rate of at least 80 percent and seven of the 10 functions with an accuracy rate of at least 70 percent. The three functions where undergraduate student respondents achieved an accuracy rate below 70 percent were Comment (56 percent), Create PDF (25 percent), and Redact (54 percent).

Function	Pre-test		Post-test		t
	М	SD	М	SD	
Combine Files	0.02	0.14	0.92	0.27	21.89***
Comment	0.00	0.00	0.56	0.50	$8.02^{***}$
Create PDF	0.00	0.00	0.25	0.44	$4.12^{***}$
Edit PDF	0.10	0.30	0.98	0.14	19.77***
Export PDF	0.02	0.14	0.85	0.36	15.61***
Fill & Sign	0.06	0.24	0.96	0.19	21.90***
Organize Pages	0.00	0.00	0.75	0.44	12.37***
Protect	0.02	0.14	0.77	0.43	12.37***
Redact	0.00	0.00	0.54	0.50	7.71***
Watermark	0.02	0.14	0.92	0.27	21.90***

Table 4	
Proficiency with Adobe Acrobat Functions,	Undergraduate Students $(n = 52)$

p < .001.

Table 5 shows that, consistent with the findings for undergraduate student respondents, graduate student respondents had a significant increase in knowledge of all 10 Adobe functions (p < 0.001 for all 10 functions). At the mean, they identified 1.43 functions correctly on the pre-test and 8.48 functions on the post-test. On the post-test, they identified eight functions with an accuracy of at least 80 percent. The two functions on which they achieved a lower accuracy rate were Comment (56 percent) and Create PDF (60 percent).

#### Table 5

Proficiency with Adobe Acrobat Functions, Graduate Students (n = 87)

Function	Pre-test		Post-test		t
	М	SD	М	SD	_
Combine Files	0.08	0.27	0.94	0.23	21.22***
Comment	0.22	0.42	0.56	0.50	5.89***
Create PDF	0.01	0.11	0.60	0.49	$11.04^{***}$
Edit PDF	0.30	0.46	1.00	0.00	14.21***
Export PDF	0.30	0.46	0.92	0.27	11.32***
Fill & Sign	0.31	0.47	0.95	0.21	12.46***
Organize Pages	0.03	0.18	0.83	0.38	18.16***
Protect	0.08	0.27	0.85	0.36	16.97***
Redact	0.01	0.11	0.85	0.36	$21.18^{***}$
Watermark	0.13	0.33	0.98	0.15	22.13***
****	-				-

p < .001.

Tables 6 and 7 show comparisons of respondent performance with prior Adobe experience. Students (graduate and undergraduate) with (Table 7) and without (Table 6) prior Adobe experience gained knowledge of all 10 Adobe functions (p < 0.001). This knowledge gain suggests that these Adobe exercises are beneficial to both groups.

#### Table 6

Proficiency with Adobe Acrobat Functions, Respondents with No Prior Adobe Experience $(n = 79)$					
T TOTICIENCY WITH AUDDE ACTODUL FUNCTIONS. REMONDENTS WITH NOT FIOT AUDDE EXDEPTENCE ( $n = 79$ )	Proficiance with Adobe Acrobat	Eurotions P	agnondants with	No Drior Adob	a Ernarianaa (n - 70)
	Ι ΤΟΠΕΙΕΝΕΥ WIIN ΑΠΟDE ΑΕΤΟDUΙ	$T$ unchors, $\Lambda$	espondenis wiin i	NO I 1101 AUOD	e Experience $(n - 79)$

Function	Pre-test		Pos	t	
	М	SD	М	SD	_
Combine Files	0.01	0.11	0.95	0.22	33.98***
Comment	0.03	0.16	0.52	0.50	8.31***
Create PDF	0.01	0.11	0.38	0.49	6.73***
Edit PDF	0.09	0.29	0.99	0.11	26.31***
Export PDF	0.10	0.30	0.87	0.34	16.26***
Fill & Sign	0.09	0.29	0.95	0.22	22.00***
Organize Pages	0.01	0.11	0.77	0.42	15.69***
Protect	0.01	0.11	0.84	0.37	19.03***
Redact	0.00	0.00	0.68	0.47	12.98***
Watermark	0.01	0.11	0.95	0.22	33.98***
$p^{***} p < .001.$					

## Table 7

Proficiency with Adobe Acrobat Functions, Respondents with Prior Adobe Experience (n = 87)

Function	Pre-test		Post-test		t
	М	SD	М	SD	
Combine Files	0.12	0.32	0.92	0.28	13.98***
Comment	0.28	0.45	0.62	0.49	4.76***
Create PDF	0.00	0.00	0.58	0.50	9.09***
Edit PDF	0.40	0.49	1.00	0.00	9.41***
Export PDF	0.32	0.47	0.92	0.28	8.82***
Fill & Sign	0.38	0.49	0.97	0.18	9.09***
Organize Pages	0.03	0.18	0.83	0.38	15.36***
Protect	0.12	0.32	0.80	0.40	$11.28^{***}$
Redact	0.02	0.13	0.80	0.40	14.61***
Watermark	0.18	0.39	0.97	0.18	14.61***

\*\*\*\**p* < .001.

