JOURNAL OF EDUCATION FOR BUSINESS, 86: 186–194, 2011

ISSN: 0883-2323
DOI: 10.1080/08832323.2010.497819

Routledge
Taylor & Francis Group

Business Communication Skills in Information Systems (IS) Curricula: Perspectives of IS Educators and Students

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As the importance of communication skills for students, regardless of their disciplines, becomes evident, it is important to determine whether colleges provide students with adequate opportunities to acquire such skills. The authors compared information systems (IS) educator and student perceptions of communication skills in IS curricula. Gender, discipline, position and student classification, and school size were among the variables that were examined. Results showed that educators and students agreed that IS curricula had the appropriate emphasis on many of the communication skills. However, the two groups significantly differed on their extent of agreement or disagreement with appropriate level of emphasis and the number of courses that cover such communication skills. Results revealed that educators felt there were a few communication skills, such as proofreading, listening, facilitating meetings, and using interpersonal skills with external customers and management, that needed more emphasis in the IS curriculum. Implications for educators and researchers are reported.

Keywords: communication skills, IS curricula, IS skills, soft skills

The issue of needing communication and interpersonal skills is not new. Communication skills continue to top recruiters' lists of desired attributes for prospective employees; this is true even when the list includes the hard skills necessary to perform a specific job. Additionally, the lack of communication skills is in the list of top workplace frustrations. This is an issue of such importance that employers spend much money on training for their employees, once they are hired and throughout their careers, to help improve communication skills.

In the information systems (IS) field, it is imperative that a computer professional be able to communicate with customers to serve their needs. Customers do not always speak in computer terms, and it is necessary for the IS professional to understand the language of the customer's business so that proper communication can occur. The IS professional must then translate the business needs of the customer into computer terms and communicate this information to other IS professionals who then design and implement a solution to the business problem. If communication breaks down at any of these steps, the system required and the system delivered can be two completely different systems.

As the importance of communication skills for students, regardless of their disciplines, continues to be a prominent theme of recruiters, the question that must be addressed is whether colleges provide students with adequate opportunities to acquire such skills. In looking at the issue, various points of view should be considered. College administrators and faculty have their opinions about the adequacy of the communication skills training they are providing, and students may have similar or different opinions about the adequacy of the communication skills training they are receiving. In cases where there are differences of opinion, it is helpful to determine why those differences exist.

Thus, we attempted to explore and compare perceptions of communication skills in IS curricula between IS educators and students. More specifically, the following research questions were formulated:

Research Question 1: Are there significant differences in perceptions of coverage and emphasis of communication skills in IS curricula between IS educators and students?

Research Question 2: Do external variables influence educator and student perceptions of coverage and emphasis of communication skills in IS curricula?

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BACKGROUND PERSPECTIVES

Increasingly, growing globalization, technological developments, and competitive pressures contribute to a more complex business environment. In addition to hard skills, such as capability to perform specific job tasks, effective business communication skills help to minimize mistakes, which consume time and money. The cost of miscommunication contributes to lost productivity, which cannot be directly calculated (Catt, Miller, & Hindi, 2005).

Professional career growth and lifetime employability are valued personal goals for persons in the workforce. Glenn (2008) noted three critical business skills necessary for career success. In addition to learning and analytical capabilities, she emphasized the importance of good communication skills, including making sure that others comprehend messages. In discussions of essential job-related skills, *Keying In*, a newsletter sponsored by the National Business Education Association (NBEA; 2001), included comments by various business leaders who stressed the importance of communication skills as key factors in employment.

In today's business world, economic and competitive factors have led to greater numbers of mergers and acquisitions. According to an HRFocus (2000) survey, communication was a primary consideration in resolution of problems and implementation of beneficial strategies resulting from these business combinations. Paterson (2000) reported results of a PricewaterhouseCoopers survey that indicated that relevant postdeal communication was a significant ingredient to gain employee commitment in mergers and acquisitions.

