Perceptions of Preceptors and Students on the Importance of Writing

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Health administration programs vary from other administrative programs based on emphasis in writing. Prior studies about writing skills in professional degree programs show student writing skills are not at a professional level. There is no literature at present that identifies important and essential writing skills related specifically to undergraduate or graduate health administration programs. This pilot study surveys graduate and undergraduate programs' residency preceptors to identify the important skills and forms of written communication used in the workplace and surveys students to discover their perceptions of what skills and written work they will perform in their initial job. Results show that preceptor and students differ in their perceptions of forms of written communication deemed essential, but they do not differ in their perceptions of what is an essential writing skill. Further research is needed to obtain more in-depth insight into adequate preparation for program graduates' initial job.

Keywords: *written communication, perceptions, writing skills, workplace, students*

INTRODUCTION

Health administration faculty often differentiate a health administration degree from a business degree by the inclusion of core content that trains students to have strong written and verbal communication skills. This focus seems to be substantiated by the various health administration accreditation bodies that emphasize the importance of communication. Since the 1990s, there has been an emphasis in health administration on "competency based" curricula that incorporates the skills, including communication, needed in the workforce throughout the academic curriculum (Gelmon & Regan, n.d.).

In an attempt to clarify and, to some extent, standardize learning across the health administration curricula, health administration accreditation bodies have embellished the concept of "competency based" education (Messum, Wilkes, & Jackson, 2011). According to the Institute of Medicine (2003), this would include core sets of competencies that would be shared across the health professions. To be a competency, concepts should be at higher skill sets and have higher degrees of sophistication. The Commission on Accreditation for Health Management Education (CAHME) addressed the need for an increased emphasis on competency in 2008, the first year that health administration departments demonstrated that their curricula were competency-based.

Across numerous disciplines, faculties have developed competency-based models that identify the skills/knowledge/application that were important for all graduating students to possess as they entered the workforce. These behaviors were then analyzed to determine the degree of sophistication needed, and faculty members would subsequently seek validation from workforce leaders with whom the faculty had working arrangements. Eventually skills needed in the workforce were categorized into large components. For example, Bradley et al. (2008) identified three domains—technical, analytical/conceptual, and interpersonal—needed for the healthcare professional, while Christensen, Barnes, and Rees (2004) identified ten communication skills needed by accounting graduates. Other researchers (Branz, 2008; Calhoun et al., 2008; Levy, 1995) used similar nomenclature to identify overarching areas that

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were crucial for successful transition into the workforce. Ultimately, CAHME developed a competency model based on the 1950s Bloom educational hierarchy (Martin & Briggs, 1986).

The original Bloom's hierarchy identified three domain areas that included knowledge (cognition), skills (psychomotor), and attitude (affective). Within these three domains was a hierarchy of concepts, with subsequent levels being dependent on previously learned levels. To a certain extent, the three domains were interrelated. Thus, people with knowledge of a subject and a positive attitude about a subject were likely to practice a skill set because they knew the importance of the skill; subsequently, practicing the skill led to a competency level of the activity. Thus, the Bloom hierarchy indicated the need for people who were at a base level of knowledge and skill to practice the skills in order to increase the level of their competency.

Bradley et al. (2008) found that as health administration programs began to consider the importance of competency-based education, faculty recognized that within the discipline the knowledge, skills, and attitudes were found across many, and throughout most, of the courses being taught. Thus it was imperative for the entire faculty to determine what should be the appropriate level of learning needed for entry into the workforce, to determine in which courses the domains and skill sets were being addressed, and to determine to what extent the domains were being addressed. Working together and truly analyzing courses throughout the curriculum created a matrix whereby faculty identified courses that placed a strong emphasis on a domain, courses whereby domains were introduced, and domains that were lacking in the curriculum.

