EMPLOYERS' PERCEPTIONS OF THE WRITING ABILITIES OF THE GRADUATES OF THE OKLAHOMA STATE UNIVERSITY COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES

By

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DEDICATION

WOW! Twenty years of school have passed quickly, and I have completed my master's thesis. It seems like just yesterday I started this process. Without the constant support from four very special people, I would not be where I am today, and I would not have accomplished this dream.

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there is a way. Rajeanna showed me I could accomplish anything with determination. Thanks! You are a butterfly in my life; you remind me to always shed the shell and take flight.

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CHAPTER I

INTRODUCTION

Writing has a different level of importance to many people; however, written communication skills may very well be the determining factor in being an outstanding candidate for the perfect job (NACE Research, 2006; Stewart, 1987). It has been argued that writing should only be taught in the confinements of the English classroom (Stewart, 1987); but throughout time, the ability to write well has become a major characteristic employers seek in recent college graduates (NACE Research, 2006). According to the National Association of Colleges and Employers Research *Job Outlook 2006*, communication skills top the list of importance when hiring new college graduates.

Leaving the art of writing to English instructors creates a hole in the learning process. Agricultural educators must incorporate the basics while providing students a strong foundation in agriculture (Stewart, 1987; Aaron, 1996; Benjamin, 1962). College students must increase their knowledge of writing and have the ability to write if they are to succeed (The National Commission, 2004; Andelt, Barrett, & Bosshamer, 1997). "Developing the kinds of thoughtful writers needed in business, and elsewhere in the nation's life, will require educators to understand writing as an activity calling for extended preparation across subject matters — from kindergarten through college" (The National Commission, 2004, p. 20).

According to The National Commission on Writing for America's Families, Schools, and Colleges (2004), communication skills are the backbone to success in the

workforce. Written communication is a skill needed in all areas of industry, and it is a skill lacked by many new college graduates in a variety of industries (The National Commission, 2004). In the 2004 National Commission report, employers reported approximately two-thirds of recent hires have the writing abilities valued by the industry. However, according to The National Commission (2004), employers are still unsatisfied with the writing abilities and the writing styles of college graduates. (The National Commission, 2004), and employers determine the marketability of new college graduates (NACE Research, 2006; Andelt, Barrett, & Bosshamer, 1997). One employer commented in the 2004 National Commission report that poor writing is a "kiss of death" to a new college graduate. According to The National Commission (2004), employers also expressed their desire for students to gain more writing skills while in college. "The [National] Commission believes that much of what is important in American public and economic life depends on clear oral and written communication" (The National Commission, 2004, p. 5). Furthermore, Singh, Ekanem, Tegegne, Muhammad, and Comer (2004) suggested knowledge of employability skills will aid institutions in preparing students with skills desired by the industry and developing more effective curriculum.

According to The National Commission (2004), employment is hinged on oral and written communication skills. They are the blocks upon which America builds its strength and its life. For students to become valuable, productive American citizens, they must be able to think, reason, and communicate efficiently (The National Commission, 2003). Writing is considered a necessity in life, and many times it is not only a skill used by those in the workplace but also a skill used by all ages to relieve stress and frustrations

(The National Commission, 2004). “Writing is not a frill for the few, but an essential skill for the many” (The National Commission, 2003, p. 11). Although communication skills rank on the top of the *2006 Job Outlook* list, new college graduates fall short in having the communication skills for the workplace (NACE Research, 2006).

According to NACE Research (2006), employers who have contributed to *Job Outlook 2006* have considered communication skills a key characteristic since 1999, and 2006 is no different. NACE Research (2006) reported some graduates lack the ability to write and present information, which leads to a group of new college graduates unprepared for the communication skills needed in the workplace (NACE Research, 2006). The 2004 report conducted by The National Commission on Writing for America’s Families, Schools, and Colleges stated, “Writing is a ‘threshold skill’ for both employment and promotion, particularly for salaried employment” (2004, p. 3). According to Agress (2002), the need for writing in the workplace is rising, and the writing ability of graduates is declining. Fewer and fewer students are learning how to write; institutions are placing a higher significance on the ability to do other things while forgetting the basic communication skills, “but good writing need not to be a dying art” (Agress, 2002, p. 2).

