

# THE IMPACT OF BUSINESS COMMUNICATION EDUCATION ON STUDENTS' SHORT- AND LONG-TERM PERFORMANCES

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*The purpose of this longitudinal study was to identify the short- and long-term impact of business communication education on students' skill developments and performance outcomes. Nearly 400 students at an AACSC International-accredited business college participated in the study during their sophomore and senior years. The findings indicate that the business communication course helped students develop good skills in writing reports, solving problems, working in teams, communicating orally, and using Internet technologies for both the short term (sophomore year) and the long term (senior year). More than 95% of the students reported achieving As and Bs on written assignments, company-analysis reports, problem-solving assignments, and oral presentations in their sophomore, junior, and senior years. However, the long-term effect was statistically less significant than was the short-term effect, although both were within the same positive range.*

**Keywords:** *longitudinal study; assessment of course effectiveness; report writing; problem solving; teamwork; oral presentation; short- and long-term effects*

EMPLOYERS REQUIRE THEIR EMPLOYEES to have good communication skills and expect that college students will possess such skills when they graduate (Cappel, 2002; Epstein, 1999; Stowers & White, 1999; U.S. Department of Labor, 2002). To meet such a demand, business communication education is offered as a required course for business students at most universities and colleges in the United States (Knight, 1999; Ober & Wunsch, 1995).

The content of the business communication courses includes a wide range of concepts and skills. In a national survey of 229 members of the Association for Business Communication (ABC) in the United States, Wardrope and Bayless (1999) found that instructors taught communication theory, written communication, oral communication, employment communication, technology, and ethics and cultural diversity in their business communication courses. This finding is consistent with

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that of an earlier national survey of 301 ABC members on the same subject (Ober & Wunsch, 1995).

Several course-assessment studies report that students improve their skills in business communication by taking the course. For example, Hiemstra (2001) surveyed 286 business communication instructors and 406 students in the United States. The survey found that most instructors and students either agreed or strongly agreed that students improved in the areas of report organization, clarity, completeness, correctness, conciseness, content, grammar and mechanics, tone, audience analysis, and confidence in writing after completing the course. Similarly, Murranka and Lynch (1999) reported that each semester, around 600 business students enrolled in their competency-based management communication course, which teaches business writing fundamentals, formal report writing, informative oral presentations, and persuasive oral presentations, created better written documents and oral presentations because of the course. Students, faculty, and administration all viewed the course positively.

These assessments reported only students' performance outcomes at the end of their business communication course. No studies have been found that assess students' long-term performances in business communication. Therefore, a need exists for a longitudinal study to examine the impact of business communication education on college students' short- and long-term performances. In this study, we assess the short-term impact by asking sophomore students to report their perceived learning outcomes voluntarily after completing a required business communication course. When the students reach the end of their senior year, we assess the long-term impact by asking them to report voluntarily their perceived communication-related performances in upper-division business courses and in job-related activities. Perceptions were used in the study because they are people's observations and recognitions of reality; people do not deal with reality *per se* but rather with perceptions of reality (Watzlawick, 1978; Werther, Ruth, & McClure, 1986).

## **PROBLEM STATEMENT AND RESEARCH QUESTIONS**

The purpose of this study was to examine the impact of business communication education on students' skill developments and performance outcomes in short and long terms. To address this issue, we asked the following research questions:

1. How does business communication education affect students' report-writing skills in the short and long term?
2. Do differences exist between students' short- and long-term report-writing skills?
3. How does business communication education affect students' problem-solving skills in the short and long term?
4. Do differences exist between students' short- and long-term problem-solving skills?
5. How does business communication education affect students' teamwork and oral communication skills in the short and long term?
6. Do differences exist between students' short- and long-term teamwork and oral communication skills?
7. How does business communication education affect students' Internet skills in the short and long term?
8. Do differences exist between students' short- and long-term Internet skills?
9. What are students' short- and long-term performance outcomes in business communication education?
10. Do differences exist between students' short- and long-term performance outcomes?