Beginning with the Pew Health Professions Commission, health administration departments have analyzed their curricula to ascertain if they are teaching the important skills needed for the health care workforce. A number of terms—outcome-based education, criterion-reference education, criterion-based outcomes, standards-based instruction, evidence-based education (Calhoun et al., 2008)—have been used to describe an educational process that teaches principles and approaches that are meaningful for future employment. Indeed, marketplace and societal changes have necessitated on-going reevaluation of critical skills required in a 21st century healthcare business environment. Given the proliferation of e-mail, texting, and social marketing, a disconnect regarding the importance of written communication skills may exist between students, faculty, and stakeholders.

THE IMPORTANCE OF WRITING SKILLS

Due to a discrepancy between high school graduates' writing skills and the expectations of college instructors, the RAND Corporation's Council for Aid to Education (CAE), in early 2000, encouraged a "value added" (Benjamin & Chun, 2003) concept be considered in academia. This approach has become the Collegiate Learning Assessment (CLA) project that places emphasis on general education skills rather than content. In the CLA project, three important life-long skills are highlighted: critical thinking, analytic reasoning, and written communication. Although the CLA encourages these three skills be emphasized in the general education courses at universities, health administration departments can certainly relate to the importance of these skills in the discipline. However, a key factor that should be considered is the relevance of these "value added" concepts to the future employment of students.

To determine the specific writing skills needed within disciplines, many academic departments have implemented surveys of businesses with a history of hiring students educated in the respective disciplines. For example, Enos (2010) found proofreading and editing to be of significant importance when business leaders were surveyed. In that survey, "six of the 10 most distracting items fell into the category of basic sentence-structure errors" (Enos, 2010, p. 264). The report from the National Commission on Writing (Quible & Griffin, 2007) found that American employers spent over $3 billion yearly to address their employees' writing deficits. This paralleled the finding from the American College Test (ACT) study that found "nearly 20% of students entering college [must] take a remedial writing course" (Quible & Griffin, 2007, p. 34).

Even academic areas that seem to focus on analytical/mathematic skills valued writing skills. For example, Christensen, Barnes, and Rees (2004) found that seven of the top 10 skills gleaned as important for the newly hired accounting graduate dealt with writing. The Christensen et al. research (2004) further found that short essays that paralleled business memoranda better reflected writing skills needed by new hires as opposed to multi-page reports. Kelley and Gaedeke's (1990) survey of entry-level marketing positions substantiated the importance of written com-

munication. In addition, Kelley and Gaedeke (1990) surveyed their marketing students and found 44% lacked communication skills. A more recent survey (Gray, Emerson, & MacKay, 2005) found that students and employees tended to have different values of the importance of writing skills. In fact, the survey by Massey University (Gray, Emerson, & MacKay, 2005) found that employers valued clarity of providing information even more than accuracy of the material.

During the same time-frame, The National Commission on Writing (2005) released two landmark report to Congress: *The Neglected 'R': The Need for a Writing Revolution* and *Writing: A Ticket to Work...Or a Ticket Out, a Survey of Business Leaders. B*oth of these reports substantiated the importance of writing within the workforce and also cited that over a quarter of a billion dollars (National Commission on Writing, 2003) was spent annually to enhance new employee deficiencies in writing. A survey commissioned by the National Governors Association (NGA) had the same conclusion (National Commission on Writing, 2003). With results from 49 of the 50 United States, the NGA found nearly 67% of professional employees had some responsibility for writing. The survey also determined that "75% of the respondents report that they take writing into consideration in hiring and promoting professional employees" (National Commission on Writing, 2003, p. 4). Respondents also indicated that poor writing "doomed a candidate's chance of employment" (National Commission on Writing, 2003, p. 4). To substantiate this, a 2004 survey of private businesses sponsored by the Business Roundtable found that businesses "frequently" or "almost always" considered writing in professional promotions (National Commission on Writing, 2003, p. 4). Within the field of health administration, the American College of Healthcare Executives (ACHE) suggested five competencies, with communication and relationship management being a key domain (Branz, 2008). The ability to prepare business communication as well as the ability to produce credible reports was included within this competency.