According to The National Commission (2004), the need for good communication skills is great because of the increase in technology and the ability to communicate. Employers are interested in how technology (e.g., e-mail) will impact communication. E-mail has increased the need for employees to communicate. Furthermore, e-mail is easy to track, which makes communicating even more important (The National Commission, 2004).

Writing in agriculture began many centuries ago, and it has become one of the major means of agricultural communication today (Burnett & Tucker, 2001). The need for better communication skills for graduates entering the agricultural industry is apparent. According to Cobia (1986), throughout the years, many things have been blamed for the lack of good writing skills, but working to improve writing skills within each discipline may be the key. Because writing has its place in each discipline, that discipline must take responsibility to teach its students (Cobia, 1986). Each discipline also has a completely different style; therefore, students must learn the style necessary for their area of study (Cobia, 1986). According to Burnett and Tucker (2001), writing is a must in agriculture.

> All of us do not need to attain the same level of skills in animal science, entomology, or soils because these skills are not needed in all agricultural professions. But writing is an essential skill for the educated in any area of agriculture. Like all other skills, good writing is the product of proper training and practice (p. iv).

Integrating other areas of academics into agriculture has many benefits. A balanced education must contain liberal arts curriculum and vocational curriculum (Roberson, Flowers, & Moore, 2001). “Vocational and academic integration is a marriage of both types of curricula in order to teach the many skills necessary for students’ future successes” (Roberson, Flowers, & Moore, 2001, p. 2). To maximize a student’s ability in the workplace, he or she must have a well-rounded foundation in a variety of skills. This makes his or her education more notable and respected. The Carl D. Perkins Act of 1990 had a major impact on integrating the basic educational skills into vocational education,

which included writing and reading (Roberson, Flowers, & Moore, 2001). According to the 2003 report of The National Commission on Writing for America's Schools and Colleges, the United States has neglected writing, the most of the basic skills. Furthermore, Southern Regional Educational Board (SREB) teachers listed "becomes better prepared for the workforce" (Roberson, Flowers, & Moore, 2001, p. 8) as the greatest benefit to integrating academic education into vocational education. As for the SREB teachers' attitudes toward the education integration, they ranked better-prepared employees fourth. In 2001 SREB teachers study researchers concluded, "The most important student benefits from vocational and academic integration according to agricultural teachers were those which dealt with workforce preparation of and higher-level skill development by students" (Roberson, Flowers, & Moore, 2001, p. 13).

Although employers value writing skills in every new college graduate, the institution the graduate attended must respect writing abilities as well. Instructors and administrators must be willing to sacrifice time and effort to instill valuable writing skills into all levels of students in all disciplines (The National Commission, 2004; Cobia, 1986; Schneider & Andre, 2005). According to The National Commission (2004) and Casari and Povlacs (1988), although administrators complain about low writing abilities, the different disciplines do not believe it is their responsibility to teach such skills. Students seek a higher education to gain skills, such as writing, needed in the workforce. Many fields require employees to write technical reports, proposals, etc. Employers look at well-developed writing as a well-equipped mind (The National Commission, 2003; Casari & Povlacs, 1988). According to Casari and Povlacs (1988), tasks are not based on writing, but rather, they include writing; therefore, hiring a special writer to complete the

task would not be efficient in agriculture or various other industries. Casari and Povlacs (1988) suggested the type of writing in many industries is based on the type of project, which can range from short- to long-form writing; however, the majority of the writing projects are short-form (The National Commission, 2004). According to The National Commission (2004), everyone should contribute to helping students obtain sufficient writing abilities for the workplace, and all grade levels and disciplines should have to meet certain criteria for teaching writing. “In short, if students are to learn, they must write” (The National Commission, 2003, p. 9).