### **PURPOSE OF THE STUDY**

The purpose of the study is threefold. First, the findings of the study are valuable for the participating business communication instructors to identify strengths, weaknesses, and opportunities for continuous improvement of business communication education. Second, the findings would enable business communication instructors at other institutions to decide whether and how they would incorporate the short- and long-term effect assessments into their curricula. Third, the findings would be useful for instructors teaching upper-division business courses to identify opportunities for requiring students to reinforce and further improve the business communication skills they developed in the earlier business communication course because such skills are important in any business profession.

### **PROCEDURE**

To address the research problem of this study, we conducted the study between spring 2000 and spring 2002 at an AACSC International-

accredited business college of a Midwestern state university with approximately 21,000 students. First, we developed an assessment questionnaire based on the learning objectives of a business communication course, which is required for and limited to all the prebusiness majors before entering their major programs in the college of business. The questionnaire contained five sections: report-writing skills, problem-solving skills, teamwork and oral communication skills, Internet skills, and performance outcomes.

The report-writing skills included the skills of (a) determining appropriate report type, format, and length; (b) balancing report parts properly; (c) organizing reports to flow logically; (d) editing reports properly; (e) using correct grammar; (f) using in-text citations, references, and appendices properly; (g) writing good company-analysis reports; and (h) writing good reports in other business courses.

The problem-solving skills involved in the questionnaire were the skills of (a) defining problems, purposes, and audiences clearly; (b) collecting needed data; (c) analyzing collected data properly; (d) providing proper recommendations and action plans; and (e) solving problems well in other business courses.

The teamwork and oral communication skills included (a) participating actively in teamwork; (b) contributing fairly to team projects; (c) feeling comfortable working in teams; (d) being able to resolve conflicts; (e) having good attendance to teamwork; (f) communicating well in the event of absences; (g) dressing professionally for formal oral presentations; (h) participating actively in class discussions; (i) having positive attitudes toward teamwork, classmates, professors, and supervisors; (j) making good oral presentations in other business courses; and (k) communicating well during face-to-face interviews.

The Internet skills included (a) searching for business and company information on the Internet, (b) posting a resume on the Web, and (c) sending a resume by e-mail. Students' performance outcomes included the grades they usually achieved on written assignments, on company-analysis reports, on problem-solving assignments, and on oral presentation assignments in their sophomore, junior, and senior years.

Individual questionnaire items were arranged to form a Likert-type scale with a 5-point spread to measure student competence levels in using skills. Participant scoring options for the items in the first four sections were 1 = *strongly agree*, 2 = *agree*, 3 = *uncertain*, 4 = *disagree*, and 5 = *strongly disagree*, whereas those for the fifth section regarding students' performance outcomes were the grades of A, B, C, D, and F. A 10-member

panel of experts reviewed the questionnaire and unanimously agreed that the questionnaire items were valid measures for the stated course objectives. The panel of experts included business communication faculty, textbook writers, and researchers.

The population of this longitudinal study was the students enrolled in the business communication course as prebusiness majors who then completed their business majors at the college of business. We randomly selected spring 2000 as the beginning semester of the study, and 392 prebusiness students who were enrolled in the business communication course volunteered to serve as the first sample group and complete the questionnaire at the end of the course. Two years later, at the end of spring 2002, 371 senior students who were enrolled in the business-capstone course, Business Policy and Strategic Management, volunteered to serve as the second sample group and completed the follow-up questionnaire. As a transfer policy of the college of business, transfer students must take both the business communication course and the business capstone course at the college. The students understood that their participation in the study would be anonymous and would not have an impact on their course grade, as required by the university Institutional Review Board protocol.

We edited and coded each returned questionnaire and prepared frequency counts, percentage distributions, and weighted averages. In analyzing the data, the midpoints of each scale range (the real outer limits) were used in determining the degree of agreement or disagreement; that is, mean scores of 1 to 1.5 = *strongly agree*, 1.51 to 2.5 = *agree*, 2.51 to 3.5 = *uncertain*, 3.51 to 4.5 = *disagree*, and 4.51 to 5 = *strongly disagree*. We also employed the independent *t* tests to identify any significant differences at the .05 alpha level between the sophomore and senior students in their reports of how the business communication course impacted their skill developments and performances in the short and long term.