Nearly all written communication studies determined that memorandums, business correspondence, and e-mail were crucial for today's workforce. With this concern expressed by business leaders throughout the healthcare field, the authors and their colleagues questioned if their emphasis on student writing was appropriate. Specific questions that faculty wanted to answer included the following:

1. According to leaders within the healthcare arena, what communication skills are needed to be successful in the health administration profession?
2. Upon graduating with a degree in healthcare administration, do students possess the communication skills most needed/desired by the workforce?
3. Are student perceptions of communication skills needed in the workforce the same as the healthcare supervisors' perceptions?

To answer these questions, the Massey University Communication Skills Survey of Written Skills (CSSWS) (Gray, Emerson, MacKay, 2005) and a question from the National Governors Association (National Commission on Writing, 2005) have been revised. The aggregated survey was given to healthcare leaders in central Texas for validation. Afterwards, preceptors (healthcare leaders who historically have provided oversight for undergraduate and graduate students' required internship/residency) were asked to complete the Likert-scale survey, with the leaders' input being based on their current experiences in the healthcare field.

To understand the writing skills that preceptors of the authors' master and bachelor degree programs in health administration felt were important for health administration students and to recognize the perceptions of writing skills that master and bachelor students believe they need in the workplace, the CSSWS was revised to emphasize the health care industry (Christensen et al., 2002; Gray, Emerson, & MacKay, 2005; Kelley & Gaedeke, 1990; National Commission on Writing, 2005). IRB exempt status was approved through the authors' university. The revised survey included a 15-item, seven-category Likert Scale on perceptions of skills needed in the workplace. It also included a nine-item, four category Likert Scale of specific types of writing examples currently used in the field. The one-page, 24-item survey was distributed to both healthcare preceptors and health administration students.

METHOD

Survey Population, Materials and Methods

This pilot study is concerned with two populations: preceptors of the Texas State University bachelor's and master's

degree health administration residencies and students preparing to enter either of the Texas State University health administration programs or into the health administration residencies. Forty-six preceptors and 203 students were surveyed.

Instrument

Students and preceptors received the same survey except for instructions and demographic questions (questions were customized for each population). The survey was based on the Massey University Communication Skills Survey of Written Skills (CSSWS). One question from the National Governors Association was added to the survey. Questions were reordered. Word changes were made only to reflect more appropriate health administration terminology. Both surveys have been tested for validity and reliability with some questions collapsed or omitted. The revised survey was comprised of a 24-item Likert scale instrument.

Procedure

The survey was administered differently for each population of concern. Using the departmental list of residencies, the survey was mailed to preceptors with a cover letter and business reply envelope. The survey was distributed to students in a randomly selected group of classes to obtain their perceptions at different points in their respective programs. Because of the small sample size of the pilot students, comparisons between student classes were not performed. Preceptors were surveyed in summer and fall terms in 2012, while students were surveyed in the fall 2012 term.

Data were entered into an Excel spreadsheet. This was cleaned and validated for correct entry and was analyzed using SAS 9.3. Subsequently, data were collapsed into dichotomous variables categorized as essential and unessential. Data about forms of communication used in entry to professional career were also recoded into dichotomous variables with responses of "frequently," "almost always," and "always" being collapsed into one category, while "almost never," "never," "occasionally," and "frequently" were collapsed into a different category. Frequency distributions were obtained and chi square analysis was used to determine statistically significant differences between student and preceptor populations.

RESULTS

A total of 46 surveys were mailed to 14 undergraduate and 32 graduate preceptors, with a total of 32 (69.6%) being returned. Of the 32 surveys sent to graduate program preceptors, 25 (78%) returned completed surveys, and seven (50%) of fourteen undergraduate program preceptors returned completed surveys.