#### **Undergraduate Versus Graduate Students**

To assess whether the case benefits students regardless of academic level, we divided respondents into two subsamples: undergraduate students and graduate students as shown in Tables 8 and 9. Table 8 compares undergraduate student pre-test scores to graduate student pre-test scores and serves as a comparison of baseline levels of knowledge between the two groups. Graduate student respondents had a significantly higher baseline level of knowledge than undergraduate student respondents on eight of the 10 functions.

#### Table 8

Pre-test Proficiency with Adobe Acrobat Functions, Undergraduate vs. Graduate Students

Function	Undergraduate	Students $(n = 52)$	Graduate	Students $(n = 87)$	t
	M	SD	М	SD	-
Combine Files	0.02	0.14	0.08	0.27	$1.75^{*}$
Comment	0.00	0.00	0.22	0.42	$4.90^{***}$
Create PDF	0.00	0.00	0.01	0.11	0.77
Edit PDF	0.10	0.30	0.30	0.46	3.15***
Export PDF	0.02	0.14	0.30	0.46	$5.28^{***}$
Fill & Sign	0.06	0.24	0.31	0.47	$4.24^{***}$
Organize Pages	0.00	0.00	0.03	0.18	$1.75^{*}$
Protect	0.02	0.14	0.08	0.27	$1.75^{*}$
Redact	0.00	0.00	0.01	0.11	0.77
Watermark	0.02	0.14	0.13	0.33	2.64***

 $p^* < .10, p^* < .001.$ 

Table 9 shows that completing the case helps undergraduate students catch up with the graduate students for eight of the 10 functions. Interestingly, the two functions for which the pre-test showed no significant difference between undergraduate and graduate student respondents (Create PDF and Redact) were the only items for which the post-test results show a significant difference. We suspect that the graduate students might have focused more on these functions when completing the case assignment.

#### Table 9

Post-test Proficiency with Adobe Acrobat Functions, Undergraduate vs. Graduate Students

Function	Undergraduate Students $(n = 52)$		Graduate Students $(n = 87)$		t
	М	SD	М	SD	
Combine Files	0.92	0.27	0.94	0.23	0.49
Comment	0.56	0.50	0.56	0.50	0.06
Create PDF	0.25	0.44	0.60	0.49	4.32***
Edit PDF	0.98	0.14	1.00	0.00	1.00
Export PDF	0.85	0.36	0.92	0.27	1.26
Fill & Sign	0.96	0.19	0.95	0.21	0.21
Organize Pages	0.75	0.44	0.83	0.38	1.06
Protect	0.77	0.43	0.85	0.36	1.16
Redact	0.54	0.50	0.85	0.36	3.92***
Watermark	0.92	0.27	0.98	0.15	1.33

p < .001.

Overall, analysis indicates that the case significantly improves students' knowledge of all 10 Adobe Acrobat functions, irrespective of academic level. This evidence suggests that the case assignment is an appropriate and valuable assignment for both undergraduate and graduate students.

#### Experience with Adobe Acrobat During Prior Internship Versus No Prior Experience

Ninety-five respondents (68 percent) had completed an accounting internship, including 72 graduate students and 23 undergraduate students. We expected respondents with accounting internship experience to be more skillful users of Adobe Acrobat functions than other respondents, especially if their internships required them to use Adobe Acrobat. In the pre-test instrument, respondents who indicated prior internship experience also indicated the extent to which they used Adobe Acrobat during their internships on a scale from zero (not at all) to 100 (all the time).

To assess whether the case benefits students regardless of prior experience with Adobe Acrobat, we divided the respondents (N=139) into two subsamples: respondents with prior Adobe experience (N=60), defined as students with prior internship experience that had used Adobe to some extent and respondents with no prior Adobe experience (N=79), defined as all other students. We present results for this partitioning in Tables 10 and 11. Table 10 compares the pre-test scores of respondents with no prior Adobe experience to those with prior Adobe experience.