Characteristically, job seekers use a combination of experience, educational achievements, and personal abilities to communicate about themselves during the employment process. Employers recognize the importance of employees in attainment of organizational goals and seek to hire persons who will be successful at their jobs. Communication-related characteristics seem to be perceived as being very relevant to employers. As reported by Beta Gamma Sigma (2005), a survey sponsored by the Graduate Management Admission Council (GMAC) revealed strong communication and interpersonal skills as the most important characteristic sought by employers of MBA graduates. The National Association of Colleges and Employers (NACE; 2007) noted that written and verbal communication skills were at the top of candidate skills preferred by employers for the eighth straight year. Results of a Wall Street Journal/Harris Interactive survey (Alsop, 2005) indicated that communication and interpersonal skills were the top-ranked attribute sought by employers.

Although merits of communication acumen are widely acclaimed, Page (2005), a former dean at four business schools, observed that business schools did not give sufficient emphasis to training in communication. Even though top business schools may give more attention to communication in their curricula, he argued that many business schools gave inadequate focus to it. Knight (1999) surveyed communication offerings at 52 top business schools. Thirty-six of these schools required upper-division writing requirements, and 25 of them taught business communication courses at their business schools. Wardrope and Bayless (1999) examined responses from 229 individuals belonging to the Association for Business Communication who ranked the importance of 30 business communication concepts. Top-ranked concepts related to written business communication; proper usage of grammar and sentence structure was ranked first among all of the concepts. In recognition of the importance given to communication by employers, West (2006) introduced development of a cover letter into her class to combine course-content instruction with an attempt for improvement of written communication by students.

For IS professionals, career progress commonly necessitates combining both technical and soft skills, including interpersonal, written, and verbal communication capabilities. As noted by Litecky, Arnett, and Prabhakar (2004), research studies reflected various conclusions regarding the type of skills desired by employers. While noting that interpersonal and written communication were among the top competencies perceived to be important by employers, a New Zealand study by Hodges and Burchell (2003) found considerable differences between importance of job competencies and actual job performance, especially in the area of written communication. Zekeri (2004) contacted former college students who graduated from Southern land-grant colleges and asked them about the most valuable skills learned in college that improved success in their professional careers. Written and oral communication were among the top three competencies noted by respondents.

Lee (2005) reviewed ads for systems analyst positions placed by Fortune 500 firms and found that communication skills were listed as a requirement by 71.6% of employers; interpersonal skills were stated as essential in 66% of the ads. Todd, McKeen, and Gallupe (1995) examined advertisements for IS professionals that appeared in two United States and two Canadian newspapers between 1970 and 1990. They found communication skills to be increasingly important for programmers and systems analysts over this time period. For IS managers, technical skills were predominately less important than interpersonal and managerial skills in most cases. Noll and Wilkins (2002) conducted a study to learn about expected job skills needed by programmers, end-user support personnel, and analysts. They concluded that soft skills, such as writing, interpersonal relations, and delivery of presentations, were of increasing relevancy in all of the IS areas.

In a study involving preferred skills for entry-level IT personnel, Simon, Kaiser, Beath, Goles, and Gallagher (2007) found that communication (26% of responses) was tied for the top-ranked preference among large firms. Voice/data communication (24% of responses) and communication skills (19% of responses) were at the top of desired skills among small and medium-sized enterprises. Young and Lee

(1997) surveyed firms that recruited IS graduates and were listed in Dun and Bradstreet's Career Guide and the National Job Bank. Top-ranked interpersonal skills preferences were verbal skills, cross-functional group work, and written communication skills.

Educational institutions play integral roles in preparation of students for professional careers. In reality, evolving technology and changes in the nature of jobs necessitate continual learning. Zweig et al. (2006) reported viewpoints collected from 81 IT executives at 77 IT departments in a variety of industries. Although various perspectives emerged regarding IT issues, an interesting observation about communication prevailed. "When asked what was missing from entry-level skill candidates, most respondents said 'communication skills'" (p. 104). Kung, Yang, and Zhang (2006) reviewed IS undergraduate programs in the United States and observed that colleges and universities commonly attempted to include coverage of soft skills in IS capstone courses, which were offered in approximately half of the programs. Considering viewpoints of IS users, staff, and managers, curriculum content of business schools focused on these soft skills may be appropriate. Miller and Luse (2004) surveyed a sample of these three groups of professionals and found that coherent writing ranked as the most-important writing skill. The top oral communication skill was the ability to ask appropriate questions, and the number one interpersonal-communication skill was the ability to accomplish assignments.

