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Teaching and educational notes

Making entry-level accountants better communicators: A Singapore-based study of communication tasks, skills, and attributes

H.P. Siriwardane [a,*], K.-Y. Low [b], D. Blietz [c]

[a] James Cook University, 149 Sims Drive, Singapore 387380
[b] Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798
[c] Western Washington University, Bellingham, WA 98225, USA

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ABSTRACT

Prior research reports that entry-level accountants (ELAs) lack appropriate levels of communication skills, and to-date, there are still gaps in our understanding of communication tasks frequently performed by ELAs, skills needed to fulfill these tasks, and attributes of written and oral communication that are critical to communicating effectively in the accounting field. This study attempts to fill some of the gaps by first amalgamating extant research to develop more comprehensive inventories of communication tasks, skills, and attributes (TSA) that would be critical for ELAs. Next, 59 practitioners (who have supervised ELAs) of accounting firms (both Big-4 and local firms) and members of the Chartered Institute of Management Accountants (CIMA) based in Singapore responded to our pilot survey to rate the frequency of communication tasks performed by ELAs, the importance of the identified communication skills and attributes, and the ELAs' communication skills and performance. Findings on importance ratings and importance–performance gaps provide useful insights to accounting/business/communication educators and researchers, higher education institutions, accounting students, and accounting practitioners in Singapore to better understand the current communication needs and/or deficiencies of the accounting profession. Future research opportunities, including the need to extend this study to other geographical areas using larger sample sizes, are discussed.

* Corresponding author. Tel.:+1 937 716 1555; fax: +1 65 6455 2833.
E-mail address: siriwahi@ucmail.uc.edu (H.P. Siriwardane).

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1. Introduction

Extant academic and professional research has identified the importance and need of more studies on communication in accounting education and practice (see Gray & Hamilton, 2014, 116; Pathways Commission on Accounting Higher Education, 2012, 10). Specifically, there are only three studies focused on communication skills of accountants in the past decade (Siriwardane & Durden, 2014). The most recent US-based study covering specific oral and written communication skills of accountants was in 2002 (Christensen & Rees, 2002). Thus, prior research may not be representative or informative of the specific communication needs of and challenges faced by today's accountants. On the other hand, several surveys report an expectation–performance gap related to the generic communication skills of accounting graduates (AccountingWeb, 2012; Cameron and Dickfos, 2014; Lin, Grace, Krishnan, & Gilsdorf, 2010, 63).

Recent calls for more communication studies in accounting emphasize the need for this research to be more context-specific. For instance, Tempone et al. (2012, 44) state that "(r)esearch should continue in an attempt to identify employers' perceptions of the attributes or skills they require from accounting graduates at various stages of career, but through a more nuanced, context-sensitive lens." The Pathways Commission on Accounting Higher Education (2012, 10) posits that classroom education should prepare accounting students adequately for industry requirements. Cameron and Dickfos (2014, 137) also propose that (oral) communication should be taught and assessed in a contextualized manner for accounting graduates to meet the professional demands of the workplace environment. However, most prior studies on communication skills of accountants classify verbal and written communication as a general skill, and examine communication skill in a generic sense to encompass communication tasks, skills, and qualities of communication.

Sundem and Williams (1992) advocate a "process-oriented" as opposed to "knowledge-oriented" education system for accountants. This will require educators to identify the communication tasks that accountants frequently perform so as to develop process-oriented learning outcomes to guide the design of communication curricula activities and assessments. In addition, Wilson (1992) stresses the importance of broad-based multi-disciplinary professional development that emphasizes adaptive competencies, which are developed through skills and experiences acquired in specifically structured occupations and career lines. These propositions will require educators to expose accounting students to activities that are carried out in practice – i.e., a need to authentically contextualize the accounting curriculum. However, this may not be possible due to time and resource constraints. The best alternative is for accounting educators to identify the communication-related *tasks* that accounting professionals perform in the workplace and then equip students with the *skills* necessary to perform those tasks. For example, if conducting telephone conversations is a task that entry-level accountants (ELAs) frequently perform, then communication skills such as listening attentiveness and responsiveness, informal speaking skills, and ability to acknowledge different viewpoints will be important to successfully fulfilling that task, and educators can help students develop these skills through various activities.

According to Spitzberg and Cupach (1984), communication competence is about achieving a successful balance between effectiveness and appropriateness. Effectiveness measures whether the goals of the interaction are achieved. For communication to be effective, the communicator needs to encode the actual information to suit the recipient. Appropriateness refers to fulfilling the expectations of a particular situation. If accounting educators want to improve students' communication competency, it is critical for educators to know the *attributes* (qualities or characteristics) of effective and appropriate communication. Consequently, if there were an established list of skills necessary to fulfill the communication-related tasks frequently undertaken by ELAs, educators could incorporate these skills into learning outcomes and evaluate whether, and to what extent, learning outcomes related to these desired skills are being met. In measuring these outcomes, especially those related to acquired communication skills, it is important to know which attributes are critical for effective communication. Educators could then emphasize these attributes in their assessment rubrics. We are not aware of any prior research in accounting that has examined communication tasks, skills, and attributes separately.

The Pathways Commission on Accounting Higher Education (2012) highlights the importance of developing an accounting competency map that identifies the competencies and their desired

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performance levels for different career stages in accounting. To develop a communication competency mapping for accounting, the first-step would be to develop comprehensive inventories of accounting-specific communication tasks, skills, and attributes. To enhance the usefulness of the inventories, it is important to identify accounting practitioners' perceptions of the relative significance of the identified communication tasks, skills and attributes (Tempone et al., 2012, 44).

Consequently, our study has three primary objectives: 1) develop separate comprehensive inventories of communication tasks, skills, and attributes; 2) identify the most frequently performed communication tasks and the most important skills and attributes as perceived by a sample of supervising accountants; and 3) determine supervisors' assessment of ELAs' ability to communicate effectively. Our research being a pilot study, we fulfill the second and third objectives through a preliminary survey of accounting practitioners in Singapore.

The first objective will be accomplished through an extensive literature survey. The most recently conducted survey-based research on accountants' communication skills is Jones (2011) on written and computer-mediated communication. Jones (2011, 248) notes that extant research on specific written communication skills is dated. He develops his skills list based on prior research, popular communication textbooks, and skill specifications of the Uniform CPA examination in the US. However, Jones considers mostly writing attributes not writing skills and tasks. Gray and Murray (2011) and Gray (2010) also state that most prior studies fail to identify specific oral communication skills. They come up with a fairly comprehensive oral communication skills inventory; they do not, however, address written communication or oral communication tasks and attributes. The comprehensive TSA lists we develop for this research may narrow the gap that still exists in the literature and serve as a basis for future research that examines communication as a discipline-specific skill. Accounting practitioners can potentially use the comprehensive TSA lists developed in this study as a reference when designing or reviewing the adequacy of their firms' training programs for ELAs.

