WRITTEN AND COMPUTER-MEDIATED ACCOUNTING COMMUNICATION SKILLS: AN EMPLOYER PERSPECTIVE

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Communication skills are a fundamental personal competency for a successful career in accounting. What is not so obvious is the specific written communication skill set employers look for and the extent those skills are computer mediated. Using survey research, this article explores the particular skills employers desire and their satisfaction level with new hires. Results indicate that basic writing mechanics are the skills in highest demand, followed by effective documentation. Except for email proficiency, employers do not consider computer-mediated communication competencies as important as traditional business communication skills. The article concludes with curricular implications for accounting communication.

Keywords: *computer-mediated communication; email; instant messaging; microblogging; social networking; written communication skills*

THERE IS UNIVERSAL AGREEMENT that communication skills are core competencies required of accounting professionals throughout the world (Albrecht & Sack, 2000; American Institute of Certified Public Accountants [AICPA], 2005; Hancock et al., 2009; International Accounting Education Standards Board, 2010). The AICPA Core Competency Framework, for instance, lists communication as a fundamental personal competency "needed by all students entering the accounting profession, regardless of the career path they choose (public/industry/government/nonprofit) or the specific accounting services they will perform" (AICPA, 2005). The International Federation of Accountants echoes this demand for communication competency in its International Education Standard 3 (IES3): "Individuals seeking to become professional accountants should acquire the following skills: (a) intellectual skills, (b) technical and functional skills, (c) personal skills, (d) interpersonal and *communication*

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skills [italics added], and (e) organizational and business management skills" (International Accounting Education Standards Board, 2010, *IES3 Professional Skills and General Education*, para. 13).

Effective business writing is singled out in the AICPA Core Competency Framework as a required skill (Sharifi, McCombs, Fraser, & McCabe, 2009). Accountants desiring to achieve U.S. certified public accountant (CPA) status must demonstrate that they can write effectively by successfully passing the written portion of Uniform CPA Exam (AICPA, 2009). For the global accounting community, the International Federation of Accountants expects accounting professionals to demonstrate the ability to "present, discuss, report and defend views effectively through formal, informal, written and spoken communication" (International Accounting Education Standards Board, 2010, *IES3 Professional Skills and General Education*, para. 17(f)).

What is not clear from the literature is what the profession means by "effective writing" or what should be included in the accountant's written communication skill set. Although some research has been conducted to identify which specific written communication competencies accounting employers consider important, that research is dated (Christensen & Rees, 2002). Furthermore, previous research focused primarily on traditional communication skills with little attention, if any, to computer-mediated communication such as microblogging or social networking (Marshall, Cardon, Norris, Goreva, & D'Souza, 2008). Little is known regarding which computer-facilitated written communication skills employers expect of new hires or whether selected computer-mediated skills have displaced traditional written communication skills such as spelling correctly. Using a survey methodology, this research examines those employer expectations. Specifically, the following research questions were addressed:

Research Question 1: What specific written communication skills do employers expect from accounting graduates? Are some skills more important than others?

Research Question 2: Do employers place the same importance on communication skills that are computer mediated as they do on basic writing mechanics or effective business writing?

Research Question 3: Are there are gaps between employer expectations and the communication skill levels of new accounting graduates?

For purposes of this research, computer-mediated communication is defined broadly to include all forms of human communication that rely on computer systems for messaging (Dupin-Bryant, 2004). The article begins with a review of the relevant U.S. and international literature exploring the importance of written and computer-mediated communication in accounting practice and then examinies previous survey research on communication skills for accountants. The literature review is followed by a discussion of the research methodology and the development and administration of the survey instrument. Survey findings, beginning with a respondent profile, are then discussed; results are presented in research question order. In the final section, the conclusions are summarized and implications for accounting curriculum posited. The main contribution of this research is a current employer perspective on the composition of the written communication skill set in the accounting workplace, with special attention to the role of computer-mediated communication.

LITERATURE REVIEW

As early as 1980, Ingram and Frazier explored the specific communication skills required by U.S. accounting professionals. Based on results from a 20-item communication skills inventory, they found that the communication skills of recent accounting graduates were significantly deficient (Ingram & Frazier, 1980). Not too long after, the American Accounting Association appointed the Bedford Committee on the Future Structure, Content, and Scope of Accounting Education to assess the current state of accounting education and develop a roadmap for the future. The Committee concluded that accounting curriculum should be reoriented from the "preparation of financial statements to an expanded economic/financial information development and distribution function" for economic decision making (American Accounting Association Committee on the Future Structure, Content, and Scope of Accounting Education, 1986, p. 191). Study recommendations included specific emphasis on "communication including application of organizational concepts and interpersonal relationships in both formal and informal settings" (American Accounting Association Committee on the Future Structure, Content, and Scope of Accounting Education, 1986, p. 182).

Academia was slow to respond to the Bedford Committee. Ten years after publication of the Bedford report, former editor of the *Journal of*

Accounting Education Kent St. Pierre (1996) still questioned whether communication skills taught in colleges and universities mirrored workplace requirements. Rather than essays or long research projects, St. Pierre advocated curricular focus on writing concisely using proper grammar.