#### Table 10

Pre-test Proficiency with Adobe Acrobat Functions, No Experience vs. Experienced

3 5		, I	1		
Function	No Experience Students $(n = 79)$		Experienced Students $(n = 60)$		t
	M	SD	М	SD	
Combine Files	0.01	0.11	0.12	0.32	2.38**
Comment	0.03	0.16	0.28	0.45	4.21***
Create PDF	0.01	0.11	0.00	0.00	0.87
Edit PDF	0.09	0.29	0.40	0.49	4.36***
Export PDF	0.10	0.30	0.32	0.47	3.10***
Fill & Sign	0.09	0.29	0.38	0.49	4.15***
Organize Pages	0.01	0.11	0.03	0.18	0.83
Protect	0.01	0.11	0.12	0.32	$2.38^{**}$
Redact	0.00	0.00	0.02	0.13	1.00
Watermark	0.01	0.11	0.18	0.39	3.29***

p < .05, p < .001.

The results show that respondents with prior Adobe experience had significantly higher knowledge of seven of the 10 functions. Five of those differences were highly significant.

Table 11 shows that respondents with no Adobe experience catch up to respondents with Adobe experience for eight of the 10 functions.

Function	No Experience	No Experience Students $(n = 79)$ Experience		Students $(n = 60)$	t
	М	SD	М	SD	
Combine Files	0.95	0.22	0.92	0.28	0.77
Comment	0.52	0.50	0.62	0.49	1.15
Create PDF	0.38	0.49	0.58	0.50	$2.42^{***}$
Edit PDF	0.99	0.11	1.00	0.00	0.87
Export PDF	0.87	0.34	0.92	0.28	0.81
Fill & Sign	0.95	0.22	0.97	0.18	0.49
Organize Pages	0.77	0.42	0.83	0.38	0.89
Protect	0.84	0.37	0.80	0.40	0.54
Redact	0.68	0.47	0.80	0.40	$1.57^{*}$
Watermark	0.95	0.22	0.97	0.18	0.49

Post-test Proficiency with Adobe Acrobat Functions, No Experience vs. Experienced

 $p^* < .10, p^{***} < .001.$ 

Similar to the results comparing undergraduate and graduate students in the previous section, two of the three functions for which there were insignificant differences between respondents with and without Adobe experience in the pre-test (Create PDF and Redact) show significant post-test differences. Again, since respondents with prior Adobe experience were at least knowledgeable about these functions, they might have focused more on these functions when completing the assignment.

The results for respondents with no prior Adobe experience show a significant increase in respondent level of knowledge for each of the 10 Adobe functions (p < 0.001). At the mean, respondents with no prior Adobe experience correctly identified 0.37 functions (no functions at the median) on the pre-test and 7.90 functions (8 functions at the median) on the post-test. These respondents identified six functions with an accuracy rate of at least 80 percent and seven with an accuracy rate of at least 70 percent. The three functions for which respondents with no prior Adobe experience achieved an accuracy rate below 70 percent were Comment (52 percent), Create PDF (38 percent), and Redact (68 percent). For the subsample of respondents with prior Adobe experience, the results also show a significant increase in respondents' level of knowledge for each of the 10 functions (p < 0.01 for all 10 functions). At the mean, respondents with prior Adobe experience correctly identified 1.78 functions (2 functions at the median) on the pre-test and 8.40 functions (9 at the median) on the post-test, they also identified eight functions with at least an 80 percent accuracy rate, with Comment (62 percent) and Create PDF (58 percent) being the exceptions.

Overall, our analysis indicates the case significantly improves students' knowledge of all 10 Adobe Acrobat functions, irrespective of prior Adobe experience. This evidence suggests that the case assignment can benefit students with or without prior Adobe Acrobat experience.

#### **Respondents' Perceived Learning, Enjoyment, and Feedback**

In the post-test, we asked respondents whether they learned from and enjoyed the case. A 7-point Likert-type scale was used, with 1 representing "strongly disagree" and 7 representing "strongly agree." When respondents answered the statement, "I learned more about Adobe by completing this assignment," their mean score was 6.24, and 137 of 139 respondents (99%) provided a rating from 5 to 7, a strong indication that they learned from this assignment. To test this, we re-coded the responses for subsequent analysis, with 1 equaling agree (responses 5 to 7) and 0 equaling disagree or neutral (responses 1 to 4). A chi-square test statistic (chi-square = 131.1, p < 0.001) provided a statistically strong indication that they learned more about Adobe by completing the case. When respondents answered the statement, "I enjoyed this assignment," their mean score was 5.25 and 103 of 139 respondents (74%) provided a rating from 5 to 7 (chi-square = 32.3, p < 0.001), indicating that they also significantly enjoyed the assignment. Respondents' perceptions clearly indicate that they enjoyed working on the case and believe it improved their understanding of the Adobe Acrobat functions. Additionally, respondents' perceived learning is validated by their actual performance on the case and their pre-test to post-test improvements.