The second objective will be addressed preliminarily by a pilot study involving accounting practitioners rating "how frequently do ELAs perform the identified communication tasks" and "how important are the identified communication skills and attributes to ELAs to communicate effectively." Siriwardane and Durden (2014) find that practitioners and educators differ in their perception of what are the important communication skills. Conrad and Newberry (2012), Tempone et al. (2012), Bui and Porter (2010), and Levenson (2000) share the same sentiment that academics and employers perceive, define, and measure generic skills differently. Conrad and Newberry (2012, 112) note that, despite the best efforts by educators, there are still differences in business communication skills desired by practitioners and possessed by new graduates. Understanding the needs of the profession through practitioners' insights will be useful to students in preparing for an accounting career as well as accounting and communication educators in designing their communication curricula for accounting students.

The third objective will also be addressed preliminarily by a pilot study involving accounting practitioners evaluating ELAs' communication abilities (actual performance). The findings can help not only to verify if the concerns raised by previous researchers (that there is a gap in communication skills in terms of what practitioners desire and what new accounting graduates possess) exists, but also indicate the specific skills where the largest gaps exist.

As discussed, we preliminarily address two of the research objectives with a pilot survey of accounting practitioners in Singapore. Officially, the Republic of Singapore is a Southeast Asian city-state with a strong multi-national business presence. Its business environment reflects the global business environment. Singapore accounting standards are closely modeled after the International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), and Singapore auditing standards closely replicate the International Standards on Auditing (ISA). Qualifications to become a Singapore Chartered Accountant include a university degree, practical experience, professional examination and continuing professional education (Accounting and Corporate Regulatory Authority (ACRA), 2013). In terms of its higher education system, the tertiary curriculum in Singapore is firmly grounded in the same principles as those in other developed countries. Business schools of all three national universities are accredited by AACSB International. In addition, two of the three universities offer accounting degrees and both of these accounting programs are accredited by the AACSB as well as the European Quality Improvement System

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(EQUIS). As is the case with most business schools world-wide, business schools of Singapore offer business communication courses. Because English is the official language in Singapore, it is the only language used in all education institutions (primary–tertiary). Its well-regulated financial sector, world-class universities, use of English as the official language, and adherence to IFRS, IAS, and ISA make Singapore a suitable place to conduct a pilot study related to accountants' communication competencies but it is important to extend this study to other countries in future research.

The next section discusses our research method. We then present the findings of our study, and conclude with a discussion of our findings and their implications, as well as suggestions for future research.

2. Research method

2.1. Developing TSA inventories

We developed two separate inventories of communication tasks relevant in an accounting context: one related to written communication and the other related to oral communication. Tasks were identified based on discussions with practicing accountants and a review of prior studies on accountants' communication skills/tasks (Addams, 1981; Andrews & Koester, 1979; Andrews & Sigband, 1984; Christensen & Rees, 2002; Gingras, 1987; Gray, 2010; Hanson, 1987; Hiemstra, Schmidt, & Madison, 1990; Ingram & Frazier, 1980; Jones, 2011; Juchau & Galvin, 1984; Moncada, Nelson, & Smith, 1997; Morgan, 1997; Nellermoe, Weirich, & Reinstein, 1999; Stowers & White, 1999). We also identified several tasks based on literature about accountants' changing role (Byrne & Pierce, 2007; Conrad & Newberry, 2012; Hopwood, 1983; International Federation of Accountants (IFAC), 2003). Our final task list consists of 10 written communication tasks and 15 oral communication tasks (see Table 1).

As mentioned previously, most prior studies on accounting communication examined a mix of tasks, skills, and attributes, without separating them. We screened the studies mentioned earlier and studies by Zaid and Abraham (1994), McLaren (1990), and Goby and Lewis (1999) and isolated communication skills to create the preliminary list of skills for our study. According to Benson (2014), communication skills are defined by the performance of specific tasks. We therefore carefully examined each task to see if there were other communication skills (that were not identified in prior research) that were needed to accomplish the task. Paraphrasing, separating facts from inference, cultural sensitivity, acknowledging different viewpoints, and avoiding ethnocentrism had not been examined in prior studies. Our final skills inventory includes 25 communication skills (see Table 1).

We followed a similar process to identify the attributes related to written and oral communication; first we screened the extant literature to identify the attributes of written and verbal communication skills and then added other attributes that we felt were important for effective and appropriate communication – like confidence, rapport, and humor. Our final attributes inventory includes 10 attributes related to written communication and 12 attributes related to oral communication (see Table 1).

2.2. Frequency of communication tasks, importance of ELAs' communication skills, importance of communication attributes, and Singapore ELAs' communication abilities

As mentioned earlier, to fulfill the second and the third objectives, we elicited accounting practitioners' assessments of TSA through a survey.

2.2.1. Survey

Data were collected by means of an online questionnaire. A link to this questionnaire was made available to the following three samples: (a) all Singapore-based members of the Chartered Institute of Management Accountants (CIMA); (b) directors/partners/owners of 100 accounting firms registered in Singapore, selected randomly from a list of 516 accounting firms; and (c) employees in the Singapore office of a Big-4 accounting firm. Completion of the survey was voluntary and anonymous. The survey questionnaire was organized into five parts: Part A sought to capture information about the respondent's designation, career sub-path, and years of experience. We also included a question to confirm whether the respondent had supervised ELAs (described as accountants with less than

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Table 1
Summary of tasks, skills, and attributes developed for this study.