The National Commission (2005) summed up the need for writing in the classroom and workplace. Writing is not a basic skill to overlook; it is a must. “Writing is how students connect the dots in their learning. It is how graduates connect the dots in their careers in the private sector. And it is how public servants connect with themselves and their constituents” (The National Commission, 2005, p. 28).

Problem Statement

According to *Job Outlook 2006*, communication skills are a key qualification for every job candidate in the 21st century (NACE Research, 2006). Communication skills top the list of skills employers desire in new college graduates; in addition, communication skills top the list of skills lacking in new college graduates (NACE Research, 2006). Because strong communication skills are desired in the workplace, institutions of higher education need to evaluate employers’ perceptions of their graduates’ writing abilities (Stevens, 2005). Although employers value communication skills, OSU CASNR did not know if its graduates had the writing skills required in the agricultural industry.

Purpose and Objectives

The primary purpose of this study was to determine the 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters' perceptions of the writing abilities of the graduates of OSU CASNR. This study desired to determine if employers who hire CASNR graduates are satisfied with the writing abilities of those graduates.

The objectives of this study were to

1. Describe the characteristics of the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters and recruiting organizations;
2. Determine the importance of writing when recruiting new employees;
3. Determine the frequency and types of writing required of a recent college graduate; and
4. Determine employers' perceptions of the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources.

Definition of Terms

Agriculture – "the science, art, or occupation concerned with cultivating land, raising crops, or feeding, breeding, and raising livestock; farming" (Nichols, et al., 2001, p. 40).

Business Roundtable – "an association of chief executive officers of leading U.S. companies with $4.5 trillion in annual revenues and more than 10 million employees" (Business Roundtable).

Career Fair – a specific setting for students to interact with prospective employers and gain insight into full-time job and internship opportunities (Payne & Sumter, 2005).

Career Fair Recruiter – individuals who attend career fairs and promote an organization to prospective employees or interns (Hansen, 2006).

Communication – "the imparting of interchange of thoughts, opinions, or information by speech, writing, or signs" (Nichols, et al., 2001, p. 414).

Entry-level position – "of, pertaining to, or filling a low-level job in which an employee may gain experience or skills" (Nichols, et al., 2001, p. 650).

New College Graduate – "… individuals who have recently made the transition from school to the workplace" (U.S. National Science Foundation, 2003, p.1).

Writing – "… properly understood, is thought on paper" (The National Commission, 2003, p. 13). "… is a convenient method of getting facts, ideas, attitudes, opinions and emotions from yourself to one other person, a special group or a large general audience" (Burnett & Tucker, 2001, p. 1).

Scope of the Study

The scope of this study was limited to the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters from 2000 to 2005. Although 142 (N=142) professionals have recruited at the Agricultural, Food, Environmental, and Natural Sciences Career Fair from January 1, 2000, through December 31, 2005, the researchers could obtain only 112 sufficient addresses; therefore, only 112 (N=112) recruiters were used in the study

Assumptions of the Study

The following assumptions were made in regard to this study:

1. The recruiters provided honest responses to survey questions.

2. The recruiters could identify good writing and the need for writing in the agricultural industry.
3. The recruiters were familiar with the new college graduates interviewed and hired within their organization.
4. The recruiters had interviewed or hired new college graduates from the OSU CASNR.

Limitations of the Study

The study included the following limitations:

1. Data obtained from career fair recruiters were based upon their perceptions.
2. The OSU CASNR Career Services did not host a career fair for the spring 2000 and 2001 semesters.
3. The OSU CASNR Career Services did not have employer information for the spring 2002 semester.