Table 11

In the post-test, we asked respondents for feedback on the assignment. Of the 139 respondents who completed both the pre-test and post-test, 42 respondents (30 percent) provided feedback about the case assignment; we include 17 of these responses in Table 12.

#### Table 12

Selected	<b>Comments</b>	from	Res	pondents
----------	-----------------	------	-----	----------

Undergraduate Students	Graduate Students
I used this tool every single day in my previous summer internship with the DoD (Department of Defense).	Even for how often I used it last summer, very good refresher/videos on how to properly do certain things.
Directions were clear and easy to follow.	It was a nice refresher from this summer. I learned a few more things and definitely think it was worthwhile.
Simple, useful skills that students should know.	This would be super helpful for accounting undergrads during their senior year before internships!
This was very helpful.	Pretty simple tools - very useful.
It was a good way to familiarize myself with the different things Adobe can do.	I learned a lot.
The assignment was straightforward. There was a small learning curve, after which everything becomes easy.	Good refresher!
Useful, all the stuff could be looked up and done with some common sense.	Reminded me of last busy season!
	It was relevant to my internship, so it was good to brush up on.
	This has been my favorite assignment so far for this class. Very useful/helpful.
	I did similar things in my internship, so I feel that this was a good assignment for future associates.

Overall, the comments were positive. Of the 42 comments, four respondents provided constructive criticism. Two respondents commented that the case was insufficiently challenging (one of these comments was "If the case was [*sic*] more in-depth, that would be more helpful"). In addition, two respondents commented on having difficulty with the Watermark functions (one of these comments was, "Include a tutorial on how to do opacity.").

#### Conclusion

Accreditation and accounting standards groups recognize professional competencies such as communication and collaboration skills as essential components of accounting education. The results from two separate surveys of current accounting professionals confirm the importance of these competencies and indicate that Adobe Acrobat is a crucial technology for accounting students entering the profession.

The results of this study show that respondents significantly increased their level of knowledge with each of the Adobe Acrobat functions identified as particularly valuable by the surveyed professionals. Results from post-test follow-up questions indicate that respondents learned from and enjoyed the case. Respondents' comments reveal that it was straightforward, helpful, and a favorite assignment. Thus, this case provides a tool for improving accounting students' professional communication and collaboration competencies using Adobe Acrobat software.