Written communication tasks
1. Writing general correspondence (memoranda, letters, emails) to colleagues who are accountants
2. Writing general correspondence (memoranda, letters, emails) to colleagues and clients who are non-accountants
3. Writing formal correspondence to regulatory bodies, clients and colleagues
4. Preparing numerical schedules and statements with narratives
5. Writing non-numerical, non-technical reports
6. Preparing non-numerical, technical reports (audit reports, proposals, opinions etc.)
7. Preparing working papers
8. Documenting systems
9. Writing instructions and procedures
10. Writing electronic messages (e.g. emails, texts) to clients and colleagues

Oral communication tasks
1. Giving formal oral presentations to accountants (with use of visual aids)
2. Giving formal oral presentations to accountants (without use of visual aids)
3. Giving formal oral presentations to non-accountants (with use of visual aids)
4. Giving formal oral presentations to non-accountants (without use of visual aids)
5. Engaging in informal discussions
6. Conducting small group meetings
7. Asking questions in meetings
8. Answering questions in meetings
9. Conducting teleconference calls
10. Conducting telephone conversations
11. Conducting client interviews
12. Receiving oral feedback
13. Giving instructions
14. Conveying general information to clients and colleagues
15. Conveying technical information to clients and colleagues

Communication skills	
Reading related skills	Technological skills
1. Reading comprehension	15. Typing speed
2. Reading speed	16. Create visual aids
Listening related skills	17. Ability to locate information
3. Listening attentiveness	
4. Listening responsiveness (acting appropriately to messages received)	
Written communication skills	Other communication skills
5. Formal writing skills	18. Acknowledge different view points
6. Informal writing skills	19. Cultural sensitivity
Oral communication skills	20. Audience awareness
7. Informal speaking skills	21. Paraphrase (asking for clarification)
8. Formal presentation skills	22. Create a professional network
9. Negotiation skills	23. Avoid ethnocentrism or stereotyping
10. Bi-lingual skills	24. Identify and respond to non-verbal behaviors, and mannerisms
11. Ability to persuade	25. Separate facts from inferences
12. Ability to hold audience's attention	
13. Interviewing skills (facing interviews)	
14. Interviewing skills (conducting interviews)	

Attributes	
(a) Written communication	(b) Oral communication
1. Correct spelling	1. Clarity of ideas
2. Proper punctuation	2. Concise language
3. Correct grammar	3. Humor
4. Clearly expressed ideas	4. Persuasiveness
5. Word choice (vocabulary)	5. Vocal fluency
6. Organization	6. Articulation
7. Well-developed paragraphs	7. Tone
8. Concise language	8. Posture
9. Technical jargon explained	9. Eye contact
10. Syntax	10. Rapport
	11. Composure
	12. Confidence

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one-year experience) for purpose of Part E, which required respondents to evaluate the communication abilities of ELAs. Parts B, C, and D of the questionnaire pertained to the frequency of communication tasks, importance of communication skills, and importance of communication attributes, respectively. Questions in Parts B through E were designed based on the TSA lists developed under the first objective. When developing the questionnaire, special care was taken to avoid drawbacks highlighted by Siriwardane and Durden (2014). For example, to avoid confusion between "formal" and "informal" writing tasks, we used the term "general correspondence" instead of "informal", and we provided examples to further clarify our intentions, e.g. "*Writing general correspondence (memoranda, letters, notes) to …*" We also provided explanations where deemed necessary, e.g. "*Listening responsiveness (acting appropriately to messages received).*" In parts B through E, respondents were asked to indicate their response on a five-point scale (for frequency questions, 1 ("never") to 5 ("always"); for importance questions, 1 ("totally unimportant") to 5 ("totally important"); for performance questions, 1 ("very poor") to 5 ("very good")). The questionnaire was first tested by two professional accountants and then refined based on their feedback.

It is important to note that of the 59 responses received, only 53 were usable. We test for non-response bias by analyzing whether the early (n = 26) and late (n = 27) respondents differ in their responses. The analysis revealed only one statistically significant difference: assessment of ELAs' performance in reading speed was rated higher by early respondents than by late respondents (3.46 vs. 3.07, p-value = 0.03). Responses of early vs. late respondents also differ marginally for (a) frequency in writing instructions and procedures (2.46 vs. 2.96, $p = 0.07$), (b) importance of interviewing skills (facing) (3.34 vs. 2.89, $p = 0.07$), and (c) performance in creating visual aids (3.42 vs. 3.04, $p = 0.08$). Overall, the findings suggest that non-response bias is not critical in this pilot study.

3. Results

Of the 53 respondents, 22 are in public accounting, 22 are in company accounting (financial, internal auditing, and cost/management accounting), and the remaining nine are in other career subpaths such as government and tax accounting. Most of the respondents are fairly experienced: 70 percent have 10 years or more experience, 21 percent have six to nine years of experience, and nine percent have two to five years of experience. We performed separate MANOVAs with the participants' responses on the frequencies of written and oral communication tasks, the importance of communication skills, written-communication and oral-communication attributes, and ELAs' performance as dependent variables, and respondent type (public vs. non-public accountants; $n = 22$ vs. n = 31) as the independent variable. The results reveal no significant differences in responses between public accountants and non-public accountants.[1] As such, for subsequent analysis purposes we combine the responses of both respondent groups.

For each category surveyed (frequencies of written and oral communication tasks, importance of written and oral communication tasks, importance of communication skills, importance of attributes of written and oral communication), we tested whether the respondents' average assessments are statistically different at a p-value of 0.05 from the mid-point value of the scale used in the ratings. The respondents' average ratings and the results of one-sample t-tests are shown in Tables 2–7.

3.1. Frequency of tasks

According to our respondents, the most commonly performed written communication task is preparing work papers, followed by writing electronic messages, and preparing numerical schedules and statements with narratives. Writing non-numerical reports (technical and non-technical) and writing formal correspondence are ranked as the least frequently performed written communication tasks.

[1] For frequency of written communication tasks, F = 1.20, df = 42, $p = 0.32$. For frequency of oral communication tasks, F = 1.21, df = 37, $p = 0.37$. For the importance of communication skills, F = 1.51, df = 25, p = 0.15. For the written-communication attributes, F = 1.78, df = 42, $p = 0.09$. For the oral-communication attributes, F = 0.53, df = 40, $p = 0.89$. For the ELAs' performance, F = 0.47, df = 27, $p = 0.54$.

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Table 2
Respondents' average assessment of frequency of written communication tasks performed by ELAs (measured using a Likert-type scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always).

	Written communication task	Mean frequency	Std. deviation
1	Preparing working papers	4.13*	0.96
2	Writing electronic messages	4.11*	0.89
3	Preparing numerical schedules and statements with narratives	3.81*	0.96
4	Writing general correspondence to accountants	3.77*	0.93
5	Writing general correspondence to non-accountants	3.62*	0.90
6	Documenting systems	3.51*	1.12
7	Writing instructions and procedures	2.72**	1.01
8	Writing non-numerical, non-technical reports	2.60**	0.72
9	Writing non-numerical, technical reports	2.60**	0.79
10	Writing formal correspondence	2.57**	0.87

* Mean is significantly above mid-point of 3 ($P < 0.05$) based on one-sample *t*-test.
** Mean is significantly below mid-point of 3 at ($P < 0.05$) based on one-sample *t*-test.