Ideally, the curriculum focus of business schools is designed to prepare students for their professional careers. Abraham and Karns (2009) conducted a study of businesses and business schools. Although they found similar perspectives toward identification of competencies perceived to be important for successful managers and graduates, the business school curricula did not stress these same competencies that were considered to be representative of very successful managers. It may be relevant for business educators to develop relationships with the business community and review content of curriculum offerings.

During the past few years, many information technology–focused business programs experienced declining student enrollments. To examine perceptions of faculty and IT managers, Aasheim, Li, and Williams (2009) surveyed 350 managers and 78 faculty who taught courses related to the information technology area. The managers attributed more importance to topics that included hardware knowledge, leadership abilities, and software capabilities. However, there were no significant differences in perceptions of importance in areas such as technical, organizational, and interpersonal skills.

Recognizing a tendency for business school offerings to be contemporary and responsive to employment trends, Martz and Cata (2008) examined views of IS students and IS practitioners. Students tended to undervalue foundational skills, such as critical thinking and communication and overvalue IS-specific skills that included programming and networking. Interestingly, students had a higher rating for the practice of outsourcing and, as compared with practitioners, considered it to be representative of greater value.

METHOD

Survey Questionnaire

The survey questionnaire consisted of three sections. The first section requested various types of demographic information, including gender, discipline, position and classification, and school size, among other variables. The second section included educator and student perceptions regarding the emphasis and coverage of different communication skills by the IS curricula. The list of communication skills was adapted and modified from several sources, such as Hodges and Burchell (2003) and Wardrope and Bayless (1999). The survey instrument was developed, tested, reviewed for content as well as readability, and modified accordingly. Participants responded to statements on a 5-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) as well as a 4-point scale ranging from 4 (*none*) to 1 (*5 or more*). The third section included an open-ended question, "What other thoughts do you have regarding the role of business communication skills in the IS/MIS/CIS major at your university?"

Samples, Data Collection, and Statistical Techniques

The survey questionnaire was available on the Web for IS educators and students during fall 2008 and spring 2009. Fifty-nine IS educators and 83 students from different regions in the United States completed the survey. SPSS statistical software was used to compute frequencies, means, and percentages. In addition, an analysis of variance (ANOVA) analysis was used to test for significant differences between the two samples.

Data Analysis

Table 1 summarizes the frequency distributions of key demographic variables. A total of 80% of the educator sample was male, compared to 73% of the student sample. While the educator sample was from the information systems field, the majority of the student sample (75%) was information systems majors. A total of 36% of the educators were administrators, and 64% of the sample was faculty. With respect to the distribution of students, 24% of the sample was lower-level students (freshman and sophomore), compared with 76% being upper-level students (junior and senior). With respect to the size of institutions for the educator sample, 54% of the enrollments were in the range of 5,000–15,000, compared with 34% with over 15,000 students. For the student sample, on the other hand, 51% of the institutions had

TABLE 1
Frequency Distributions of Key Variables, by Sample

Variable	Educators ($n = 59$)		Students ($n = 83$)		Combined	
	Responses	%	Responses	%	Responses	%
1. Gender						
Male	47	79.7	61	73.5	108	76.1
Female	12	20.3	22	26.5	34	23.9
2. Discipline						
IS	59	100	62	74.7	112	85.2
Other	0	0	21	25.3	21	14.8
3. Educator position/student classification	21	35.6	20	24.1	NA	NA
Administrator/lower level Faculty/upper level	38	64.4	63	75.9		
4. Enrollment						
Under 5,000	7	11.9	42	50.6	49	34.5
5,000–15,000	32	54.2	41	49.4	73	51.4
Over 15,000	20	33.9	0	0	20	14.1
5. Course required						
Yes	43	72.9	67	80.7	110	77.5
No	16	27.1	16	19.3	32	22.5
6. Taught at business school						
Yes	38	88.4	63	94.0	101	91.8
No	5	11.6	4	6.0	9	8.2
7. Format						
Face-to-face	37	62.7	48	57.8	85	59.9
Online	16	27.1	16	19.3	32	22.5
Hybrid	6	10.2	19	22.9	25	17.6

enrollments under 5,000 students, compared with 49% with enrollments between 5,000 and 15,000 students.