#### References

- American Institute of Certified Public Accountants (AICPA). (2018). AICPA pre-certification core competency framework. https://www.aicpa.org/interestareas/accountingeducation/resources/corecompetency.html.
- Anderson, L. W. & Krathwohl, D. R. (Eds.) (2001) A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Longman.
- Association to Advance Collegiate Schools of Business International (AACSB). (2018). Eligibility procedures and accreditation standards for accounting accreditation. <u>https://www.aacsb.edu/-/media/aacsb/docs/accreditation/accounting/standards-and-tables/2018-accounting-standards.ashx</u>
- Association to Advance Collegiate Schools of Business International (AACSB). (2020). Guiding principles and standards for business school accreditation. <u>https://www.aacsb.edu/-/media/aacsb/docs/accreditation/business/standards-and-tables/proposed%202020%20aacsb%20business%20accreditation%20standards%20-%20final%20draft%20-%20april%206%202020.ashx</u>
- Behn, B., Ezzell, W. Murphy, L, Rayburn, J. Stith, M. & Strawser, J. (2012). The Pathways Commission on Accounting Higher Education: Charting a national strategy for the next generation of accountants, 27(3), 595-600. <u>https://doi.org/10.2308/iace-10300</u>
- Bloom, B. S., Englehart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *The taxonomy of educational objectives, handbook I: The cognitive domain*. David McKay Co., Inc.
- Brown, W. C., & Pike, B. (2010). Excel competency for the professional accountant: Advanced applications, controls, and audit add-ins. *AIS Educator Journal*. 5(1), 25–45. <u>https://doi.org/10.3194/1935-8156-5.1.25</u>
- Butler, M. G., Church, K. S., King, G. H., & Spencer, A. W. (2021). Do your students know what they don't know? An accounting competencies strategy. *Issues in Accounting Education*, 36(4), 207–230. <u>https://doi.org/10.2308/ISSUES-19-083</u>
- Chen, J., Damtew, D., Banatte, J., & Mapp, J. (2009). Information technology competencies expected in undergraduate accounting graduates. *Research in Higher Education Journal*, *3*, 1–7.
- Convery, S. P., & Swaney, A. M. (2012). Analyzing business issues—with excel: The case of superior log cabins, Inc. *Issues in Accounting Education*, 27(1), 141–156. https://doi.org/10.2308/iace-50095
- Frownfelter-Lohrke, C. (2017). Teaching good excel design and skills: A three spreadsheet assignment project. *Journal of Accounting Education*, 39, 68–83. https://doi.org/10.1016/j.jaccedu.2016.12.001
- Garnsey, M., Doganaksoy, N., & Phelan, E. (2019). Topics for the accounting information systems course: A dual perspective approach from educators and employers. AIS Educator Journal. 14(1), 36–55. https://doi.org/10.3194/1935-8156-14.1.36
- Hayes, D., & Bee. S. (2008). Powering up your grade book: A spreadsheet designed to teach students excel skills and to make assigning students' grades easier. *AIS Educator Journal*, 3(1), 15–33. https://doi.org/10.3194/aise.2008.3.1.15
- Institute of Management Accountants (IMA). (2019). IMA management accounting competencies framework. <u>https://www.imanet.org/insights-and-trends/the-future-of-management-accounting/ima-management-accounting-competency-framework</u>
- Jackson, R. B., & Cherrington, J. O. (2001). IT instruction methodology and minimum competency for accounting students. Journal of Information Systems Education, 12(4), 213–221.
- Kearns, G. S. (2014). The importance of accounting information systems in the accounting curricula: A CPA perspective. *AIS Educator Journal*, 9(1), 24–40. <u>https://doi.org/10.3194/1935-8156-9.1.24</u>
- Lawson, R. A., Blocher, E. J., Brewer, P. C., Cokins, G., Sorensen, J. E., Stout, D. E., Sundem, G. L., Wolcott, S. K., & Wouters, M. J. (2014). Focusing accounting curricula on students' long-run careers: Recommendations for an integrated competencybased framework for accounting education. *Issues in Accounting Education*, 29(2), 295–317. <u>https://doi.org/10.2308/iace-50673</u>
- Lawson, R. A., Blocher, E. J., Brewer, P. C., Morris, J. T., Stocks, K. D., Sorensen, J. E., Stout, D. E., & Wouters, M. J. F. (2015). Thoughts on competency integration in accounting education. *Issues in Accounting Education*, 30(3), 149–171. <u>https://doi.org/10.2308/iace-51021</u>
- Lee, L., Kerler, W., & Ivancevich, D. (2018). Beyond Excel: Software tools and the accounting curriculum. *AIS Educator Journal*, *13*(1), 44–61. <u>https://doi.org/10.3194/1935-8156-13.1.44</u>
- Lee, L., Shifflett, E., & Downen, T. (2019). Teaching Excel shortcuts: A visualization and game-based approach. *Journal of* Accounting Education, 48, 22–32. <u>https://doi.org/10.1016/j.jaccedu.2019.06.004</u>
- Lee, L., Hansen, V., & Brink, W. (2020). Tax retirement savings decisions using an excel spreadsheet approach. *Issues in Accounting Education*, 35(3), 39–55. <u>https://doi.org/10.2308/ISSUES-19-013</u>
- Qasim, A., Issa, H., El Refae G. A., & Sannella, A. J. (2020). A model to integrate data analytics in the undergraduate accounting curriculum. *Journal of Emerging Technologies in Accounting* 17(2), 31–44. <u>https://doi.org/10.2308/JETA-2020-001</u>
- Rackliffe, U. R., & Ragland, L. (2016). Excel in the accounting curriculum: Perceptions from accounting professors. Accounting Education, 25(2), 139–166. <u>https://doi.org/10.1080/09639284.2015.1126791</u>
- Ragland, L., & Ramachandran, U. (2014). Towards an understanding of Excel functional skills needed for a career in public accounting: Perceptions from public accountants and accounting students. *Journal of Accounting Education*, 32(2), 113– 129. <u>https://doi.org/10.1016/j.jaccedu.2014.03.002</u>
- Raschke, R. L., & Charron, K. F. (2021). Review of data analytic teaching cases, have we covered enough? *Journal of Emerging Technologies in Accounting*, 18(2), 247–255. <u>https://doi.org/10.2308/JETA-2020-036</u>
- Rebele, J. E., & St. Pierre, E. K. (2015). Stagnation in accounting education research. *Journal of Accounting Education*, 33(2), 128–137. <u>https://doi.org/10.1016/j.jaccedu.2015.04.003</u>