Table 3
Respondents' average assessment of frequency of oral communication tasks performed by ELAs (measured using a Likert-type scale: 1 = Never, 2 = Rarely, 3 = Some times, 4 = Often, 5 = Always).

	Oral communication task	Mean frequency	Std. deviation
1	Engaging in informal discussions	3.64*	0.83
2	Conducting telephone conversations	3.32*	0.92
3	Receiving oral feedback	3.30*	0.95
4	Conveying general information to clients and colleagues	3.19	0.83
5	Asking questions in meetings	3.09	0.79
6	Answering questions in meetings	2.85	0.63
7	Conveying technical information to clients and colleagues	2.79	0.79
8	Conducting client interviews	2.68**	1.00
9	Conducting small group meetings	2.62**	0.86
10	Giving instructions	2.55**	0.64
11	Conducting teleconferences	2.49**	0.82
12	Giving formal presentations to accountants using visual aids	2.21**	0.72
13	Giving formal presentations to non-accountants without using visual aids	2.25**	0.83
14	Giving formal presentations to non-accountants using visual aids	2.23**	0.91
15	Giving formal presentations to accountants without using visual aids	2.26**	0.88

* Mean is significantly above mid-point of 3 at *P*-value of 0.05 based on one-sample *t*-test.
** Mean is significantly below mid-point of 3 at *P*-value of 0.05 based on one-sample *t*-test.

Table 2 summarizes the average rating for each written communication task analyzed. Average frequency for six out of the 10 written communication tasks is statistically above the mid-point, indicating that ELAs perform these tasks frequently. The following skills are performed infrequently (frequency of each of these tasks is statistically below the mid-point): writing instructions and procedures; writing non-numerical reports (both technical and non-technical); and writing formal correspondence. The infrequent written communication tasks are those that are likely to be performed by more experienced accountants than ELAs.

Table 3 provides comparable information for oral communication tasks. The most frequently performed oral communication task is engaging in informal discussions, followed by conducting telephone conversations and receiving oral feedback. Indicated frequency of each of these three tasks is statistically above the midpoint. Frequency of conveying technical and non-technical information to colleagues and clients and asking and answering questions in meetings are not significantly different from the mid-point. All the other oral communication tasks considered are performed at a frequency below the mid-point. The four least frequently performed oral communication tasks are all related to giving

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Table 4
Respondents' average assessment of importance of communication skills to ELAs (measured using a Likert-type scale: 1 = Totally unimportant, 2 = Somewhat unimportant, 3 = Neutral, 4 = Somewhat important, 5 = Totally important).

	Communication skill	Mean importance	Std. deviation
1	Listening responsiveness	4.36*	0.68
2	Listening attentiveness	4.28*	0.63
3	Reading comprehension	4.23*	0.78
4	Paraphrase	4.13*	0.79
5	Formal writing skills	4.06*	0.82
6	Ability to locate information	4.02*	0.69
7	Separate facts from inference	4.00*	0.78
8	Informal writing skills	3.91*	0.88
9	Informal speaking skills	3.85*	0.91
10	Cultural sensitivity	3.81*	0.81
11	Acknowledge different viewpoints	3.79*	0.72
12	Audience awareness	3.79*	0.91
13	Non-verbal behaviors	3.77*	0.83
14	Formal presentation skills	3.70*	1.07
15	Reading speed	3.55*	0.91
16	Ability to persuade	3.50*	0.87
17	Avoid ethnocentrism	3.47*	0.89
18	Professional network	3.40*	0.97
19	Bi-lingual skills	3.34*	0.88
20	Typing speed	3.23*	0.80
21	Ability to hold audience's attention	3.19	0.92
22	Create visual aids	3.19	0.94
23	Interviewing skills (facing)	3.11	0.93
24	Negotiation skills	3.09	1.01
25	Interviewing skills (conducting)	3.08	0.98

* Mean is significantly above mid-point of 3 at *P*-value of 0.05 based on one-sample *t*-test.

Table 5
Respondents' average assessment of importance of written-communication attributes to ELAs (measured using a Likert-type scale: 1 = Totally unimportant, 2 = Somewhat unimportant, 3 = Neutral, 4 = Somewhat important, 5 = Totally important).

	Written communication attribute	Mean importance	Std. deviation
1	Clearly expressed ideas	4.47*	0.54
2	Correct grammar	4.17*	0.61
3	Concise language	4.15*	0.74
4	Correct spelling	4.09*	0.74
5	Organization	4.08*	0.70
6	Technical jargon explained	3.98*	0.77
7	Word choice	3.92*	0.70
8	Proper punctuation	3.91*	0.81
9	Well-developed paragraphs	3.87*	0.81
10	Syntax	3.68*	0.85

* Mean is significantly above mid-point of 3 at *p*-value of 0.05 based on one-sample *t*-test.

formal presentations (with/without visual aids) to accountants and non-accountants. All tasks related to formal presentations received frequency ratings below 2.5. The average frequency rating for oral communication tasks is lower than the average frequency for written communication tasks, indicating that ELAs spend more time on writing-related activities than speaking-related activities. For oral communication tasks, there are more infrequent tasks than frequent tasks. Again the nature of the infrequent tasks is largely those expected to be conducted by more experienced accountants than by ELAs. It seems as if ELAs generally have fewer opportunities or needs to formally engage external parties (such as clients) in verbal communication.

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Table 6
Respondents' average assessment of importance of oral-communication attributes to ELAs (measured using a Likert-type scale: 1 = Totally unimportant, 2 = Somewhat unimportant, 3 = Neutral, 4 = Somewhat important, 5 = Totally important).

	Oral communication attribute	Mean importance	Std. deviation
1	Clarity of ideas	4.30*	0.61
2	Confidence	4.26*	0.59
3	Concise language	4.09*	0.71
4	Rapport	4.04*	0.68
5	Eye contact	3.98*	0.69
6	Composure	3.98*	0.72
7	Vocal fluency	3.94*	0.63
8	Articulation	3.94*	0.74
9	Persuasiveness	3.87*	0.71
10	Tone	3.81*	0.68
11	Posture	3.74*	0.86
12	Humor	3.28*	0.60

* Mean is significantly above mid-point of 3 at *p*-value of 0.05 based on one-sample *t*-test.