On average, IS respondents served as educators for approximately 16 years and were employed with their present employer for about 13 years. The average number of years at their present position was six years. Approximately 73% of educators were tenured; about 41% of educators stated that the importance of communication skills remained the same during the past 5 years, compared with 59% who felt that these skills were growing in importance.

A total of 73% of educators, compared with 81% of students, reported that a communication course was required for IS majors. Additionally, 88% of educators, compared with 94% of students, indicated that the communication course was taught in the school of business. With respect to the course format, 63% of educators, compared with 58% of students, reported that the format was face-to-face. A total of 27% of educators, compared with 19% of students, indicated that the format was online. Only 10% of educators, compared with 23% of students, reported that the format was hybrid.

RESULTS

Results of the study are presented in two sections. The first section provides the answer for Research Question 1 (Are there significant differences in perceptions of coverage and emphasis of communication skills in IS curricula between IS educators and students?). In order to answer this research question, a comparison between educator and student perceptions using the ANOVA procedure was performed. In the second section, we provide the answer to Research Question 2 (Do external variables influence educator and student perceptions of coverage and emphasis of communication skills in IS curricula?) The ANOVA was used in order to account for possible effects of external variables such as gender, discipline, position and classification, enrollment, requirement of a business communication course, format of the course, and other variables.

Comparison of Educator and Student Perceptions

As shown in Table 2, students agreed that their IS curricula had the appropriate emphasis for all listed communication skills. On the other hand, IS educators felt neutral about the appropriate emphasis for proofreading, meeting facilitation, and interpersonal skills with external customers. With respect to the number of courses that included the listed communication skills, students reported that their curricula covered these skills in three or four courses, and educators indicated that proofreading, listening, meeting facilitation, and interpersonal skills with external customers and management were covered in one or two courses.

Seven significant differences in the appropriate emphasis of communication skills existed between educators and students, as shown in Table 2. There were four skills (2, 5, 7, and

TABLE 2
ANOVA Test Results for Educator and Student Responses

Statement	Educators ($n = 59$)		Students ($n = 83$)			
	M	*SD*	*M*	*SD*	*F*	Sig.
The emphasis on the following communication skills in the IS curriculum at our college is appropriate: 1 (*strongly agree*) to 5 (*strongly disagree*)						
1. Writing (grammar) skills	2.29	1.11	2.01	0.89	2.684	.104
2. Report writing skills	2.2	1.0	1.93	0.91	2.886	.092†
3. Proofreading skills	2.68	0.99	2.16	0.89	10.770	.001**
4. Teamwork skills	1.54	0.65	1.59	0.92	0.117	.732
5. PowerPoint skills	2.12	0.87	1.80	0.98	4.084	.045*
6. Oral presentation skills	1.76	0.82	1.72	0.91	0.056	.812
7. Listening skills	2.49	1.1	1.76	0.86	20.249	.000**
8. Meeting facilitation skills	2.85	1.0	1.96	0.87	29.794	.000**
9. Interpersonal skills with external customers	2.52	1.1	2.18	0.93	3.764	.054†
10. Interpersonal skills with colleagues	2.17	1.1	1.93	0.88	2.140	.146
11. Interpersonal skills with management	2.36	1.1	1.89	0.91	7.460	.007**
In the IS curriculum approximately how many courses cover the following communication skills: 1 (5 or more), 2 (3–4), 3 (1–2), 4 (0)						
12. Writing (grammar) skills	2.02	0.82	1.96	1.1	0.099	.754
13. Report writing skills	2.19	0.75	2.08	1.1	0.361	.549
14. Proofreading skills	2.95	0.83	2.22	1.2	16.928	.000**
15. Teamwork skills	1.53	0.67	1.61	0.92	0.397	.530
16. PowerPoint skills	1.97	0.85	1.82	0.95	0.896	.346
17. Oral presentation skills	1.66	0.71	1.82	0.98	1.125	0.291
18. Listening skills	2.63	0.86	1.92	1.1	16.715	0.000**
19. Meeting facilitation skills	2.93	0.79	2.17	1.2	18.466	0.000**
20. Interpersonal skills with external customers	2.76	0.83	2.20	1.0	11.722	0.001**
21. Interpersonal skills with colleagues	2.22	0.81	1.96	0.98	2.714	0.102
22. Interpersonal skills with management	2.71	0.89	2.02	1.0	16.815	0.000**