## FINDINGS

The findings of the study are presented in the sequence of the short- and long-term impacts of the business communication course on students' (a) report-writing skills, (b) problem-solving skills, (c) teamwork and oral communication skills, (d) Internet skills, and (e) performance outcomes.

### **Impact on Students' Report-Writing Skills**

Research Question 1 asked, How does business communication education affect students' report-writing skills in the short and long term? Table 1 summarizes the mean scores and the standard deviations of the short-term effect on the sophomore group and the long-term effect on the senior group regarding various report-writing skills and the statistical differences between the two groups from the independent *t* test. As Table 1 illustrates, immediately after completing the required business communication course, sophomore students agreed that the course had helped them develop a good foundation of report-writing skills. These skills were (a) determining appropriate report types, formats, and lengths; (b) properly organizing and editing reports; and (c) properly using citations, references, and appendices, with mean scores between 1.53 and 2.17. In addition, they indicated that the course had helped them write good reports in other business courses, with a mean score of 1.74.

Two years later, in the last semester of their senior year, students completed a follow-up survey on the long-term impact of the business communication education. The senior students reported that the business communication course they had taken in their sophomore year had helped them develop a good foundation of many report-writing skills (with means between 2.11 and 2.35). They also agreed that the course had helped them write good reports in other business courses (mean = 2.25). The only two skills for which senior students indicated some uncertainty were using in-text citations properly (mean = 2.51) and using appendices properly (mean = 2.62), as shown in Table 1.

Research Question 2 asked, Do differences exist between students' short- and long-term report-writing skills? As Table 1 also shows, the senior group's mean scores of report-writing skills were all somewhat behind those of the sophomore group, although most mean scores of the two groups were within the same positive range of 1.51 to 2.5. The independent *t* test results in Table 1 indicate that the differences of the mean scores between the sophomore and senior groups were all statistically significant.

### **Impact on Students' Problem-Solving Skills**

Research Question 3 asked, How does business communication education affect students' problem-solving skills in the short and long term? As the mean scores in Table 2 show, the sophomore students agreed

**Table 1. Impact of Business Communication Education on Students' Report-Writing Skills in the Short and Long Term**

<i>Report-Writing Skill</i>	<i>Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Significance</i>																																																																																																																																
Determine an appropriate report type	Sophomore	392	1.63	.588	-12.200	761	.000																																																																																																																																
	Senior	371	2.22	.733				Determine an appropriate report format	Sophomore	392	1.62	.577	-11.074	760	.000	Senior	370	2.15	.748	Determine an appropriate report length	Sophomore	391	1.75	.634	-10.355	759	.000	Senior	370	2.29	.785	Balance properly the various report parts	Sophomore	392	1.69	.601	-10.206	761	.000	Senior	371	2.19	.741	Organize reports to flow logically	Sophomore	392	1.72	.684	-7.700	761	.000	Senior	371	2.11	.699	Edit reports properly	Sophomore	391	1.85	.685	-7.056	758	.000	Senior	369	2.22	.772	Use correct grammar	Sophomore	392	1.89	.763	-6.221	760	.000	Senior	370	2.25	.837	Use in-text citations properly	Sophomore	392	2.14	.869	-5.658	757	.000	Senior	367	2.51	.929	Use references properly	Sophomore	392	2.07	.840	-4.478	760	.000	Senior	370	2.35	.852	Use appendixes properly	Sophomore	392	2.17	.957	-6.325	760	.000	Senior	370	2.62	.987	Write good company-analysis reports	Sophomore	389	1.53	.585	-13.050	756	.000	Senior	369	2.2	.817	Write good reports in other business courses	Sophomore	390	1.74	.629	-9.622	756	.000
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NOTE: Mean scores of 1 to 1.5 = *strongly agree*, scores of 1.51 to 2.5 = *agree*, and scores of 2.51 to 3.5 = *uncertain*.

that the business communication course had helped them develop good problem-solving skills such as (a) clearly defining problems, purposes, and audience; (b) collecting and analyzing needed data; and (c) providing proper recommendations and action plans (with means between 1.65 and 1.76). The sophomore students also agreed that the course had helped them solve problems well in other business courses (mean = 1.83). Similarly, students in their senior year again reported that the business communication course they had taken in their sophomore year still had a positive effect on their problem-solving skills (with means between 2.18 and 2.37), and they also solved problems well in other business courses (mean = 2.32).