A total of 53 graduate and 150 undergraduate students completed surveys in specifically identified classes during the first month of the fall semester 2012. Of the 150 undergraduate students completing surveys, 45 (30%) were seniors, 77 (51.3%) were juniors, and 28 (18.7%) were sophomores. No freshmen were included in the survey because health administration courses are not open to freshmen. The junior and senior students submitted their surveys while in a required upper division health administration course; the sophomores submitted their surveys while in a prerequisite introductory health administration course. None of the sophomore students had been accepted into the health administration program at the time they received the survey. A total of 28 students (23 undergraduate and 5 graduate) declared themselves "non-health administration majors" and were not included in the final analysis. The five non-health administration graduate students were in other health profession programs, taking a health administration course as a requirement for their major.

Preceptors and students were asked to identify writing skills they believed to be essential in the healthcare field. The list included 15 specific writing skills, and the respondents were to indicate the importance of each specific skill, based on a Likert scale. There were differences between what preceptors and students believed to be essential writing skills needed at entry into the professional career (see Table 1).

Table 1

Description of Preceptor and Student Perceptions of Essential Writing Skills

Writing Skill	% preceptors: skill is essential (*n*)**	% students: skill is essential (*n*)**
Collect information from variety of sources*	68.75 (32)	44.77 (172)
Condense materials and clearly convey meaning	68.75 (32)	56.07 (173)
Convey information accurately*	93.75 (32)	76.74 (172)
Write logically	68.75 (32)	63.58 (173)
Write persuasively	43.75 (32)	39.88 (173)
Write clear instructions	54.84 (31)	71.68 (173)
Write in styles appropriate for different readers	43.75 (32)	57.80 (173)
Write in business format for non-professional or non-academic audience	40.63 (32)	56.40 (172)
Write scientific/academic paper for publication for variety of readers*	0.00 (32)	31.79 (173)
Write a professional report for academic/medical audience*	6.25 (32)	49.71 (171)
Use a professional writing style*	46.88 (32)	66.86 (172)
Express ideas clearly in writing	68.75 (32)	72.83 (173)
Use correct grammar	71.88 (32)	75.14 (173)
Use correct punctuation	59.38 (32)	74.57 (173)
Spell correctly	65.63 (32)	80.92 (173)

*denotes statistical significance at $p < .05$

**differences in n reflect unanswered questions or unidentifiable answers by respondents

In some cases, a greater proportion of preceptors than students believed certain skills were essential, while more students than preceptors believed other skills were essential. Preceptors perceived the following skills more important than what students perceived:

- Collect information from variety of sources and
- Convey information accurately.

Conversely, students, more than preceptors, perceived the following skills to be essential:

- Write scientific/academic paper for publication for variety of readers,
- Write professional report for academic/medical audience, and
- Use a professional writing style.

Of the skills analyzed, the greatest percentage of preceptors reported that conveying information accurately is essential (93.75%), and the greatest percentage of students report that correct spelling (80.92%) is essential. Preceptors and students report that the ability to write for a scientific/academic paper for a professional audience is the least essential skill (0.00% and 31.7% respectively) compared to the other skills named.

The second component of the survey identified nine forms of communication frequently used within the healthcare setting. A greater percent of preceptors, more than students, identified e-mail and oral presentations without visuals as being used "always/almost always." A larger percent of students, more than preceptors, identified memorandum, oral presentation with visuals, formal reports, technical reports, policy alerts, legislative analysis, and policies/procedures to be forms of communication that they would use "always/almost always" in the work setting. The differences between perceptions of students and preceptors were significantly different at the 0.05 level for six of the skill sets (Table 2). In all but one skill set, greater percentages of students perceived the item would be used always or almost always. The five skill sets included formal reports, technical reports, policy alerts, legislative analysis, and policies and procedures. More preceptors than students believe that e-mail is used always or almost always.