- Sledgianowski, D., Gomaa, M., & Tan, C. (2017). Toward integration of big data, technology and information systems competencies into the accounting curriculum. *Journal of Accounting Education*, 38, 81–93. <u>https://doi.org/10.1016/j.jaccedu.2016.12.008</u>
- Welch, O.J., Madison, T., & Welch, S. (2010). Accounting professionals' value assessment of entry level IT skills and topics: A comparison of the difference between CPA firms and industry/government organizations. *Issues in Information Systems*, 11(1), 211–215. <u>https://doi.org/10.48009/1\_iis\_2010\_211-215</u>
- Willis, V. F. (2016). A model for teaching technology: Using Excel in an accounting information systems course. *Journal of Accounting Education*, 36, 87–99. <u>https://doi.org/10.1016/j.jaccedu.2016.05.002</u>
- Yu, S., Churyk, N.T., & Chang, A. (2013). Are students ready for the their future accounting careers? Insights from observed perception gaps among employers, interns, and alumni. *Global Perspectives on Accounting Education*, 10, 1–15.

### **Appendix A: Bluth Company Case Assignment**

#### Narrative

Elisabeth Bluth, CPA, and Jack Bluth, CPA, are the founding partners of Bluth Company. Bluth Company is a public accounting firm doing business in Newport Beach, California, and specializing in audit and tax work for closely held businesses. Elisabeth Bluth has a staff of auditors who help her do all of the work for the firm's audit clients, while Jack Bluth has a staff of tax accountants who help him do all of the work for the firm's tax clients.

Recently, Elisabeth Bluth has considered expanding Bluth Company's geographic territory to increase audit revenues. She has decided to bid on an audit engagement for Bateman Cabanas, a closely held company in neighboring Long Beach, California. While it would result in a bit more travel, Elisabeth is encouraged by the fact that Bateman has grown rapidly and is looking for an audit firm that can provide expertise and first-rate customer service at a competitive price.

Elisabeth is scheduled to meet with Bateman's owner next week and she needs to prepare a request for proposal (RFP) package for the meeting. She has invited you, one of her staff auditors, to assist her in preparing the RFP package and to accompany her to next week's meeting. You will use Adobe Acrobat to help Elisabeth create the materials for this package.

Below you will find additional information regarding: (1) the resources available to help you learn how to use certain Adobe Acrobat functions and (2) the step-by-step instructions on how to prepare the RFP package.

#### Resources

Before you begin, you should first consult the following video and text practice aids related to the Adobe Acrobat functions you will use (listed alphabetically).

Combine Files: https://helpx.adobe.com/acrobat/how-to/combine-files-into-pdf.html Comment: https://helpx.adobe.com/acrobat/using/commenting-pdfs.html Create PDF: https://helpx.adobe.com/acrobat/how-to/create-pdf-files-word-excel-website.html Edit PDF: https://helpx.adobe.com/acrobat/how-to/edit-text-images-pdf-files.html Export PDF: https://helpx.adobe.com/acrobat/using/exporting-pdfs-file-formats.html Fill & Sign: https://helpx.adobe.com/acrobat/how-to/fill-and-sign-pdf-forms.html Organize Pages: https://helpx.adobe.com/acrobat/using/manipulating-deleting-renumbering-pdf-pages.html Protect: https://helpx.adobe.com/acrobat/how-to/password-protect-pdf.html Redact: https://helpx.adobe.com/acrobat/how-to/redact-pdf.html Watermark: https://helpx.adobe.com/acrobat/using/add-watermarks-pdfs.html

#### Instructions

In addition to the narrative, resources, and instructions provided in this file (Adobe Bluth Company Case Assignment.docx), Elisabeth initially provides you with three additional files that you will revise to produce the RFP package:

- Arnett Boat and Marina Product financial statements.pdf
- Bateman Cabanas proposed audit fees and time budget.pdf 2.
- 3. Bateman Cabanas engagement letter.pdf

As you work through the assignment, use the Adobe Functions and Time.docx file to document the Adobe functions you use to complete each step of the assignment. Also track your time and indicate the number of minutes it took you to complete the assignment. When finished, save the file as "8 <YourLastName> Adobe Functions and Time.docx" and upload it to the learning management system. Print out the "8 <YourLastName> Adobe Functions and Time.docx" file to turn in.