In response to declining student interest in pursuing accounting as a major, Albrecht and Sack (2000) undertook research funded by the AICPA, Institute of Management Accounting, the American Accounting Association, and the largest public accounting firms to chart a new direction for accounting education in the 21st century. As part of their effort, they surveyed 4,000 accounting educators and practitioners to identify core skill sets. Of the 22 "critical" skills rated, written communication was ranked first by practitioners ($M = 4.32$) and second by faculty ($M = 4.39$). Analytical/critical thinking, in contrast, was ranked first by faculty ($M = 4.53$) and second by practitioners ($M = 4.29$). Oral communication ranked third with both respondent groups ($M = 4.27$ practitioner; $M = 4.22$ faculty). Computing technology, defined as skill with spreadsheets, word processing, windows-based operating systems, and browsers, ranked fourth with both practitioners ($M = 4.10$) and academics ($M = 4.07$).

Francisco and Kelly (2002) replicated the core skills section of the landmark Albrecht and Sack study, this time from a student perspective. Drawing from a sample of 223 U.S. undergraduate business students, the research team found students also placed a high priority on communication skills. Written communication was ranked first ($M = 4.65$) by accounting students, oral communication second ($M = 4.57$), and computing technology seventh ($M = 4.04$).

In 2005, Lin, Xiong, and Liu, once again, replicated the Albrecht and Sack study (as modified by Francisco and Kelly) with a sample of 185 practitioners, 43 faculty, and 876 university students from southeast China. In general, respondents rated the importance of written communication lower ($M = 3.82$) than in either the Albrecht and Sack or Francisco and Kelly studies. Rankings were also commensurately lower. Accounting practitioners ranked written communication ($M = 3.81$) third out of 18 professional skills, placing more importance on "professional demeanor" ($M = 3.98$) and "computing techniques" ($M = 3.86$). Faculty ranked written communication fourth ($M = 3.88$);

students ranked written communication even lower at ninth place (M = 3.81). The researchers attributed the lower rating and ranking for written communication importance to the difference in accounting education pedagogy in China with its narrow focus on content mastery over multidisciplinary skills such as writing. Lin et al. (2005) concluded that accounting education reform in China should pay particular attention to strengthening professional skills: "Chinese accounting students should be educated about the importance of written and oral communication skills, which accounting practitioners emphasize" (p. 162).

A year later, De Lange, Jackling, and Gut (2006) examined the relationship between technical and professional skills coverage in the Australian undergraduate accounting curriculum and the actual skill set required on the job. From a random sample of 310 accounting graduates, De Lange et al. found graduates perceived a decided gap between program emphasis and skills required by employers—written communication (actual M = 3.33; desired M = 4.02), oral communication (actual M = 2.75; desired M = 3.92), and computing (actual M = 3.07; desired M = 4.01). De Lange et al. (2006) concluded that "although numerous researchers have supported the continued development of such skills in graduates, it would appear that transforming this skill development into so-called 'graduate attributes' is not a readily achievable objective" (p. 379).

Johnson, Schmidt, Teeter, and Henage (2008) replicated the Albrecht and Sack study with a sample of 96 employers from the intermountain west region of the United States. Study results were not consistent with Albrecht and Sack. Instead, local employers sought accounting graduates with "a broader range of knowledge, skills, and abilities than do national or international employers" (Johnson et al., 2008, p. 252). In the Johnson et al. study, written communication ranked fifth (M = 4.22) and oral communication first (M = 4.28). As with the Francisco and Kelly study (2002), computing technology was ranked seventh (M = 4.13).

The major drawback to using the Albrecht and Sack (2000) study for shaping communication curriculum is that the research only treats communication skills as broad categories. Their research is silent on the individual skills comprising written or oral communication competencies. In an effort to determine the relative importance of the individual communication skills most in demand by employers, Christensen

and Rees (2002) surveyed some 90,000 randomly selected members of the Institute of Management Accounting and the AICPA with a 32-item business communication skills inventory. Competency specifications were drawn from an abbreviated version of Warner's (1995) 50-item list of English, oral/interpersonal, and writing skills. The response rate was about 3%, with 87% of those from the AICPA.

Respondents were asked to rate the importance of and satisfaction with skill levels for entry-level accountants on a five-point Likert-type scale (1 = *unimportant*; 5 = *extremely important*). The top five written communication skills were (a) correct grammar ($M = 4.48$), (b) clear writing ($M = 4.42$), (c) correct spelling ($M = 4.35$, (d) effective organization ($M = 4.20$), and (e) business vocabulary ($M = 4.16$).

Although Christensen and Rees (2002) were successful in identifying high-demand communication skills from an accounting employer perspective, their survey instrument was based on Warner's (1995) skills inventory, which did not include any computer-mediated communication competencies. To isolate a set of computer-mediated communication skills for purposes of this study, the literature on content audits of the business communication course was examined (Glassman & Farley, 1979; Ober, 1987; Ober & Wunsch, 1995; Russ, 2009; Wardrope & Bayless, 1999). Although earlier studies such as that of Wardrope and Bayless (1999) do mention technology skills sets such as email and browsing, not surprisingly the most recent audit by Russ (2009) provides the most robust data on skill coverage. Russ (2009) surveyed 505 business communication instructors to determine coverage levels of written, oral, interpersonal, and a new entrant—"mediated" communication. Although instructors reported coverage levels were highest for written communication ($M = 3.91$) and public speaking ($M = 3.89$), some class time was devoted to mediated communication. On a five-point Likert-type scale with anchors *not covered* (1) and *covered extensively* (5), Russ reported that in the category of computer-mediated communication, effective use of email was most frequently covered ($M = 3.64$), followed by Internet use ($M = 3.00$). Effective use of instant/text messaging was only minimally covered ($M = 2.19$).