Research Question 4 asked, Do differences exist between students' short- and long-term problem-solving skills? As Table 2 illustrates, even though all of the mean scores of problem-solving skills were within the same range of 1.51 to 2.5, the senior group's scores were a little lower than were the sophomore group's. The independent *t* test indicated that mean scores of the sophomore group were significantly different than those of the senior group.

#### **Impact on Students' Teamwork and Oral Communication Skills**

Research Question 5 asked, How does business communication education affect students' teamwork and oral communication skills in the short and long term? Immediately after completing the business communication course, sophomore students agreed that the course had helped them develop a good foundation of teamwork and oral communication skills, with means between 1.46 and 2.14. As shown in Table 3, these skills were (a) participating actively in teamwork; (b) contributing fairly to team projects; (c) feeling comfortable working in a team; (d) being able to resolve conflicts; (e) having good teamwork attendance; (f) communicating well through absences; (g) dressing professionally for formal oral presentations; (h) participating actively in class discussions; (i) having positive attitudes toward teamwork, classmates, professors, and supervisors; (j) making good oral communication in other business courses; and (k) communicating well during face-to-face interviews.

By the end of their senior year, students again agreed that the business communication course they had taken in their sophomore year had helped them develop a good foundation of many teamwork and

*(text continues on p.35)*

**Table 2. Impact of Business Communication Education on Students' Problem-Solving Skills in the Short and Long Term**

<i>Problem-Solving Skill</i>	<i>Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Significance</i>																																																																																
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	Senior	370	2.25	.788				Collect needed data properly	Sophomore	390	1.66	.619	-10.185	755	.000	Senior	367	2.19	.797	Analyze collected data properly	Sophomore	391	1.76	.711	-10.570	760	.000	Senior	371	2.37	.877	Provide proper recommendations	Sophomore	391	1.71	.606	-10.594	759	.000	Senior	370	2.22	.741	Provide proper action plans	Sophomore	391	1.73	.645	-10.274	759	.000	Senior	370	2.28	.818	Solve problems well in other business courses	Sophomore	390	1.83	.673	-8.823	759	.000	Senior	371	2.32	.853																				
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	Senior	367	2.19	.797				Analyze collected data properly	Sophomore	391	1.76	.711	-10.570	760	.000	Senior	371	2.37	.877	Provide proper recommendations	Sophomore	391	1.71	.606	-10.594	759	.000	Senior	370	2.22	.741	Provide proper action plans	Sophomore	391	1.73	.645	-10.274	759	.000	Senior	370	2.28	.818	Solve problems well in other business courses	Sophomore	390	1.83	.673	-8.823	759	.000	Senior	371	2.32	.853																																
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NOTE: Mean scores of 1 to 1.5 = *strongly agree*, scores of 1.51 to 2.5 = *agree*, and scores of 2.51 to 3.5 = *uncertain*.

**Table 3. Impact of Business Communication Education on Students' Teamwork and Oral Skills in the Short and Long Term**

<i>Teamwork and Oral Skill</i>	<i>Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Significance</i>
Participate actively in teamwork	Sophomore	392	1.52	.635	-7.866	761	.000
	Senior	371	1.89	.660			
Contribute fairly to team projects	Sophomore	392	1.48	.631	-8.159	761	.000
	Senior	371	1.86	.674			
Feel comfortable working in team	Sophomore	392	1.54	.681	-7.658	70	.000
	Senior	370	1.95	.796			
Be able to resolve conflicts	Sophomore	392	1.72	.763	-7.967	760	.000
	Senior	370	2.21	.926			
Have good teamwork attendance	Sophomore	392	1.65	.741	-9.675	759	.000
	Senior	369	2.24	.916			
Communicate well for absence	Sophomore	392	1.73	.775	-8.071	759	.000
	Senior	369	2.23	.916			
Dress professionally for formal oral presentations	Sophomore	392	1.46	.602	-9.247	760	.000
	Senior	370	1.93	.788			