3.2. Importance of specific skills

Table 4 provides descriptive statistics related to the perceived importance of communication skills to ELAs. Since some skills are common to both written and oral communication, we did not separate the skills into written and oral. The three most important communication skills are: listening responsiveness, listening attentiveness, and reading comprehension. The three least important skills are: conducting an interview (interviewer), negotiating, and facing an interview (interviewee). Ability to create visual aids is ranked as 22 out of 25, and this is consistent with the finding (in the previous section) that giving formal presentations with visual aids is not a task ELAs perform frequently. Table 4 indicates that most of the identified communication skills are deemed to be important for ELAs (average importance rating is statistically above the mid-point) except for those that relate to creating visual aids, holding the attention of the audience, negotiation, and interview.

3.3. Importance of specific attributes

In the survey, writing and speaking attributes were considered separately (Tables 5 and 6 provide summarized results); however, for both writing and speaking, clarity of ideas is the most important attribute. For writing, correct grammar and concise language are the next most important attributes, and for speaking, confidence and concise language are the second and the third most important attributes. Even the least important attribute of writing, syntax, received an importance rating of 3.7, indicating that every attribute considered is deemed important. The least important attribute of speech is humor. The importance of all attributes is significantly above the mid-point, indicating that it is important for ELAs to possess *all* the specified attributes for written and oral communication. This reinforces the importance for accountants to possess good communication attributes, which are essential for conducting their work and advancing their career.

3.4. Performance of ELAs

Table 7 summarizes the findings pertaining to the perceived performance of ELAs in terms of the specified list of communication skills. Out of the 25 skills considered, the ELAs received a rating of "acceptable" (3 out of 5 or better) for 19 skills. The best performance rating is for the ability to locate information, followed by typing speed, and informal speaking skills. Negotiation has the lowest performance rating, followed by interviewing (conducting) skills and networking skills. Based on the performance rating alone, there seems to be no major concerns related to ELAs' communication skills. However, when the performance ratings are analyzed in light of the corresponding importance ratings, results are not as promising. Table 8 summarizes the average difference between respondents' importance

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Table 7
Respondents' average assessment of the performance of ELAs (measured using a Likert-type scale: 1 = Very poor, 2 = Poor, 3 = Acceptable, 4 = Good, 5 = Very good).

	Performance	Mean performance	Std. deviation
1	Ability to locate information	3.49*	0.85
2	Typing speed	3.40*	0.60
3	Informal speaking skills	3.40*	0.74
4	Listening attentiveness	3.34*	0.62
5	Reading comprehension	3.28*	0.63
6	Reading speed	3.26*	0.65
7	Listening responsiveness	3.26*	0.71
8	Informal writing skills	3.23*	0.61
9	Create visual aids	3.23*	0.80
10	Acknowledge different viewpoints	3.22*	0.72
11	Avoiding ethnocentrism	3.20	0.79
12	Cultural sensitivity	3.19	0.81
13	Bi-lingual skills	3.17	0.64
14	Separate facts from inference	3.17	0.73
15	Responding to non-verbal behaviors	3.15	0.69
16	Audience awareness	3.15	0.77
17	Formal presentation skills	3.13	0.76
18	Paraphrasing	3.09	0.81
19	Ability to hold audience's attention	3.02	0.82
20	Formal writing skills	2.98	0.69
21	Interviewing skills (facing interviews)	2.92	0.78
22	Ability to persuade	2.91	0.79
23	Creating a professional network	2.83	0.70
24	Interviewing skills (conducting interviews)	2.70**	0.80
25	Negotiation	2.64**	0.59

* Mean is significantly above mid-point of 3 at *P*-value of 0.05 based on one-sample *t*-test.
** Mean is significantly below mid-point of 3 at *P*-value of 0.05 based on one-sample t-test.

and performance assessments. Of the 20 items that have an average importance rating significantly above the mid-point, only five do not have a significant gap between importance and performance, suggesting there is room for improvement. Of the three communication skills with the largest importance–performance gaps (listening responsiveness, formal writing, and paraphrasing), listening responsiveness is on top of the importance list, and paraphrasing is the fourth most important.

Table 9 provides a summary (top and bottom three) of results for each category as well as for the importance–performance gap.

4. Discussion

Though preliminary (due to the small sample size and geographical limitation), seven findings have emerged from this study, and these findings have implications for relevant stakeholders. Some of our findings are consistent with results of previous studies, some contradict findings of previous research, and some pertain to TSAs that have never been examined before. The findings and their implications, as well as the comparison to findings of prior research (where applicable), are as follows:

a. **ELAs are engaged in written communication tasks more frequently than in oral communication tasks.** It is difficult to compare this finding with findings of prior studies, as none of the prior studies considered tasks separately from skills and attributes.
b. **Listening-related skills are the most important communication skills.** This finding is similar to all prior studies that examined listening skills. In our study, we examine listening responsiveness and attentiveness separately; listening responsiveness has a higher importance rating than attentiveness, even though the difference in importance between the two is statistically insignificant.
c. **Even though ELAs perform written communication tasks more frequently than oral communication tasks, oral communication skills top the (perceived) importance list.** In most prior studies

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Table 8
Average difference in respondents' importance and performance assessments.

	Communication skill	Mean difference between importance and performance assessments	Std. deviation
Items with average importance rating significantly above mid-point:			
1	Listening responsiveness	1.09*	0.99
2	Listening attentiveness	0.94*	0.86
3	Reading comprehension	0.94*	0.91
4	Paraphrase	1.04*	1.21
5	Formal writing skills	1.08*	0.94
6	Ability to locate information	0.53*	0.95
7	Separate facts from inference	0.87*	0.99
8	Informal writing skills	0.68*	0.90
9	Formal presentation skills	0.57*	1.03
10	Cultural sensitivity	0.62*	1.04
11	Acknowledge different viewpoints	0.57*	0.99
12	Audience awareness	0.64*	1.00
13	Non-verbal behaviors	0.62*	1.09
14	Informal speaking skills	0.45	1.14
15	Reading speed	0.28	1.15
16	Ability to persuade	0.60*	1.07
17	Avoid ethnocentrism	0.26	1.16
18	Professional network	0.57*	1.03
19	Bi-lingual skills	0.17	1.12
20	Typing speed	–0.17	0.89
Items with average importance rating significantly below mid-point:			
21	Ability to hold audience's attention	0.17	1.07
22	Create visual aids	–0.04	1.07
23	Interviewing skills (facing)	0.19	1.11
24	Negotiation skills	0.45*	1.10
25	Interviewing skills (conducting)	0.38*	1.13

* Mean is significantly different from zero at *p*-value of 0.05 based on one-sample *t*-test.