RESEARCH METHOD

The purpose of this research was to identify employer priorities for specific written communication skills for new hires and whether

recruits possess the requisite skills. Data were collected using survey research. Skill sets were drawn from a review of the literature (Christensen & Rees, 2002; Russ, 2009; Stowers & White, 1999) and were updated and then revised to include emerging mediated-communication skills sets for microblogging and social networking. Skills suggested by a review of the most popular text on communication for accountants (May & May, 2009) and the content and skill specifications for the uniform CPA examination (effective January 1, 2011) were also incorporated (AICPA, 2009).

Measurement of employer priority for specific written communication skills was operationalized by asking employers to self-report importance levels on a five-point Likert-type scale for each of 26 skills. Likewise, employers were asked to self-rate satisfaction with new hires' preparation levels for the corresponding skill. The questionnaire was pilot tested with the 22 faculty from the Accounting and Information Systems Department, College of Business and Economics, California State University, Northridge (CSUN), and any suggestions incorporated in the final instrument.

During spring 2010, the survey instrument was administered to all employers who have hired or intend to hire CSUN accounting graduates for full-time employment and internships. CSUN, a large urban public university located in the greater Los Angeles metropolitan area, houses an AACSB-accredited business school with more than 1,800 accountancy and preaccountancy majors and 300 information systems majors. Four hundred forty-four representatives from firms and organizations recruiting at CSUN comprised the population frame. No incentive was provided to encourage participation; however, firm representatives could elect to receive aggregated results from the survey.

SurveyMonkey.com was used to host the questionnaire. Each firm representative was emailed a request for participation with a link to the online survey. A follow-up request was sent one week later. Of the 444 representatives emailed, 56 responded, for a total response rate of 12.6%. Of those responses, 46 answered most of the importance and satisfaction questions in the survey, yielding a useable response rate of 10.4%. Frequencies may tally to less than 56, as not every firm representative answered every question.

Data collected from the survey instrument were tabulated into descriptive statistics, showing central tendency and dispersion. A combination

of PASW Statistics version 18.0.2 and an online calculator (Ellis, 2009) were used for descriptive and inferential statistical calculations. Effect sizes (*d*) were computed using Cohen's (1988) formula for standardized mean differences. Nonresponse bias was addressed by comparing importance and preparation satisfaction means (*t* test using 90% confidence interval) of early and late respondents (Lin & Schaeffer, 1995). For most items, means were similar. Late respondents rated a few importance items (business vocabulary, persuasive writing, routine letters) and satisfaction items (documentation completeness, editing/revision, art/table design, persuasive writing) on average one half standard deviation higher than did early respondents.

FINDINGS AND DISCUSSION

Respondent Profile

Table 1 summarizes demographic information regarding gender, age, position, employment sector, geographic scope of public accounting firms, specialization, and experience for the 56 useable responses.

Research Question 1: Employers' Views About Specific Written Communication Skills

Table 2 summarizes employer expectations concerning the 26 written skill competencies and their assessment of the related preparation levels. Mean importance ratings for each learning objective are compared side-by-side with the corresponding satisfaction scores for new-hire preparation level for the given skill.

Eight written communication skills were rated at or above the midpoint between extremely important and very important. The top eight skills were the following: (a) effectively organizing sentences and paragraphs ($M = 4.67$, $SD = 0.63$); (b) writing clearly and precisely ($M = 4.65$, $SD = 0.57$); (c) spelling correctly ($M = 4.63$, $SD = 0.61$); (d) preparing concise, accurate, and supportive documents ($M = 4.57$, $SD = 0.69$); (e) documenting work completely and accurately ($M = 4.56$, $SD = 0.66$); (f) using correct grammar ($M = 4.54$, $SD = 0.66$); (g) conscientiously editing/revising documents ($M = 4.52$, $SD = 0.62$); and (h) effectively using email ($M = 4.50$, $SD = 0.66$). Respondents were consistent in their assessments of each skill as the variability in importance as measured

Table 1. Descriptive Statistics (*N* = 56)

Demographic Category	*f*	%	*Demographic Category*	*f*	%
Gender			Public accounting by geographic scope		
Male	33	64.7	International—"Big 4"	19	44.2
Female	18	35.3	National	8	18.6
Age (years)			Regional	6	14.0
20-30	13	25.0	Local—General practice	4	9.3
31-40	15	28.8	International—other than "Big 4"	3	7.0
41-50	12	23.1	Local—Specialized	3	7.0
51+	12	23.1	Specialization		
Current position			Audit	23	41.1
Senior management	22	39.3	Tax	13	23.2
Middle management	15	26.8	HR management	5	8.9
Professional	14	25.0	Information systems	4	7.1
Other	5	8.9	Consulting	2	3.6
Employment sector			Education	2	3.6
Public accounting	44	78.6	Financial/managerial accounting	2	3.6
Government	4	7.1	Other	5	8.9
Industry	3	5.4	Experience	*M*	*SD*
Education	2	3.6	Average years experience	16.2	11.9
Other	3	5.4			