*(continued)*

**Table 3 (continued)**

<i>Teamwork and Oral Skill</i>	<i>Group</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Significance</i>																																																								
Participate actively in class discussions	Sophomore	391	1.85	.768	-7.191	759	.000																																																								
	Senior	370	2.29	.907				Have positive attitude toward teamwork	Sophomore	392	1.69	.758	-8.502	759	.000	Senior	369	2.19	.866	Have positive attitude toward classmates	Sophomore	392	1.63	.643	-10.060	760	.000	Senior	370	2.15	.803	Have positive attitude toward professors and supervisors	Sophomore	381	1.58	.655	-10.507	726	.000	Senior	347	2.16	.833	Make good oral presentations in other business courses	Sophomore	389	1.71	.659	-9.077	756	.000	Senior	369	2.21	.862	Communicate well during face-to-face interviews	Sophomore	389	2.14	.83	-8.121	756	.000
Have positive attitude toward teamwork	Sophomore	392	1.69	.758	-8.502	759	.000																																																								
	Senior	369	2.19	.866				Have positive attitude toward classmates	Sophomore	392	1.63	.643	-10.060	760	.000	Senior	370	2.15	.803	Have positive attitude toward professors and supervisors	Sophomore	381	1.58	.655	-10.507	726	.000	Senior	347	2.16	.833	Make good oral presentations in other business courses	Sophomore	389	1.71	.659	-9.077	756	.000	Senior	369	2.21	.862	Communicate well during face-to-face interviews	Sophomore	389	2.14	.83	-8.121	756	.000	Senior	369	2.68	.984								
Have positive attitude toward classmates	Sophomore	392	1.63	.643	-10.060	760	.000																																																								
	Senior	370	2.15	.803				Have positive attitude toward professors and supervisors	Sophomore	381	1.58	.655	-10.507	726	.000	Senior	347	2.16	.833	Make good oral presentations in other business courses	Sophomore	389	1.71	.659	-9.077	756	.000	Senior	369	2.21	.862	Communicate well during face-to-face interviews	Sophomore	389	2.14	.83	-8.121	756	.000	Senior	369	2.68	.984																				
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NOTE: Mean scores of 1 to 1.5 = *strongly agree*, scores of 1.51 to 2.5 = *agree*, and scores of 2.51 to 3.5 = *uncertain*.

oral communication skills (with means between 1.86 and 2.29), except for one uncertainty of communicating well during face-to-face interviews (mean = 2.68).

Research Question 6 asked, Do differences exist between students' short- and long-term teamwork and oral communication skills? As Table 3 shows, the senior group's mean scores of teamwork and oral communication skills were a little lower than were the sophomore group's. Most scores of the two groups were within the same positive range (1.51 to 2.5), except for the senior group's uncertainty of communicating well during face-to-face interviews (mean = 2.68). According to the independent *t* test, the differences between the sophomore and the senior groups were statistically significant.

#### **Impact on Students' Internet Skills**

Research Question 7 asked, How does business communication education affect students' Internet skills in the short and long term? Both the sophomore and senior groups agreed that the business communication course had helped them develop good Internet skills in searching for business and company information, posting a resume on the Web, and sending a resume by e-mail, with all the means in the same range of 1.51 to 2.5 (see Table 4).

Research Question 8 asked, Do differences exist between students' short- and long-term Internet skills? As the independent *t* test results in Table 4 indicate, the sophomore group's means differed significantly from those of the senior group, even though the means of the two groups were within the same range.

#### **Impact on Students' Performance Outcomes**

Research Question 9 asked, What are students' short- and long-term performance outcomes? As Table 5 summarizes, regarding business writing assignments in their sophomore year, 69% of the students reported having usually achieved As, and 30% reported achieving Bs. In their senior year by contrast, 50% of them reported having received As and 48% reported Bs. Regarding the usual grades on company-analysis reports, 66% of the sophomores reported having received As and 33% reported Bs, whereas in the senior year, 48% reported having achieved As and 49% reported Bs. When asked about their usual grades on oral presentation assignments, 67% of the sophomores reported having As and 32% reported Bs; in their senior year, however, 54% reported having As and 45% reported Bs.