(Christensen & Rees, 2002; Gray & Murray, 2011), listening is classified as an oral communication skill. Based on the same classification, three out of the four most important communication skills (listening responsiveness, listening attentiveness, paraphrasing, or asking for clarification) in our study are oral communication skills. Christensen and Rees (2002) conduct the most recent survey of oral and written communication skills and report a similar observation – oral/interpersonal skills have a mean importance rating of 3.59, and writing skills have a mean importance rating of 3.25. Gray and Murray (2011, 289) report that in the New Zealand context, practitioners believe that "new graduates can be resistant to training in the area of oral communication, and this resistance may possibly be related to their under-estimation of the importance of oral communication skills." These findings will be of interest to undergraduate students who are contemplating an accounting degree and may also help clear up misconceptions that accounting graduates have about the importance of oral communication skills to the accounting profession. Furthermore, many prior research studies report that students who choose to major in accounting have higher than average levels of oral communication apprehension (Ameen, Jackson, & Malgwi, 2010; Meixner, Bline, Lowe, & Nouri, 2009). Those students who have oral communication apprehension should be properly counseled before they apply to accounting programs, thinking accounting is a "reserved" and "reclusive" career.

d. **Informal speaking tasks are performed frequently, and no less frequently than formal presentations.** Since prior studies did not distinguish between communication *tasks* and *skills*, we are unable to compare our findings with those of prior studies. However, many prior researchers have highlighted the importance of informal speaking skills over formal presentation skills. Though dated, Andrews and Sigband (1984) recommend that university courses should spend less time on formal speech presentation and communication theory, and more time on oral communication skills necessary for meetings, conferences, and conflict resolution. Recent studies of oral communication

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Table 9
Summary of findings.

Panel (A) Written communication tasks:	
Most frequently performed	Least frequently performed
Preparing working papers Writing electronic messages Preparing numerical schedules and statements with narratives	Writing non-numerical, non-technical reports Writing non-numerical, technical reports Writing formal correspondence
Panel (B) Oral communication tasks:	
Most frequently performed	Least frequently performed
Engaging in informal discussions Conducting telephone conversations Receiving oral feedback	Conveying technical information to clients and colleagues Giving formal presentations to non-accountants using visual aids Giving formal presentations to accountants without using visual aids
Panel (C) Communication skills:	
Most important	Least important
Listening responsiveness Listening attentiveness Reading comprehension	Interviewing skills (facing) Negotiation skills Interviewing skills (conducting))
Panel (D) Written communication attributes:	
Most important	Least important attributes
Clearly expressed ideas Correct grammar Concise language	Proper punctuation Well-developed paragraphs Syntax
Panel (E) Oral communication attributes:	
Most important attributes	Least important attributes
Clarity of ideas Confidence Concise language	Tone Posture Humor
Panel (F) ELAs' performance:	
Best performance	Worst performance
Ability to locate information Typing speed Informal speaking skills	Creating a professional network Interviewing skills (conducting interviews) Negotiation
Panel (G) Importance–performance gap:	
Largest gap	Smallest gap
Listening responsiveness Formal writing Paraphrasing	Creating visual aids[a] Typing speed, bi-lingual skills, ability to hold audience's attention[b]

[a] Performance rating is higher than the importance rating.
[b] All three have the same gap.

(Christensen & Rees, 2002 and Gray & Murray, 2011) do not distinguish between formal and informal speaking skills. However, according to the results of Gray and Murray (2011), "explaining or making a topic intelligible, and participating in meetings" is rated higher in importance than "giving presentations with visuals." Because practitioners are indifferent regarding the importance of informal speaking and formal presentation skills, there is nothing wrong with classroom assessments based on formal presentations; however the imminent need may be improving the informal speaking skills as ELAs will spend more time conducting informal-speaking related tasks, as opposed to giving formal presentations.

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e. **Formal writing tasks (in various forms) are the least frequently performed; however, the difference between the importance ratings of formal and informal writing skills is statistically insignificant.** This is an interesting finding. Even though done less frequently, whenever formal writing is undertaken, experienced practitioners expect formal writing to be of high quality. This suggests that employers expect ELAs to *already* be properly trained in formal writing when they start working. It justifies the need and the importance of the lengthy formal research papers and reports that are often assigned to undergraduate accounting students to help strengthen their formal writing skills, abilities to locate information, and separate facts from inference. Research findings related to the importance of writing attributes can be used in developing grading rubrics for formal research papers and reports.

f. **The most important attribute of speaking, as well as writing, is clarity.** These findings are consistent with extant research findings. Jones (2011) reports the most important writing skill needed by new hires (for accounting positions) is organizing information into effective sentences and paragraphs, and the second most important skill is writing clearly and precisely. While Christensen and Rees (2002, 5) do not examine the importance of clarity under oral/interpersonal skills, they find "writes well–clearly, concisely, correctly, and completely" as the most important writing skill. Their findings also highlight the importance of English skills; under English skills, they have mechanical elements of writing such as spelling, punctuation, vocabulary, and grammar.

g. **The largest importance–performance gaps exist in the five most important skills: listening responsiveness and attentiveness, reading comprehension, paraphrasing, and formal writing.** On the other hand, skills such as typing speed, creating visual aids, and ability to hold attention, which have the lowest importance–performance gaps, are either below or at the mid-point in the importance scale. This suggests that accounting programs and graduates need to review the communication skills that they should focus on and ensure that the skills that they spend time enhancing are indeed those that are critical to, and valued by, the accounting profession.

5. Conclusion

Communication skills, or lack thereof, of ELAs are undoubtedly a significant issue. The expectation that new accounting graduates should demonstrate skills beyond technical accounting knowledge has been known for many decades. Business communication educators, as well as accounting educators, have a key role in developing communication skills and outcomes for accounting graduates. Therefore, knowing the answers to questions about what kind of writing, speaking/presentation skills are important, and ensuring that these are developed in accounting students, is of crucial importance. Based on responses from a sample of accountants from Singapore, this research provides empirical data identifying specific communication skills and attributes considered important to entry-level practice. Our findings also highlight some of the skills that universities emphasize, but might not be required by the industry (especially the ability to create visual aids and give formal presentations), at least for Singapore ELAs.