NOTE: Sample size (*n*) for general demographics ranged from 51 to 56 because several respondents did not answer the questionnaire completely, leaving blank one or more questions. The itemization for Public Accounting by Geographic scope sums to one less than the tally total (44) as one participant did not specify his/her firm category.

by standard deviation was relatively low. Table 2 lists all 26 communication skills in importance order, providing a simulated ranking. For the most part, differences in the rank order among the top eight skills were not significant. The only exceptions were effective organization (ranked first) and documentation completeness (ranked fifth). Paired-sample *t* tests of the importance means revealed that effective organization was significantly more important than documentation completeness, confirming the difference in rank order between these two skills.

Survey results on the importance ratings of specific written communication skills are largely consistent with the Christensen and Rees (2002) research. In that study, the top five skills were grammar, clear writing, spelling, organization, and vocabulary. Beason (2001) provides a potential explanation for employers' clear preference for correct

Table 2. Specific Communication Skills Needed by New Hires

	Importance			*Satisfaction*				
Communication Skill	*Rank*	*Mean*	SD	*Rank*	*Mean*	SD	t	*Cohen's* d
Organizes information into effective sentences and paragraphs	1	4.67	0.63	24	3.11	1.06	7.48***	1.79
Writes clearly and precisely	2	4.65	0.57	26	3.00	0.99	8.59***	2.04
Produces correctly spelled documents	3	4.63	0.61	9	3.47	1.01	6.38***	1.39
Prepares documents that are concise, accurate, and supportive of the subject matter	4	4.57	0.69	19	3.26	0.98	6.37***	1.55
Documents and cross-references work performed and conclusions reached in a complete and accurate manner	5	4.56	0.66	6	3.50	0.86	6.94***	1.38
Uses grammar correctly	6	4.54	0.66	22	3.21	1.12	7.04***	1.45
Edits and revises documents conscientiously	7	4.52	0.62	16	3.28	1.07	6.70***	1.42
Effectively uses email for external and internal correspondence	8	4.50	0.66	3	3.54	0.97	5.59***	1.16
Uses an effective business vocabulary	9	4.33	0.73	12	3.42	1.06	4.69***	1.00
Organizes, develops, and composes effective reports	10	4.33	0.82	18	3.26	0.91	6.07***	1.24
Creates document drafts using a word processor	11	4.28	0.83	1	4.21	0.78	1.68	0.09
Employs an appropriate level of tone and formality	12	4.26	0.74	17	3.28	1.12	5.09***	1.03
Punctuates documents properly	13	4.26	0.83	4	3.53	1.06	3.80***	0.77
Writes naturally and on the reader's level	14	4.24	0.92	21	3.21	0.74	4.72***	1.23
Provides effective transitions between ideas	15	3.98	0.88	14	3.35	0.89	3.83***	0.71
Writes persuasively	16	3.93	1.02	23	3.18	0.77	3.83***	0.83
Formats letters and memos properly	17	3.84	1.00	7	3.49	0.88	2.13	0.37

(continued)

Table 2. (continued)

Communication Skill	*Importance*			*Satisfaction*			t	*Cohen's* d
	Rank	*Mean*	SD	*Rank*	*Mean*	SD		
Properly cites references to authoritative literature and other sources	18	3.78	1.13	5	3.51	0.92	2.25	0.26
Writes routine letters (e.g., request information, acknowledge inquiries, etc.)	19	3.76	1.18	13	3.41	0.85	2.77***	0.34
Incorporates headings and structural cues (e.g., bullets, page layout) to guide the reader	20	3.65	1.04	8	3.47	0.74	1.75	0.20
Includes well-designed illustrations, graphs, and tables where appropriate	21	3.30	1.07	2	3.55	0.89	–0.48	–0.25
Maintains a professional presence on social networks	22	3.30	1.35	10	3.44	0.93	0.34	–0.12
Outlines material before writing	23	3.13	1.24	25	3.00	0.87	2.13	0.12
Uses jargon in appropriate situations	24	3.07	1.14	11	3.42	0.75	–0.63	–0.36
Uses instant/text messaging effectively	25	2.37	1.27	15	3.30	0.84	–3.34***	–0.86
Narrates blog and microblog entries (e.g., tweets) using a readable style	26	2.07	1.31	20	3.22	0.75	–2.66	–1.08

NOTE: Sample size (n) ranged from 45 to 56 because several respondents did not answer the questionnaire completely, leaving blank one or more importance and satisfaction rating questions. Likert-type scale values for calculation of importance rating average (*Not Important* = 1, *Somewhat Important* = 2, *Important* = 3, *Very Important* = 4, and *Extremely Important* = 5) and satisfaction rating (*Very Dissatisfied* = 1, *Somewhat Dissatisfied* = 2, *Neither Satisfied nor Dissatisfied* = 3, *Somewhat Satisfied* = 4, *Very Satisfied* = 5).