Note. df = 1, 139 for *F* values of statements 6, 9, 19, and 22; df = 1, 140 for all other *F* values.
†$p < .1$. *$p < .05$. **$p < .01$.

11) in which the differences between educators and students involved the extent of agreement with the statements. For example, both groups agreed that their curricula had the appropriate emphasis on report writing, PowerPoint, listening, and interpersonal skills with management. However, students, as compared with educators, had a stronger belief and support for these statements. In the other three statements (3, 8, and 9), both groups differed in their responses. Although students agreed with the statements, educators had neutral opinions.

With respect to the number of courses that cover communication skills, there were five communication skills (14, 18, 19, 20, and 22) in which the two groups significantly differed in their responses. Although educators indicated that one or two courses covered communication skills, students reported they were included in three or four courses.

Effect of External Variables

Here we discuss the effect of external variables including gender, discipline, position and classification, school size, required course in business communication, and course format on educator and student perceptions. An ANOVA was used as the basis for determination of statistically significant differences. A summary of findings is presented in Table 3.

Although discipline, student classification, school size, required course, and course format had no impact on student opinions about the appropriate emphasis on communication skills, gender impacted their perceptions. On the other hand, gender, position, required course, course format, and trend in importance of communication skills did not influence educator perceptions. However, school size and tenure status influenced their opinions.

Regarding participant responses to the number of courses required in IS curricula that covered communication skills, the variables discipline, classification, and required course did not impact student responses; however, gender, school size, and course format influenced their opinions. For the educator sample, only school size and trend in the importance of communication skills were significant.

Compared with the instructor group, gender had a stronger significant effect on students. There were nine statements (communication skills), compared with two statements for educators, in which there were significant differences between men and women. Both groups agreed that the IS curricula had the appropriate emphasis for writing (grammar), PowerPoint, oral presentation, and interpersonal skills with colleagues and management. However, male students were more in agreement with these statements than