The question is whether and how higher education institutions should modify their curricula and assessments to include the skills that have emerged in this study as being of critical importance. This is a valid question given that the most frequently undertaken tasks, and some of the most important skills, are of an informal nature. For example, the written and oral communication tasks that received the highest importance ranking (as perceived by practitioners) are preparing working papers and engaging in informal discussions, respectively. These are areas where students often receive limited guidance in their accounting program, and assessment is rarely undertaken. Especially in universities where only a business communication course is available (as opposed to an accounting communication course), accounting students may not have an opportunity to develop some of these accounting-specific communication skills, unless accounting educators integrate these skills into accounting courses. Accounting communication courses provide an overview of methods for researching, organizing, analyzing, and presenting information in an accounting context. They emphasize the ability to exchange technical information and ideas with colleagues and other professionals, and the ability to present written work products in the form of memos, letters, opinions, and reports. We are not

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aware of any business schools that offer business communication courses and accounting communication courses.

Findings of this study may have greater implications for developing oral communication skills than for developing written communication skills. Giving formal presentation is the least frequently performed oral communication task. Yet, at most universities, this is the most frequently practiced oral communication skill. Even with all such training, the ELAs' average performance rating, as reported by responding practitioners, is just above acceptable. Perhaps, it is time for universities to de-emphasize formal presentations. When formal presentations are used, they should be evaluated based on speaking attributes that are the most important to the profession. More important, universities should find ways to sharpen graduates' informal speaking skills. Rather than using group presentations where students practice and give a formal presentation, often using visual aids, role playing can be used. For example, students can assume a role (management accountant, auditor, etc.) and practice communicating results to different audiences (non-accounting members of the management team, client, regulatory bodies, etc.). Rather than answering textbook questions such as, "[E]xplain the tax advantage of allocating too much to the building and too little to the land" (Horngren, Harrison, & Oliver, 2009), students could be asked to explain, through an email or a letter, a financial accounting concept or standard that gives the client a tax advantage.

Writing formal reports, a communication-related assessment commonly used by universities, is another area worthy of attention. While formal writing is one of the ELA's least frequently undertaken tasks, formal writing skills are nevertheless highly valued by responding practitioners. Despite all the training university students receive, formal writing skills show the second highest importance–performance gap in our survey. This could be due to three possible reasons: (a) accounting/communication educators are not emphasizing the writing attributes that are deemed critical in the industry; (b) expectations of practitioners are too high; and/or (c) accounting students are not taking the importance of communication skills seriously. The importance of writing attributes that we report in this study can help alleviate the first problem if business communication and accounting educators develop learning objectives and grading rubrics (for written assignments) that emphasize the development of attributes that practitioners value most. If practitioners have expectations that universities are not able to meet, then accounting firms may have to develop training programs for their ELAs as well as employees at other career stages. If students are ignorant about the importance of the communication skills, educators should take a proactive approach to share research findings with their students and arrange for guest speakers (accounting practitioners) who can share their expectations with students.

A personal portfolio approach suggested by Morgan (1997) may be an effective solution. This would involve developing a statement of written and oral communication competencies required of accounting students and the kind of evidence necessary to show relevant learning (Morgan, 1997, 105). Accounting educators can provide the framework for the personal portfolio, using the findings of the present research study. Making pedagogical recommendations is beyond the scope of this research, yet our findings will provide direction for other researchers and educators who are developing new pedagogies.

It is also important to note that the importance ratings of the TSAs will change as accountants become more experienced and take on additional responsibilities. While the communication skills important at upper hierarchical levels may grow organically, accounting firms and professional accounting bodies will need to identify communication needs and gaps of accountants and develop necessary training programs to facilitate their career advancement.

Since this research is a preliminary study, which should be duplicated using larger samples across various geographical locations in order to generalize the findings, it is important to identify the limitations and ways to improve future research designs. The first, and the most obvious limitation, is the small sample size. This may explain our findings of no significant differences in responses between public accountants and non-public accountants. Future research can investigate whether differences exist between accountants in different roles such as public accounting, company financial accounting, company cost/management accounting, internal auditing, and so on. The second is the limited geographic reach. Communication issues examined in our study are not language-specific but relate to how accountants as professionals communicate with others. As such, our findings probably are not

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Singapore-specific as communicating with others in a professional capacity is a primary and daily function performed by accountants everywhere. While we are confident that Singapore reflects both the global business and higher education environments, similar studies should be conducted in other countries, especially in the US where a communication skill study (addressing both written and oral) has not been reported since 2002. Another limitation of our study is that we did not give the participants the option to indicate other TSAs that they think are important. While we conducted an extensive literature review, the TSAs examined in our study may not necessarily be exhaustive. In addition, while we tried to clarify the TSAs we examined using examples and synonyms, some of the terms in our survey may not have been defined, especially in the attributes section.

The TSA inventory developed in this study can be used as the starting point for developing a competency map. Kavanagh and Drennan (2008), Bui and Porter (2010), and Tempone et al. (2012) have reported on the existence of skills–expectation gaps related to generic communication competencies of accounting graduates. Using the newly developed TSA list (and refining it by removing less frequently performed tasks and less important skills), future researchers can identify skills–expectation gaps related to accounting-specific communication competencies.

Finally, as the accounting profession and practice continue to evolve, and new modes of communication continue to emerge, there is a need to continuously evaluate the communication TSAs that are crucial to the profession. Communication skills have continued to challenge accountants for many years despite universities' best efforts. This research highlights the importance of understanding industry needs and developing curricula and assessments to suit those needs. Clearly, there is much that still needs to be done. Through more research and collaboration among educators (both accounting and communication), practitioners, and accounting students, a new breed of accountants may arise – technically sound accountants who are good communicators.

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References

Accounting and Corporate Regulatory Authority (ACRA) (2013). *Register as a public accountant*. <http://www.acra.gov.sg/Public_Accountant/Application/Public_Accountant/Register+as+a+Public+Accountant.htm> Accessed 31.01.14.

AccountingWeb (2012). *Accountemps survey: Lack of communication is top management mistake*. <http://www.accountingweb.com/topic/education-careers/accountemps-survey-lack-communication-top-management-mistake> Accessed 12.12.14.

Addams, L. H. (1981). Should the Big 8 teach communication skills? *Management Accounting*, *62*(11), 37.

Ameen, E., Jackson, C., & Malgwi, C. (2010). Student perceptions of oral communication requirements in the accounting profession. *Global Perspectives on Accounting Education*, *7*, 31–49.

Andrews, J. D., & Koester, R. J. (1979). Communication difficulties as perceived by the accounting profession and professors of accounting. *The Journal of Business Communication*, *16*(2), 33.

Andrews, J. D., & Sigband, N. B. (1984). How effectively does the new accountant communicate? Perceptions by practitioners and academics. *The Journal of Business Communication*, *21*(2), 15.