***$p < .01$.

grammar, spelling, and usage. In his mixed-methods study of 14 employers concerning the relative gravity of composition errors, Beason examined the impact of misspellings, fragments, fused sentences, unnecessary quotation marks, and word-ending errors. He found that documents with these types of errors not only lead to misunderstood messages but tended to reduce the writer's creditability and had a negative impact on the employers' image.

The remaining 16 written communication skills in the survey clustered into four groups (see Table 2). Six were rated very important (business vocabulary, composing reports, word processor use, tone, punctuation, and reader view). Employers perceived these skills as critical for the workplace but not as essential as the top eight identified earlier. Another six written communication skills were rated as important (effective transitions, persuasive writing, letter/memo format, citing references, routine letters, and page layout). Variability of responses was greater for this cluster, indicating respondents were not as uniform in their perceptions of the importance of the skills in this set.

Four written communication skills received ratings well below the midpoint between very important and important. These lesser skills were use of visuals, professional presence on social networks, outlining, and business jargon. Again, variability in responses was high, indicating a lack of consensus among participants. The final two competencies in the written communication skills inventory were rated as only somewhat important. Employers did not place much value on using instant/text messaging effectively nor narrating blogs large or small.

A comparison of this survey with the Russ (2009) study is instructive, though the results are not entirely comparable. Rather than focus on employer importance ratings, Russ examined classroom coverage levels for a comprehensive inventory of business communication topics, including computer-mediated communication skills. A five-point Likert-type scale ranging from *not covered* (1) to *covered extensively* (5) was used. Participants indicated that "effective use of email" ($M = 3.64$) received significantly more topic coverage than "effective use of instant/text messaging" ($M = 1.19$). Coverage of social networking and microblogging were not included in his survey instrument.

On a rank basis, results of this research parallel the coverage levels found in Russ (2009). The importance rating for "effective use of email" in this research was ($M = 4.50$, $SD = 0.66$), with importance for

"effective use of instant/text messaging" significantly lower ($M = 2.37$, $SD = 1.27$). This suggests a consistency between importance and coverage—email taking precedence over instant messaging. Furthermore, it would appear employers place somewhat more importance on entry-level competencies in these two computer-mediated communication skills than the coverage afforded in the average business communication course.

Research Question 2: Employers' Perception of Importance of Communication Skills by Major Category

To facilitate analysis of the survey results, skills were grouped into four scales: (a) basic writing mechanics, (b) documentation, (c) effective writing, and (d) computer-mediated communication (see Table 3). Major categories were derived from the same literature (Christensen & Rees, 2002; Russ, 2009) from which the individual skills were drawn.

Employer's perceived Basic Writing Mechanics as the most important ($M = 4.53$, $SD = 0.52$) communication skill category (see Table 3), rating this cluster slightly above midway between very important and extremely important. Documentation ranked second in terms of relative importance ($M = 4.39$, $SD = 0.67$). Effective Writing was ranked slightly less important ($M = 4.08$, $SD = 0.56$) but still considered very critical. Respondents rated Computer-mediated Communication significantly lower ($p < .01$) in importance ($M = 3.15$, $SD = 0.91$) than the other three major categories but still as an important communication skill category for entry-level accountants.

These results confirm Christensen and Rees (2002). In that survey, basic writing mechanics (referred to as "English skills" in the study; $M = 4.25$) also significantly outranked effective writing (referred to as "writing skills"; $M = 3.25$) in terms of employer-perceived importance. Documentation skills and computer-mediated communication competencies were not assessed in the 2002 study.

Research Question 3: Expectation Gap in Communication Skills

On the whole, employers were only marginally satisfied with new hire preparation levels for the entire set of the communication competencies. Although satisfaction means did exceed the neutral midpoint

Table 3. Importance of Entry-Level Communication Skills by Major Category

	Importance			*Satisfaction*				
Communication Skill Category	*Rank*	*Mean*	SD	*Rank*	*Mean*	SD	t	*Cohen's* d
Basic writing mechanics	1	4.53	0.52	2	3.39	0.94	6.42***	1.50
Produces correctly spelled documents		4.63	0.61		3.47	1.01		
Uses grammar correctly		4.54	0.66		3.21	1.12		
Uses an effective business vocabulary		4.33	0.73		3.42	1.06		
Punctuates documents properly		4.26	0.83		3.53	1.06		
Documentation	2	4.39	0.67	1	3.43	0.76	5.02***	1.34
Prepares documents that are concise, accurate, and supportive of the subject matter		4.57	0.69		3.26	0.98		
Documents and cross-references work performed and conclusions reached in a complete and accurate manner		4.56	0.66		3.50	0.86		
Properly cites references to authoritative literature and other sources		3.78	1.13		3.51	0.92		
Effective writing	3	4.08	0.56	4	3.33	0.67	5.00***	1.21
Organizes information into effective sentences and paragraphs		4.67	0.63		3.11	1.06		
Writes clearly and precisely		4.65	0.57		3.00	0.99		
Edits and revises documents conscientiously		4.52	0.62		3.28	1.07		
Organizes, develops, and composes effective reports		4.33	0.82		3.26	0.91		
Creates document drafts using a word processor		4.28	0.83		4.21	0.78		
Employs an appropriate level of tone and formality		4.26	0.74		3.28	1.12		
Writes naturally and on the reader's level		4.24	0.92		3.21	0.74		
Provides effective transitions between ideas		3.98	0.88		3.35	0.89		
Writes persuasively		3.93	1.02		3.18	0.77		
Formats letters and memos properly		3.84	1.00		3.49	0.88		