TABLE 3
A Summary of ANOVA Results for Educators and Students

	1. Gender		2. Discipline		3. Position/ classification		4. School Size		5. Course required		6. Format		7. Importance		8. Tenured	
Statement	E	ST	E	ST	E	ST	E	ST	E	ST	E	ST	E	ST	E	ST
Survey item 1																
1. Writing (grammar) skills	NS	S†	—	NS	NS	NS	NS	NS	S†	NS	NS	NS	NS	—	S†	—
2. Report writing skills	NS	NS	—	NS	NS	NS	S*	NS	NS	NS	NS	NS	NS	—	S†	—
3. Proofreading skills	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	S*	—
4. Teamwork skills	NS	NS	—	NS	NS	NS	**S***	NS	NS	NS	NS	NS	NS	—	**S†**	—
5. PowerPoint skills	NS	S*	—	NS	S†	NS	NS	NS	NS	NS	NS	NS	NS	—	S*	—
6. Oral presentation skills	NS	S**	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	S**	—
7. Listening skills	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	NS	—
8. Meeting facilitation skills	S*	NS	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	NS	—
9. Interpersonal skills with external customers	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	NS	—
10. Interpersonal skills with colleagues	NS	S**	—	NS	NS	NS	NS	S†	NS	NS	NS	NS	NS	—	NS	—
11. Interpersonal skills with management	NS	S**	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	—	NS	—
Survey item 2																
12. Writing (grammar) skills	NS	NS	—	NS	NS	NS	NS	NS	S*	NS	S*	S*	S*	—	NS	—
13. Report writing skills	S†	S*	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	S†	—	NS	—
14. Proofreading skills	NS	NS	—	NS	NS	NS	NS	NS	NS	S*	NS	NS	S†	—	NS	—
15. Teamwork skills	NS	NS	—	NS	NS	NS	S**	NS	NS	NS	NS	NS	S†	—	NS	—
16. PowerPoint skills	NS	NS	—	NS	S†	NS	NS	S*	NS	NS	NS	NS	S†	—	NS	—
17. Oral presentation skills	NS	S†	—	NS	NS	NS	S**	S*	NS	NS	NS	NS	S*	—	S**	—
18. Listening skills	NS	S*	—	NS	NS	S*	NS	S†	NS	NS	NS	NS	S†	—	NS	—
19. Meeting facilitation skills	NS	S**	—	NS	NS	NS	NS	S*	NS	NS	NS	NS	NS	—	NS	—
20. Interpersonal skills with external customers	NS	NS	—	NS	NS	NS	NS	S*	NS	NS	NS	S**	S†	—	NS	—
21. Interpersonal skills with colleagues	NS	NS	—	NS	NS	NS	S†	S*	NS	NS	NS	S**	NS	—	NS	—
22. Interpersonal skills with management	NS	NS	—	NS	NS	NS	NS	S†	NS	NS	NS	S*	NS	—	NS	—

Note. Survey item 1 = The emphasis on the following communication skills in the IS curriculum at our college is appropriate: 1(strongly agree) to 5 (strongly disagree). Survey item 2 = In the IS curriculum approximately how many courses cover the following communication skills: 1(5 or more), 2 (3–4), 3 (1–2), 4 (0). E = educator; ST = student; NS = not significant; S = significant. For students (ST), df = 1, 81 for all F values except for "Format" (variable 6), where df = 2, 80; and Statement 22, where df = 2, 79. For Educators (E), df = 1, 57 for all F values except "School size" (variable 4) and "Format" (variable 6), where df = 2, 56.

$^{\dagger}p < .1$. $^{*}p < .05$. $^{**}p < .01$.

female students. With respect to the number of courses that covered communication skills, there were four communications skills (report writing, oral presentation, listening, and meeting facilitation skills) in which the two groups significantly differed. Although male students reported that three or four courses covered report writing and meeting facilitating skills, female students noted only one or two courses. Female students felt that there was more need to cover such skills. In the case of educators, both agreed that there was more need to emphasize meeting facilitating skills.

Students at schools that required a course in business communication reported three or four courses in the IS curricula covered proofreading skills, compared to one or two courses reported by students at schools that did not require a business communication course. Although educators at schools that required a business communication course agreed that their IS curricula had the appropriate emphasis on writing grammar skills, educators at schools that did not require such a course were neutral.

With respect to school size, students at schools under 5,000 students indicated that their IS curricula had one or two courses that covered interpersonal skills with external customers, compared to three or four courses reported by students at schools size of over 5,000 students. Educators at schools with more than 15,000 students reported that teamwork and oral presentation skills were covered in five or more courses, compared with three or four courses for schools with fewer than 15,000 students. As related to the appropriate emphasis on communication skills by IS curricula, educators at schools with more than 15,000 students felt their IS curricula had the appropriate emphasis on report writing skills, whereas educators at schools of size under 15,000 students felt neutral. Additionally, educators at schools with over 15,000 students had a stronger belief that their IS curricula had the appropriate emphasis on teamwork skills.

Students who indicated that the format of the business communication course was online, reported that one or two courses covered writing (grammar), interpersonal skills with external customers, interpersonal skills with colleagues, and interpersonal skills with management, compared with three or four courses for face-to-face and hybrid modes.