Step 1: In preparing to meet the owner of Bateman Cabanas, Elisabeth retrieves and reviews the historical financial statements of one of her current Newport Beach clients, Arnett Boat and Marina Products. Arnett is similar in size and product offerings to Bateman. Elisabeth obtains permission from Arnett's owner to include a redacted version of their financial statements as part of the RFP package in order to demonstrate her industry expertise and help support her proposed budget and fee schedule. (Please note: Despite permission from Arnett, this might still create privacy concerns. In practice, it is more likely Arnett's numbers would also be revised to protect Arnett's identity. For purposes of this case and this step we want you to focus on learning how to redact information in Adobe and therefore we skip the step of revising all of Arnett's numbers.) She asks you to complete the following tasks to prepare the financial statements for the RFP package:

- Reorder the Arnett financial statements, beginning with the income statement and ending with the statement of cash flows.
- Redact all references to Arnett Boat and Marina Products within the financial statements.
- Save the PDF file as "1 Arnett historical financial statements".

Step 2: Using the knowledge gained from her review of Arnett's historical financial statements, Elisabeth develops a proposed audit fee schedule and a proposed time budget for Bateman. She asks you to complete the following tasks to prepare the fee schedule and time budget for the RFP package:

Using text boxes, add a comment to the proposed audit fee schedule to indicate that "The fee and time estimates are subject to change if significant accounting issues arise at a quarter-end or year-end." Place this message below the estimated audit fee ("Total Fees").

- Mark the proposed audit fee schedule page and the proposed time budget page as a "DRAFT" with the word "DRAFT" being rotated 45°, set at 25% Opacity and scaled relative to the target page at 80%.
- Save the PDF file as "2\_Bateman proposed audit fees and time budget".

**Step 3:** After completing the proposed fee schedule and time budget, Elisabeth sends you an audit engagement letter template. She asks you to complete the following tasks to tailor the engagement letter for Bateman and prepare it for the RFP package:

- Complete each of the fields surrounded by the "<>" bracket.
- Sign your name using the Fill & Sign function on the line above "Signed on behalf of <AUDIT FIRM NAME>".
- Mark each page of the engagement letter as a "DRAFT" with the word "DRAFT" being rotated 45°, set at 25% Opacity and scaled relative to the target page at 80%.
- Save the PDF file as "3\_Bateman proposed engagement letter".

**Step 4**: To give the RFP package a professional look, Elisabeth asks you to create a cover page (new file) with the Bluth Company logo, which is available at: <u>http://www.davidjackson.info/wp-content/uploads/2014/05/tumblr\_lrzceqsLeT1qgavi8o1\_500.jpg</u>

- Create the new file with the company logo. Remove any extraneous text and resize the logo to fit the entire page.
- Save the PDF file as "4\_Bluth Company logo"

**Step 5:** Elisabeth asks you to (i) export the proposed engagement letter PDF file to Microsoft Word and (ii) export the proposed fee schedule and time budget PDF file to Microsoft PowerPoint.

• Save the Word file as "5\_Bateman RFP Word" and the PowerPoint file as "6\_Bateman RFP PowerPoint".

**Step 6:** Elisabeth asks you to finalize the RFP package by combining the following four files {1\_Arnett historical financial statements.pdf, 4\_Bluth Company logo.pdf, 5\_Bateman RFP Word.docx, 6\_Bateman RFP PowerPoint.pptx} into a single PDF file, and then organize the pages in the following order.

- 1. PDF logo (1 page)
- 2. Word proposed engagement letter (3 pages)
- 3. PowerPoint proposed fee schedule (1 page)
- 4. PDF financial statements (3 pages)
- 5. PowerPoint proposed time budget (1 page)
- Save the PDF file as "7\_<YourLastName>\_Bateman RFP package-final".

Step 7: Elisabeth asks you to ensure the confidentiality and file security of the RFP package by adding a password.

• Add the password "BatemanRFP" and save the file using its existing filename (take care to follow the exact capitalization—i.e., capitalize the letters B, R, F, and P—or I will not be able to open your file).

**Final Step:** After you have completed the assignment, save your version of the "Adobe Functions and Time.docx" file as "8\_YourLastName>\_Adobe Functions and Time.docx".Then, upload the two files you have created to the learning management system, as follows.

- 1. 7\_<YourLastName>\_Bateman RFP package-final.pdf
- 2. 8\_<YourLastName>\_Adobe Functions and Time.docx
- Print out and submit hard copy: 8\_<YourLastName>\_Adobe Functions and Time.docx

This assignment is due on [insert due date and time] and is worth 25 points.

#### **Appendix B: Pre-test**

#### Please answer items 1-14 below.

1. Have you completed one or more internships? (circle one) Yes No

Do not respond to items 2 and 3 if you have not completed an internship.