Benson, B. J. (2014). Domain of competence: Interpersonal and communication skills. *Academic Pediatrics*, *14*(2 Suppl.), S55.

Bui, B., & Porter, B. (2010). The expectation-performance gap in accounting education: An exploratory study. *Accounting Education: An International Journal*, *19*(1), 23–50.

Byrne, S., & Pierce, B. (2007). Towards a more comprehensive understanding of the roles of management accountants. *European Accounting Review*, *16*(3), 469–498.

Cameron, C., & Dickfos, J. (2014). 'Lights, Camera, Action!' Video technology and students' perceptions of oral communication in accounting education. *Accounting Education: An International Journal*, *23*(2), 115–118.

Christensen, D. S., & Rees, D. (2002). An analysis of the business communication skills needed by entry-level accountants. *Mountain Plains Journal of Business and Economics*, *Fall*, 1–13.

Conrad, D., & Newberry, R. (2012). Identification and instruction of important business communication skills for graduate business education. *Journal of Education for Business*, *87*(2), 112–120.

Gingras, R. (1987). Writing and the certified public accountant. *Journal of Accounting Education*, *5*, 127–137.

Goby, V., & Lewis, J. H. (1999). Auditors' communication requirements: A study of five MNCs in Singapore. *Business Communication Quarterly*, *62*(4), 41–52.

Gray, F. E. (2010). Specific oral communication skills desired in new accountancy graduates. *Business Communication Quarterly*, *73*(1), 40–67.

Please cite this article in press as: H.P. Siriwardane, K.-Y. Low, D. Blietz, Making entry-level accountants better communicators: A Singapore-based study of communication tasks, skills, and attributes, J. of Acc. Ed. (2015), doi: 10.1016/j.jaccedu.2015.08.001

Gray, F. E., & Hamilton, L. (2014). Communication in accounting education, accounting education. *An International Journal*, *23*(2), 115–118. doi:10.1080/09639284.2013.847327.
Gray, F. E., & Murray, N. (2011). "A distinguishing factor": Oral communication skills in new accountancy graduates. *Accounting Education: An International Journal*, *20*(3), 275.
Hanson, G. A. (1987). The importance of oral communication in accounting practice. *The CPA Journal*, *57*(12), 118–122.
Hiemstra, K. M., Schmidt, J. J., & Madison, R. L. (1990). Certified management accountants: Perceptions of the need for communication skills in accounting. *Business Communication Quarterly*, *53*(4), 5–9.
Hopwood, A. G. (1983). On trying to study accounting in the contexts in which it operates. *Accounting, Organizations and Society*, *8*(2), 287.
Horngren, C., Harrison, W., & Oliver, M. S. (2009). *Financial and management accounting*. NJ: Pearson Education International.
Ingram, R. W., & Frazier, C. R. (1980). *Developing communication skills for the accounting profession*. Sarasota, FL: American Accounting Association.
International Federation of Accountants (IFAC), (2003), *IEP2: Towards competent professional accountants*. <http://www.ifac.org/sites/default/files/publications/files/iep-2-towards-competent.pdf> Accessed 31.01.14.
Jones, C. G. (2011). Written and computer-mediated accounting communication skills: An employer perspective. *Business Communication Quarterly*, *74*(3), 247–271.
Juchau, R., & Galvin, M. (1984). Communication skills of accountants in Australia. *Accounting and Finance*, *24*, 17.
Kavanagh, M. H., & Drennan, L. (2008). What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations. *Accounting & Finance*, *48*, 279–300.
Levenson, L. (2000). Disparities in perceptions of generic skills: Academics and employer. *Industry and Higher Education*, *14*(3), 157–164.
Lin, P., Grace, D., Krishnan, S., & Gilsdorf, J. (2010). Failure to communicate. *The CPA Journal*, *80*(1), 63–65.
McLaren, M. C. (1990). The place of communication skills in the training of accountants in New Zealand. *Accounting and Finance*, *30*(1), 83.
Meixner, W. F., Bline, D., Lowe, D. R., & Nouri, D. (2009). An examination of business student perceptions: The effect of math and communication skill apprehension on choice of major. *Advances in Accounting Behavioral Research*, *12*, 185–200.
Moncada, S. M., Nelson, S. J., & Smith, D. C. (1997). Written communication frequently composed by entry-level accountants. *New Accountant*, *12*(4), 26–28.
Morgan, G. J. (1997). Communication skills required by accounting graduates: practitioner and academic perceptions. *Accounting Education: An International Journal*, *6*(2), 93–107.
Nellermoe, D. A., Weirich, T. R., & Reinstein, A. (1999). Using practitioners' viewpoints to improve accounting students' communications skills. *Business Communication Quarterly*, *62*(2), 41–60.
Pathways Commission on Accounting Higher Education, (2012). *Charting a national strategy for the next generation of accountants*. <http://commons.aaahq.org/groups/2d690969a3/summary> Accessed 13.11.14.
Siriwardane, H. P., & Durden, C. H. (2014). The communication skills of accountants: What we know and the gaps in our knowledge. *Accounting Education – An International Journal*, *23*(2), 119–134. doi:10.1080/09639284.2013.847329.
Spitzberg, B. H., & Cupach, W. R. (1984). *Interpersonal communication competence*. Beverly Hills: SAGE Publications.
Stowers, R. H., & White, G. T. (1999). Connecting accounting and communication: A survey of public accounting firms. *Business Communication Quarterly*, *62*(2), 23–40.
Sundem, G. L., & Williams, D. Z. (1992). Changes in accounting education: Preparing for the twenty first century. *Accounting Education*, *1*(1), 56–61.
Tempone, I., Kavanagh, M., Segal, N., Hancock, P., Howieson, B., & Kent, J. (2012). Desirable generic attributes for accounting graduates into the twenty-first century: The views of employers. *Accounting Research Journal*, *25*(1), 41–55.
Wilson, R. M. S. (1992). Accounting education: A statement of intent and a tentative agenda. *Accounting Education*, *1*(1), 3–11.
Zaid, O. A., & Abraham, A. (1994). Communication skills in accounting education: Perceptions of academics, employers and graduate accountants. *Accounting Education: An International Journal*, *3*(3), 205–221.

Please cite this article in press as: H.P. Siriwardane, K.-Y. Low, D. Blietz, Making entry-level accountants better communicators: A Singapore-based study of communication tasks, skills, and attributes, J. of Acc. Ed. (2015), doi: 10.1016/j.jaccedu.2015.08.001