(continued)

Table 3. (continued)

Communication Skill Category	*Importance*			*Satisfaction*				
	Rank	*Mean*	SD	*Rank*	*Mean*	SD	t	*Cohen's* d
Writes routine letters (e.g., request information, acknowledge inquiries, etc.)		3.76	1.18		3.41	0.85		
Incorporates headings and structural cues to guide the reader		3.65	1.04		3.47	0.74		
Includes well-designed illustrations, graphs, and tables where appropriate		3.30	1.07		3.55	0.89		
Outlines material before writing		3.13	1.24		3.00	0.87		
Uses jargon in appropriate situations		3.07	1.14		3.42	0.75		
Computer-mediated communication	4	3.15	0.91	3	3.35	0.71	−1.13	−0.25
Effectively uses email for external and internal correspondence		4.50	0.66		3.54	0.97		
Maintains a professional presence on social networks		3.30	1.35		3.44	0.93		
Uses instant/text messaging effectively		2.37	1.27		3.30	0.84		
Narrates blog and microblog entries (e.g., tweets) using a readable style		2.07	1.31		3.22	0.75		

NOTE: Sample size (n) ranged from 39 to 40 because several respondents did not answer the questionnaire completely, leaving blank one or more importance and satisfaction rating questions. Likert-type scale values for calculation of importance rating average (*Not Important* = 1, *Somewhat Important* = 2, *Important* = 3, *Very Important* = 4, and *Extremely Important* = 5) and satisfaction rating (*Very Dissatisfied* = 1, *Somewhat Dissatisfied* = 2, *Neither Satisfied nor Dissatisfied* = 3, *Somewhat Satisfied* = 4, *Very Satisfied* = 5).
***$p < .01$.

(3 = *neither satisfied nor dissatisfied*) for all 26 written communication skills, there was only one competency for which employers were somewhat satisfied—the ability to draft documents using a word processor ($M = 4.21$). Clear writing ($M = 3.00$) and outlining ($M = 3.00$) tied for the lowest satisfaction level.

In isolation, satisfaction levels tell only part of the story. A more meaningful measure is the comparison between the average related satisfaction rating and the employers' importance for a given communication skill. A significant difference in means implies there is an expectation gap between what employers expect from new accounting hires and the actual communication skill graduates bring to the job. To determine if there were such gaps, a series of paired-sample *t* tests were performed. For 16 of the communication skills, employers' mean satisfaction with preparation levels was statistically significantly lower than the importance rating for the same skill ($p < .1$). There was one exception; employers rated satisfaction with text/instant messaging ($t = -3.34$) competency significantly higher (.95% confidence interval = 0.15, 0.98) than they rated the importance of texting/online chatting as an on-the-job communication skill.

To assess the practical significance of the findings, standardized mean differences (*d*) were calculated (Tables 2 and 3). For most of the statistically significant mean differences, effect sizes were between the threshold ranges of medium ($d > 0.50$; Cohen, 1988) to very large ($d > 1.30$; Rosenthal, 1996). The lone exception was mean difference for "writes routine letter" for which the effect size was small ($d = 0.34$).

Employer satisfaction levels and possible expectation gaps were also analyzed for each of the four communication scales. Consistent with the results of the analyses of individual competencies, entry-level performance in the four communication skill categories was closer to neutral than somewhat satisfied. Means were narrowly clustered, ranging from a low of 3.33 ($SD = 0.67$) for Effective Writing to a high of 3.43 ($SD = 0.76$) for Documentation. A series of paired-sample *t* tests revealed that the employer satisfaction levels for the top three communication skill categories were significantly lower than the related importance rating. Only for the Computer-mediated Communication scale did employer perception of importance and satisfaction levels seem to align. In fact, employers were slightly more ($d = -0.25$)

satisfied with graduates' preparation levels for computer-mediated communication skills than the importance ascribed to that skill set.

For this survey, the employer satisfaction levels for individual skills exceeded those from the Christensen and Rees (2002). In that study, respondents rated satisfaction below the neutral midpoint for five communications skills with an importance rating of 3 (*important*) or above. Skills for which entry-level accountants were not adequately prepared included one basic writing skill (i.e., uses correct grammar) and four effective writing skills (i.e., edits and revises documents conscientiously, organizes information into effective sentences and paragraphs, writes persuasively, and writes clearly and precisely). A possible explanation for the difference in employer satisfaction levels between the two studies is discussed in the conclusion.

CONCLUSION, LIMITATIONS, AND CURRICULAR IMPLICATIONS

Summary of Conclusions

The purpose of this study was to investigate the specific entry-level written communication skills employers expect from accounting graduates, satisfaction with the graduates' preparation levels for those skills, and the importance of selected computer-mediated communication competencies in accounting practice. Descriptive and inferential analyses of the survey data yield the following conclusions.