**Table 4. Influence of Business Communication Course on Students' Internet Skills In the Short and Long Term**

<i>Internet Skill</i>	<i>Class</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Significance</i>
Search for business and company information	Sophomore	391	1.66	.755	-12.687	759	.000
	Senior	370	2.18	.902			
Post resume on the Web	Sophomore	387	1.81	.762	-10.595	754	.000
	Senior	369	2.29	.916			
Send resume by e-mail	Sophomore	388	1.77	.796	-10.014	756	.000
	Senior	370	2.14	.822			

NOTE: Mean scores of 1 to 1.5 = *strongly agree*, scores of 1.51 to 2.5 = *agree*, and scores of 2.51 to 3.5 = *uncertain*.

**Table 5. Short- and Long-Term Outcomes of Students' Course Assignments**

<i>Type of Assignment</i>	<i>Class</i>	<i>n</i>	<i>Grades</i>			<i>Total (%)</i>	<i>Pearson Chi-Square</i>		
			<i>A (%)</i>	<i>B (%)</i>	<i>C (%)</i>		$\chi^2$	<i>df</i>	<i>Pro</i>
Usual grades on business writing assignments	Sophomore	391	69	30	1	100	30.333	2	.000
	Senior	362	50	48	2	100			
Usual grades on company-analysis reports	Sophomore	389	66	33	1	100	31.594	2	.000
	Senior	365	48	49	3	100			
Usual grades on oral presentation assignments	Sophomore	381	67	32	1	100	14.364	2	.002
	Senior	366	54	45	1	100			

NOTE: Pro = probability.

Research Question 10 asked, Do differences exist between students' short- and long-term performance outcomes? As the results of the Pearson chi-square test in Table 5 indicate, the grades that students achieved on their sophomore business writing and oral assignments were significantly higher than those they achieved on their business writing and oral assignments in their junior and senior years.

## **SUMMARY AND DISCUSSION**

In general, students agreed that the required sophomore business communication course had helped them develop a good foundation of skills in writing reports, solving problems, performing teamwork and oral communication, and using the Internet technologies for both the short term (sophomore year) and the long term (senior year). In addition, more than 95% of the students reported achieving As and Bs on writing assignments, company-analysis reports, and oral presentation assignments in their sophomore, junior, and senior classes. However, although both the short- and long-term effects of the business communication course were within the same positive range, the statistical analysis showed that the long-term effect was significantly smaller than was the short-term effect in all the five areas.

These findings are important not only to the business communication discipline but also to other business disciplines. The finding of the short-term positive effect of the business communication course is consistent with the findings of other large-scale assessment studies of business communication education (e.g., Hiemstra, 2001; Murranka & Lynch, 1999). All of these studies have identified similar positive outcomes of business communication education right after students completed the course. However, the declined long-term positive effect identified after a 2-year period in this study raises questions for all business educators. Was this declined long-term positive effect a normal variation on students' lifelong learning curve? Was it caused by the lack of needed reinforcement? Was it caused by upper-division business educators' more rigid grading criteria and senior students' better understanding of the complexity of oral and written business communication? Or was something else going on? How would educators teaching upper-division business courses help students improve and sustain their skills in writing reports, solving problems, conducting teamwork and oral communication, and using the Internet technologies in the long run?

## CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this study and on the related literature, we conclude that, first, business communication education positively affects students' skill developments and performance outcomes in writing reports, solving problems, performing teamwork and oral communications, and using the Internet technologies in both the short and long term. Second, the short-term positive impact identified right after students took the business communication course is significantly higher statistically than the long-term positive impact after a 2-year period, even though most of the results are within the same positive range.

To understand the possible causes of the declined long-term positive impact of business communication education and to explore feasible approaches for helping students improve and sustain their business communication skills, we have two recommendations for further research.

Our first recommendation is for further study to be undertaken in the same institution to investigate whether and how the professors teaching the upper-division business courses incorporate reinforcement mechanisms into their course assignments to help students improve and sustain their business communication skills.

Our second recommendation is that a replication of this study be undertaken in other AACSC International-accredited business colleges where students are required to take a business communication course in their sophomore year to establish the generalizability of the findings and of the conclusions of this study.

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