As related to the importance of communication skills over the past five years, all educators indicated that the importance either grew or remained the same. Additionally, educators reported that three or more courses cover writing (grammar) skills, report writing, teamwork, PowerPoint, oral presentation, and listening skills. However, they indicated that one or two courses covered proofreading and interpersonal skills with external customers. While tenured faculty agreed that the emphasis on writing (grammar), report writing, proofreading, and PowerPoint skills was appropriate, nontenured faculty members were neutral.

CONCLUSION

Implications

We examined perceptions of IS educators and students on a number of statements related to the emphasis and coverage of communication skills in IS curricula. In general, educators and students had similar perceptions for most of the statements on the questionnaire. On average, students, as compared with educators, held stronger agreement with the statements. They agreed that their IS curricula had the appropriate emphasis on all listed communication skills. Additionally, they indicated that their IS curricula had three or four courses that cover communication skills. On the other hand, educators felt that a few communication skills such as proofreading, listening, meeting facilitation skills, interpersonal skills with external customers, and interpersonal skills with management needed more emphasis by adding additional content related to such skills in IS curricula. These skills were reported by a study (Hansen & Hansen, 2010) as among the key needed skills by employers; they reported listening, verbal, written, and interpersonal abilities as necessary workplace skills. Thus, both educators and employers believe there is a need to emphasize these skills.

One important finding in the study was the fact that both educators and students from schools that do not require a business communication course for IS majors felt the need for more emphasis and coverage of communication skills in IS curricula at their schools. Thus, requiring a business communication course for IS majors might be part of the solution. Another important finding was schools of less than 15,000 students, compared with larger schools, seemed to have a fewer number of courses that covered communication skills. Therefore, to keep their students competitive and to have a better chance for employment, they might reexamine the contents of their courses in the IS curricula and make sure that communication skills such as report writing and teamwork skills are adequately included. When teaching business communication online, educators need to ensure that appropriate emphasis and content related to communication skills are presented.

It seemed that the differences between educators and students on agreement or disagreement with the statements were not due to other variables that could have influenced their responses; instead, significant differences were found between the two groups simply because of their perspectives as educators and students. For example, we expected that discipline and position and classification would impact both educator and student perceptions, but they did not. On the other hand, gender and school size were the most significant variables that influenced student perceptions. For educators, perception of the trend for the importance of communication skills and tenure status were the most significant factors.

Educators and students alike strongly emphasized the importance of a business communication course in the IS curriculum in their responses to the open-ended question. Additionally, they indicated that more business communication skills better prepare students for the workforce and noted that such skills are critical for professional career survival in the business world. Student comments were very positive regarding the business communication course with respect to the content and the way it had been taught. However, they asked for more group presentations that reflect real business cases and also requested more courses related to business communication. Educators indicated that employers always emphasize the importance of soft skills. They also mentioned the need to redesign some of the courses for greater emphasis on business communication skills. Additionally, they suggested business communication courses should focus on the quality of the content and be more specific about particular skills that provide students with more employment opportunities. A concern reported by educators was that many male students do not take such skills seriously. One interesting suggestion was to provide students with opportunities to interact with business people (e.g., holding breakfast forums, having a professional speaker series.) Other ideas were including language courses and teaching translation skills.

Additionally, we sought a different focus and dealt with business communication skills practiced in the workplace and essential to successful attainment of organizational objectives, such as presentation, writing, listening, and interpersonal skills. This focus differentiates the study from the customary emphasis upon understanding or application of technical communication skills. In addition, the study involved perspectives of both educators and students, which provided relevant insights that can serve as a basis for education of students and improvement of IS curriculum. The findings highlight the gap between perceptions of students and educators. This emphasizes the need to reevaluate the IS curriculum and communicate it to students as well as faculty at schools of business. The reevaluation should also include feedback from both employers and advisory councils.

Limitations and Future Research

The limitations of the study were the relatively small sample sizes and the use of self-reported information. However, the findings of this study provide some opportunities for further studies. Developing an instrument that incorporates more factors, such as age and generation differences, to measure perceptions as well as the actual level of communication skills would be an interesting project. A possible future research project could be a longitudinal study to focus on employer perceptions of student communication skills. Another plausible future research project could be a comparison of the perception of IS professionals, IS educators, and recent IS employees.

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