Research Question 1: Demand for specific written communication skills. In today's workplace of virtual offices and virtual teams, employers expect accounting new hires to have a suite of traditional written communication skills supplemented with some documentation and computer-mediated communication competencies. The most important written communication skills, listed in mean order, are (a) effectively organizing sentences and paragraphs; (b) writing clearly and precisely; (c) spelling correctly; (c) preparing concise, accurate, and supportive documents; (d) documenting work completely and accurately; (e) using correct grammar; (f) conscientiously editing and revising documents; and (g) effectively using email. Differences in simulated rank order among the top eight skills were generally not significant.

The only computer-mediated communication skill employers regard as essential is effective use of email. Given the significance of email in daily workflow and the litigious nature of modern enterprise in which this form of communication is often subject to subpoena as court evidence, it is no surprise potential employers place a high value on effective emailing. What was surprising was the lack of relative importance attributed to the other computer-mediated forms of communication common in the workplace. "Maintaining a professional presence on social networks" ranked only 22nd out of 26 written communication skills. Effective instant/text messaging and readable blogs/tweet ranked next to last (25th) and last (26th), respectively. For instant messaging, the employer importance ratings seem to be at odds with current practice. Many public accounting firms require staff to use instant messaging for real-time text-based communication (Janvrin, Bierstaker, & Lowe, 2008). Further research is needed to determine why employers place so little importance on instant messaging given its use as a mainstay of day-to-day communication in the professional workplace.

Research Question 2: Importance of entry-level communication skills by major category. Of the four written communication categories used to aggregate skills into scales, employers consider Basic Writing Mechanics most important. Employers rate the combination of correct grammar, spelling, punctuation, and word usage somewhere between very important and extremely important. Following close behind are Documentation and Effective Writing. Although more and more written communication is computer-mediated, employers do not consider Computer-mediated Communication skills to be nearly as important as Basic Writing Mechanics, Documentation, or Effective Writing.

Research Question 3: Communication skills gap. Although employers are neutral (neither satisfied nor dissatisfied) or somewhat satisfied with new hire preparation levels for the entire suite of communication competencies, for most skills there is a significant expectation gap between the individual skill importance and the related satisfaction rating. For example, of the top 10 written communication skills (Table 2), the mean satisfaction score for each one is significantly below the associated importance rating. The one notable exception is text messaging—employers are more satisfied with the existing competency level than

any importance attributed to the skill. For some skills such as word processing, letter and memo formatting, or social network maintenance there is no gap as the skill preparation level and related importance of the skill appear to match.

When the individual written communication skills are aggregated into each of four major communication categories, the employer satisfaction levels and any skills gap sharpen. Employers are, on the whole, somewhat satisfied with the preparation level of accounting graduates for Basic Writing Mechanics, Documentation, and Effective Writing. They are neutral with regard to Computer-mediated Communication skills. For the top three written communication categories, there is a significant gap between the aggregate skill importance and the related satisfaction rating. For computer-mediated communication skills no such skill gap exists.

Limitations of the Study

Although the 10.4% useable response rate was satisfactory for a web survey, the sample ($N = 56$) was not as large as anticipated. Sample size was offset by medium ($d > 0.50$; Cohen, 1988) to very large ($d > 1.30$; Rosenthal, 1996) effect sizes for most of the significant mean differences, both for individual items (Table 2) and the four communication scales (Table 3). Because the sample was drawn from a single major U.S. urban area, survey results might not be representative of employers in other regions of the world nor in the other major categories of employment (i.e., industry, education, government, and not-for-profit). Nonetheless, this study's findings are, on the whole, consistent with the much larger Christensen and Rees (2002) sample ($N = 2{,}181$), both in terms of skill importance ratings and respondent demographics. Given this study parallels Christensen and Rees (2002), it is believed the findings can be generalized beyond the original population frame to accounting employers in large urban areas in general.

Implications for the Accounting Curriculum

Though the set of written communication competencies required of accounting graduates largely overlaps the set required of business graduates, there are important differences between the two skill suites (AICPA, 2005). Employers expect new accounting recruits to

document and cross-reference work performed in accordance with authoritative standards (Moncada, Nelson, & Smith, 1995), reference and cite specialized literature from the Financial Accounting Standards Board Codification or the International Accounting Standards Board financial reporting standards (AICPA, 2009), and prepare specialized reports such as audits and systems documentation (Chiurri & Varaksina, 2006). To date, much of the research on job-related written communication competencies has taken a broad approach, often from a business communication faculty perspective (Russ, 2009; Wardrope & Bayless, 1999). The unique contribution of this study is the focus on communication skills in a professional accounting context from an employer's point of view. Firms that hire entry-level accountants provided valuable insight into the relative importance of both general and accounting-specific written communication competencies. Of special interest is employer's feedback on emerging computer-mediated communication skills. Based on the study findings, the following accounting education curricular recommendations emerged:

1. Additional emphasis should be placed on basic writing mechanics either through a second course in communication or a writing-across-the-curriculum initiative. Prior to graduation, undergraduate accounting students should demonstrate a threshold level of Business Communication skills that meets accounting employers' expectations.
2. Organization, clarity, and the writing/revision process should be stressed over visuals, outlining, and the proper use of jargon when focusing on the Effective Writing component of business communication instruction.
3. "Preparing concise, accurate, and adequately cross-referenced documentation" should be included in the required written communication skill set, though not necessarily covered in the first Business Communication course. Topic coverage should be coordinated across the accounting curriculum with the most likely candidates being auditing principles or a second course in professional communication.
4. Email messaging should continue to receive topic priority over other computer-mediated communication but not to the exclusion of emerging technologies. Students should still be exposed to effective workplace strategies for instant messaging and microblogging.