Table 2

Description of Preceptors and Students Perceptions of Frequency of Use for Essential Forms of Written Communication

Form of Communication	% preceptors: skills almost/ always used (*n*)**	% students: skills almost/ always used (*n*)**
E-mail correspondence*	100 (32)	78.49 (173)
Other memoranda and correspondence	9.38 (32)	16.67 (168)
Oral presentations with slides/visuals	6.25 (32)	20.59 (170)
Oral presentations without visuals	9.38 (32)	8.67 (173)
Formal reports*	3.13 (32)	33.92 (171)
Technical reports*	0.00 (32)	28.49 (172)
Policy alerts*	3.13 (32)	37.57 (173)
Legislative analysis*	0.00 (32)	23.26 (172)
Policies and procedures**	18.75 (32)	55.49 (173)

*denotes statistical significance at $p < .05$

**differences in n reflect unanswered questions or unidentifiable answers by respondents

Further Results – Do Preceptors and Students Differ on "Important" Writing Skills and Frequently Used Forms of Written Communication?

Data about writing skills was recoded into dichotomous variables, with a ranking of five and higher categorized as "important" and scores of four and below categorized as "unimportant." Data about forms of communication used in early career were also recoded into dichotomous variables, with responses of "frequently" and "almost always/always"

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collapsed into a "frequently" category, while "almost never/never" and "occasionally" collapsed into an "infrequently" category.

When data were collapsed, 100% of the preceptors identified five writing skills as important (Table 3). These included ability to condense material; convey information accurately; write logically; express ideas clearly in writing; and use correct grammar. The preceptors felt that writing scientific papers was least important (34.38%). On the other hand, the largest percent (97.67%) of students felt that the ability to convey information accurately was important in the workforce, while they perceived the ability to write scientific papers (76.88%) to be least important. It is interesting to note that preceptor perceptions about writing a professional report for an academic/medical audience and writing scientific/academic papers for publication for a variety of readers differed significantly from student perceptions.

Table 3

Description of Preceptor and Student Perceptions of Important Writing Skills

Writing Skill	% preceptors: skill is important (*n*)**	% students: skill is important (*n*)**
Collect information from variety of sources	96.88 (32)	94.19 (172)
Condense material from variety of sources and clearly convey meaning	100.00 (32)	96.53 (173)
Convey information accurately	100.00 (32)	97.67 (172)
Write logically	100.00 (32)	94.22 (173)
Write persuasively	87.50 (32)	90.75 (173)
Write clear instructions	93.55 (31)	95.95 (173)
Write in styles appropriate for different readers	84.38 (32)	91.33 (173)
Write in business format for non-professional or non-academic audience	90.63 (32)	92.44 (172)
Write scientific/academic paper for publication for variety of readers*	34.38 (32)	76.88 (173)
Write a professional report for academic/medical audience*	59.38 (32)	91.23 (171)
Use a professional writing style	96.88 (32)	92.44 (172)
Express ideas clearly in writing	100.00 (32)	95.95 (173)
Use correct grammar	100.00 (32)	96.53 (173)
Use correct punctuation	96.88 (32)	95.95 (173)
Spell correctly	93.75 (32)	94.80 (173)

*denotes statistical significance at p<.05

**differences in n reflect unanswered questions or unidentifiable answers by respondents

Four specific forms of written communication—formal reports, technical reports, policy alerts and legislative analysis—were statistically significant at the 0.05 level (Table 4). With all four, students perceived the skills as more important than did the preceptors. The largest percentage of preceptors and students stated that e-mail correspondence is frequently or almost always used. The smallest percentage of preceptors (15.93%) reported that legislative analysis is an important form of written communication, while the smallest percentage of students (42.77%) believed that

oral presentations without visuals is used frequently, almost always or always. Perceptions of amount of use of formal reports, technical reports, policy alerts and legislative analysis differed statistically between preceptors and students.