2. Type of firm where you completed your internship (circle all that apply):

Public accounting	Other accounting	Non-accounting
	<i>0</i>	

3. To what extent did you use Adobe Acrobat during your internship(s)? \_\_\_\_\_\_\_\_\_\_(Answer using a scale from 0-100, where 0 = not at all and 100 = all the time)

For items 4-13 below, fill in the boxes below with name of the Adobe Acrobat function that you would use in each of the following scenarios:

		Name the
	Scenario	would use
4.	Incorporate two or more files (Adobe and non-Adobe) into a single file	
5.	Add information in the margins of an existing Adobe file	
6.	Convert a non-Adobe file (e.g., Word, Excel or jpg picture) into an Adobe file	
7.	Make changes and add updates to an existing Adobe file	
8.	Convert an existing Adobe file into a non-Adobe file (e.g., Word or Excel)	
9.	Add a signature to an existing Adobe file	
10.	Rearrange the order of the pages in an existing Adobe file	
11.	Add a password to an existing Adobe file	
12.	Obscure secret or sensitive information in an existing Adobe file	
13.	Add labels such as "Confidential" and "Draft" to an existing Adobe file	

For item 14, answer using a scale from 0-100 (where 0 = not at all proficient and 100 = very proficient):

14. Overall, how proficient do you believe you are with Adobe Acrobat functions?

### Appendix C: Post-test

For items 1-10 below, fill in the boxes below with name of the Adobe Acrobat function that you would use in each of the following scenarios:

	Scenario	Name the function you would use
1.	Incorporate two or more files (Adobe and non-Adobe) into a single file	
2.	Add information in the margins of an existing Adobe file	
3.	Convert a non-Adobe file (e.g., Word, Excel or jpg picture) into an Adobe file	
4.	Make changes and add updates to an existing Adobe file	
5.	Convert an existing Adobe file into a non-Adobe file (e.g., Word or Excel)	
6.	Add a signature to an existing Adobe file	
7.	Rearrange the order of the pages in an existing Adobe file	
8.	Add a password to an existing Adobe file	
9.	Obscure secret or sensitive information in an existing Adobe file	
10.	Add labels such as "Confidential" and "Draft" to an existing Adobe file	

For item 11, answer using a scale from 0-100 (where 0 = not at all proficient and 100 = very proficient):

11. Overall, how proficient do you believe you are with Adobe Acrobat functions?

For items 12 and 13, circle the answer that best describes your experience.

12. I learned more about Adobe by completing this assignment.

Strongly	Somewhat				Somewhat	Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

13. I enjoyed this assignment.

Strongly	Somewhat				Somewhat	Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
(1)	(2)	(3)	(4)	(5)	(6)	(7)

14. Include below any comments you wish to share about this assignment.



# AIS Educator Journal Editorial Board

#### **Editors-in-Chief**

Kimberly Swanson Church, University of Missouri – Kansas City Gary P. Schneider, California State University, Monterey Bay

#### **Associate Editors**

Del DeVries, Belmont University Dawna Drum, Western Washington University Betsy Haywood-Sullivan, Rider University Gail Hoover King, Washburn University Lorraine Lee, University of North Carolina Wilmington Conni Lehmann, University of Houston – Clear Lake Brad Schafer, Kennesaw State University

#### **Senior Reviewers**

Kel-Ann Eyler, Georgia College & State University Kurt Fanning, Grand Valley State University Cynthia Frownfelter-Lohrke, Samford University Sonia Gantman, Bentley University Margaret (Peggy) Garnsey, Siena College Bonnie Klamm, North Dakota State University Marcia Watson, University of North Carolina Charlotte Skip White, University of Delaware

#### **Past Editors-in-Chief**

2004-2007 Arlene Savage 2007-2009 Stacy Kovar 2009-2012 David R. Fordham 2012-2015 William G. Heninger 2016-2018 Ronald J. Daigle and David C. Hayes 2018-2019 Chelley M. Vician 2019-2020 Chelley M. Vician and Gary P. Schneider

#### **Editorial Assistant**

Abby Bensen, University of St. Thomas

#### **Ad Hoc Reviewers**

A list of ad hoc reviewers for the most recent three years is published in the annual editor report.

All materials contained herein are copyright AIS Educator Association, all rights reserved. Faculty members may reproduce any contents of the AIS Educator Journal for use in individual courses of instruction only if the source and the AIS Educator Association copyright are included in any such reproduction. Apply in writing to the Editor for permission to reproduce any AIS Educator Journal content for other uses, including, but not limited to, publication in textbooks and books of readings for general distribution.

The AIS Educator Journal is published by the AIS Educator Association:

President: Ann O'Brien, University of Wisconsin

Vice President and President Elect: Cynthia Frownfelter-Lohrke, Samford University

Secretary: Cheryl L. Dunn, Grand Valley State University

Treasurer: Kristian Mortenson, University of St. Thomas

Past-President: Dawna Drum, Western Washington University