Basic writing mechanics still important. The survey results are clear that employers continue to expect today's accounting graduates to have

a good grasp of grammar and punctuation. In this survey, employers were somewhat satisfied with student competencies in all four components of Basic Writing Mechanics (M = 3.39). Results exceed employer satisfaction levels (M = 3.20) in Christensen and Rees (2002). One possible explanation is that the CSUN undergraduate accounting curriculum was revised more than seven years ago to place a greater emphasis on professional communication. In response to employer feedback, a corequisite course in accounting communication (ACCT 351COM Communications for Accountants) with a business communication prerequisite was added to Intermediate Accounting II (Lundblad & Wilson, 2008). The accounting communications course is offered through the Accounting and Information Systems Department; the prerequisite business communication course (ENGL 205 Business Communication in Rhetorical Contexts) is provided by the English Department housed in the College of Humanities.

As part of the accounting communications course, students are required to pass a style, grammar, and usage diagnostic exam. Successful completion of the diagnostic is a challenge for many, especially for CSUN's large population of nonnative speakers of English. To help students prepare for the diagnostic, they are given a preassessment exam in Intermediate Accounting I and assigned to complete a workbook during the academic calendar break between Intermediate Accounting I and II. Students are allowed two attempts at the diagnostic before receiving an Incomplete grade for the corequisite communications course. An additional two attempts are allowed the following semester. Students who do not successfully complete the diagnostic after four attempts are disqualified from the program and counseled into another major. Since the diagnostic requirement was added to the accounting communications course, mean scores have risen from 62% to 80%—well above the 70% required to pass. By requiring a second course in communication, CSUN not only addresses employer's demand for specific written communication skills, it ameliorates the potential impact of differentiated instruction from cross-disciplinary delivery of the introductory business communication. As Laster and Russ (2010) discovered, discipline matters; there are significant pedagogical differences in business communication pedagogy depending on where the instruction is housed. Business instructors, for example, "focus more on writing and give greater attention to workplace technology" than do faculty in

Communication, for instance, who instead emphasize oral communication and business communication theory (Laster & Russ, 2010, p. 257).

Essential components of effective writing. Employers rate seven components of effective writing as very important—sentence/paragraph organization, clear writing, editing/revision, report development, creating drafts, tone/formality, and reader viewpoint. These components of effective writing should receive relatively more course coverage than other topics considered by employers to be of less importance. Components in this latter category include transitions, persuasive writing, letter/memo formats, routine letters, headings/page layout, outlining, and jargon.

Documentation skills in demand. Both the AICPA Core Competency Framework (AICPA, 2005) for the accounting profession and the Skill Specification Outlines for the Uniform CPA Examination (AICPA, 2009) highlight the importance of effective documentation, including it as an essential written communication skill. When employers are asked to rate the importance of documentation as a communication skill, they rate documentation quality and documentation skills in the top five written communication competencies (i.e., relative rank of fourth and fifth in importance). Preparing concise, accurate, and adequately cross-referenced documentation should be an essential topic in the accounting curriculum.

How documentation instruction should be integrated into the accounting curriculum is beyond the scope of this research. However, one possible approach would be that used at CSUN (Lundblad & Wilson, 2008). The communication skills "Preparing documents that are concise, accurate, and supportive of the subject matter" (Table 2, Importance Rank 4) and "Properly cites references to authoritative literature and other sources" (Table 2, Importance Rank 18) are assigned for coverage to the professional communication course students take as a corequisite with Intermediate Accounting II. As part of the course students are introduced to the Accounting Standards Codification, accounting research methods, case analysis, and APA documentation style. Students complete a series of mini and major cases in which they (a) research the appropriate accounting literature; (b) analyze, interpret, and synthesize the technical material; and (c) effectively communicate the information

in a letter or memo using direct organization, mostly active voice, and proper documentation. The communication skill "documents and cross-references work performed and conclusions reached in a complete and accurate manner" (Table 2, Importance Rank 5) is covered and assessed in the auditing principles course. Further research is needed to determine the most appropriate course or combination of courses in which documentation instruction should be included.

Computed-mediated communication in the curriculum. This research suggests a possible weighting for the coverage of computer-mediated communication knowledge and practice skills. The rankings of the four computer-mediated communication channels assessed (email, social networks, instant/text messaging, and blogging) provide a good starting point for curricular emphasis. Effective email messaging should be a required topic in accounting communication; some coverage should be given to maintaining a professional presence on social networks. Popular personal communication technologies such as texting and tweeting deserve mention. Even though it appears usage of these two channels has not yet reached critical mass in the office, students should still be exposed to effective strategies for instant messaging and microblogging. As these newer communication channels become an increasingly important part of the professional workplace, topic coverage should be expanded. The challenge of integrating the latest computer-mediated communication skills into the accounting communication curriculum requires continual monitoring of emerging technologies and new media. Just as email usurped traditional correspondence as the primary mode of business communication, texting or tweeting (or some yet unknown digital development) will inevitably depose today's electronic mail. To prepare students for the office of tomorrow, technological vigilance is key.

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