Table 4

Description of Preceptor and Student Perceptions of Important Forms of Written Communication to be Used in the Workplace

Form of Communication	% preceptors: skills frequently, almost, always used (*n*)**	% students: skills frequently, almost, always used (*n*)**
E-mail correspondence	100.00 (32)	97.09 (172)
Other memoranda and correspondence	53.13 (32)	69.05 (168)
Oral presentations with slides/visuals	71.88 (32)	66.47 (170)
Oral presentations without visuals	50.00 (32)	42.77 (173)
Formal reports*	50.00 (32)	74.27 (171)
Technical reports*	25.00 (32)	69.77 (172)
Policy alerts*	31.25 (32)	78.03 (173)
Legislative analysis*	15.93 (32)	59.30 (172)
Policies and procedures	71.88 (32)	83.82 (173)

*denotes statistical significance at p<.05

**differences in n reflect unanswered questions or unidentifiable answers by respondents

DISCUSSION

This pilot study provides preliminary insight about student and preceptor perceptions of needed writing skills and forms of written communication used in health administration careers, and it sheds light on potential inclusions for undergraduate and graduate health administration programs. The perceptions of writing skills needed in the workplace and forms of written communication used helps educators identify specific skills to teach and types of assessments to ensure skills are of sufficient quality. Faculty knowing student perceptions, can help identify gaps in present education, but also provide insight into student beliefs about the activities to be performed after graduation.

Preceptors surveyed unanimously state that e-mail is an essential form of written communication used in the workplace. Conversely, fewer than 20% of preceptors report that the other forms of communication are essential. This speaks to the importance of e-mail use in the career-starting job and suggests that the newly hired may be performing other duties that do not involve written communication outside of e-mail. Interestingly, data reveal that the smallest percentage of preceptors believe that formal reports and legislative analysis are essential forms of communication, while the smallest proportion of students believe that oral presentations without slides/visuals is an essential form of communication. This discrepancy suggests that students have low expectations about the need to be able to present information. Faculty who teach in the traditional setting should consider the value of modifying their instruction to include assessments where presentations are made without use of technology. In addition, fewer students than preceptors believe that e-mail is an essential form of written communication. This difference may stem from students own use of technology to communicate and a belief that, once in the workforce, they will be using their preferred means of communicating.

The percentage of preceptors who say that using correct spelling and punctuation is important is not quite 100%. As

faculty, that finding is considered low. Perhaps some preceptors do not provide work for students that require grammar skills; such activities could be clerical or organizational in nature. Another reason could be that preceptors view spelling and punctuation as a function of automatic computer corrections.

More students believe that formal reports, technical reports, policy alerts, and legislative analysis are important compared to the percentage of preceptors that believe the same thing. Such findings suggest that students might believe they will be doing more complex work in their initial job than what preceptors indicate the students will actually do. In addition, student perceptions might be a function of the types of writing assignments students are given to prepare them for their careers beyond their residency. If student perceptions are inferred from class assignments, faculty may need to set expectations or link learning objectives to career skills. Directors of health administration programs may wish to consider including a course in writing skills with "real world" assignments, or such assignments should be included in the appropriate course(s) in the curricula. For example, a health policy class could include the development of a policy brief or legislative alert as written assessment.

Future Research

This pilot study was designed to explore the importance of writing skills and written communication in health administration curricula and jobs. Future study should examine the difference in writing skills and forms of communication needed in both residency and post-graduation employment at various stages of the career path (for graduates of both bachelor's and master's degree programs). Future study should also include gaining a better understanding of the writing skills and forms of written communication needed, as well as student expectations of what their first job in the field will entail. Similarly, future research should garner a greater understanding of the activities and skills, including those writing-based, performed during the residency. Additional examination could be performed to see if there are differences in skills and forms of communication commonly used by graduates of bachelor's and master's degree programs.

Limitations

The study has a few limitations. Pilot study results may not be truly generalizable to the needs of other institutions and of preceptors in other programs. Although statistically adequate, having greater statistical power would either confirm or possibly change the results shown.

Students may have answered questions based on what they perceive to be needed after graduation or sometime during their careers as students are typically unaware of the specific duties or assignments requested as part of their residency until they begin the residency. No students surveyed were taking their residency course. Collecting data from residency students would provide valuable insights into how health administration programs could prepare students for the last learning experience before graduation and in their careers.

Another limitation is the few demographic questions asked of students. Because of the small number of students in this pilot project, the authors chose to maintain student anonymity at the sacrifice of capturing demographics. These demographics, including students' age, sex, and work experience, would be useful in better understanding students and their perceptions of writing skills.

A final limitation is that the study focuses on traditional classroom learning. With more programs moving toward online or hybrid formats, Power Points are appropriate for these venues, but faculty still should emphasize that Power Point presentations may not be acceptable in the workforce.

CONCLUSION

This pilot study is the first step to understanding the writing skills needed and forms of written communication perceived as important by health administration students and preceptors of health administration residency programs. The difference in writing skills needed and forms of written communication used in the field show the need to evaluate course assignments to ensure that students are prepared for their careers.

REFERENCES

Benjamin, R., & Chun, M. A. (2003, summer). A new field of dreams: The Collegiate Learning Assessment Project. *Peer Review*, 26-29.

Bradley, E. H., Cherlin, E., Busch, S. H., Epstein, A., Helfand, B., & White, W. D. (2008, Winter-Fall). Adopting a competency-based model: Mapping curricula and assessing student progress. *The Journal of Health Administration Education, 25*(1), 37-52.

Branz, K. A. (2008). ACHE healthcare executive competencies assessment tool. *Healthcare Executive* (supplement), 1-32.

Calhoun, J. G., Vincent, E. T., Calhoun, G. L., & Brandsen, L. E. (2008). Why competencies in graduate health management and policy education? *Journal of Health Administration Education, 25*(1), 17-35.

Christensen, D., Barnes, J., & Rees, D. (2004). Improving the writing skills of accounting students: An experiment. *Journal of College Teaching & Learning, 1*(1), 45-52.

Enos, M. F. (2010, September). Instructional interventions for improving proofreading and editing skills of college students. *Business Communication Quarterly, 73*, 265-281. Retrieved from http://bcq.sagepub.com/content/73/3/265. doi:10.1177/1080569910376535.

Gelmon, S. B., Reagan, J. T., & Merrill, R. B. (1996, fall). Assessment in a quality improvement framework: Applications in health administration education. . Funded by HRSA, Contract #HRSA 92-499(P).

Gray, F. E., Emerson, L., & MacKay, B. (2005). Meeting the demands of the workplace: Science students and written skills. *Journal of Science Education and Technology, 14(*4), 425-435.

Institute of Medicine (2003). *Health professions education: A bridge to quality*. Washington, DC: National Academies Press.

Kelley, C. A., & Gaedeke, R. M. (1990). Student and employer evaluation of hiring criteria for entry-level marketing positions. *Journal of Marketing Education, 12*, 64-71. doi:10.1177/027347539001200309.

Levy, C. M. (1995). The "R" that psychology forgot: Research on writing processes. *Behavior Research Methods, Instruments, & Computers, 29*(2), 137-145.

Martin, B. L., & Briggs, L. J. (1986). *The affective and cognitive domains: Integration for instruction and research*. Englewood Clifts, NJ: Education Technology.

Messum, D., Wilkes, L., & Jackson, D. (2011). Employability skills: Essential requirements in health manager vacancy advertisements. *Asia Pacific Journal of Health Management, 6*(2), 22-28.

National Commission on Writing (2005). Writing: A powerful message from state government: National Writing Project. Retrieved from http://www.nwp.org/cs/public/print/resource

Quible, Z. K., & Griffin, F. (2007). Are writing deficiencies creating a lost generation of business writers? *Journal of Education for Business, 83*(1), 32-36.

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