Significance of the Study

The results of this study are important in evaluating the writing abilities of the graduates of OSU CASNR. Because communication skills are a necessary component of a well-rounded, well-prepared college graduate, it is necessary to perform a periodic study of this caliber (Stevens, 2005). By performing this study, OSU CASNR has been able to evaluate the writing abilities of its graduates. According to NACE Research *Job Outlook* 2006, “Employers say the candidate with communication skills has the edge” (p. 14). Communication skills are becoming the key to being the outstanding candidate in the

21st century, and for graduates to obtain better paying, higher class positions, they must possess communication skills (NACE Research, 2006; National Commission, 2004).

Summary

Chapter I supplied the background and need to determine the employers' perceptions of the writing abilities of the graduates of OSU CASNR. It demonstrated the need for writing in the workplace and the emphasis the workplace puts on writing. It also addressed the need for writing in agriculture and teaching writing in an agricultural context. Chapter I established a reason for writing and how writing can benefit each new college graduate. It also provided the problem statement, purpose and objectives, definition of terms, scope of the study, assumptions of the study, limitations of the study, and significance of the study.

CHAPTER II

REVIEW OF LITERATURE

The review of literature has six sections that address the background and importance of writing in agriculture and the workplace. It outlines the need for graduates to have writing skills for workplace success. The first section outlines previous studies in the area to form a conceptual framework. The second section gives the history of writing in agriculture and how it became an important component in the communication world. The third section describes the importance of writing in agriculture and the workplace. The fourth section addresses teaching writing as a part of agriculture-related classes. The fifth section provides a background and reasoning for survey research design. The final section summarizes the research and the importance of writing.

Conceptual Framework

According to The National Commission (2004), writing has become an integral part within industry communication. Employers value writing abilities, and they are willing to pay higher salaries to employees who possess writing skills (The National Commission, 2004). In September 2004, The National Commission on Writing for America's Families, Schools, and Colleges released a report addressing the writing skills of new college graduates. *Writing: A ticket to work … or a ticket out: A survey of business leaders* surveyed 120 human resource directors from Business Roundtable organizations concerning the importance of writing in the workplace. "Educational

institutions interested in preparing students for rewarding and remunerative work should concentrate on developing graduates' writing skills" (The National Commission, 2004, p. 19). When evaluating the writing skills of new college graduates, employers agreed new college graduates lack writing communication skills; however, they expect new college graduates to possess a high level of writing ability. Employers reported 70% of new college graduates have some form of writing responsibility, illustrating the importance of writing in the workplace based upon the perceptions of the human resource directors. "In a nutshell, the survey confirms our conviction that individual opportunity in the United States depends critically on the ability to present one's thoughts coherently, cogently, and persuasively on paper" (The National Commission, 2004, p. 5). The 2004 National Commission study found one-third of the new college graduates employed by the Business Roundtable did not have sufficient writing abilities; therefore, writing abilities of the graduates hired by less prominent employers may have even more trouble writing (The National Commission, 2004).

In 2005, The National Commission on Writing for America's Families, Schools, and Colleges followed up the industry study by performing a study on each state's government. The study concluded writing ability in the government sector is more important than in the private sector. Government professionals are expected to communicate with a diverse group of constituents and are asked to perform a variety of writing tasks. This study determined government employees needed a higher degree of writing ability than private sector employees. Forty-nine of the 50 respondents reported they required two-thirds of the professionals in their state to write, including e-mails, memos, and correspondence (The National Commission, 2005).

Although the agricultural industry wants students to know how to write (Andelt, Barrett, & Bosshamer, 1997), students do not see the need to become sufficient in their writing abilities (Jackson, 1972; Wellman, McMullen, and Hirsch, 1990). In a study by the English Counseling Service of the University of Illinois College of Agriculture by Jackson (1972), 95% of the participants responded that good written communications skills are important in their agricultural profession. Participants indicated they wrote everything from business letters to news releases, and they reported the writing courses they took in college were useful in their careers (Jackson, 1972; Scanlon and Baxter, 1993). Students must know how to write; however, students, often times, fail to realize the importance of writing (Jackson, 1972; Wellman, McMullen, and Hirsch, 1990). According to Jackson (1972), the University of Illinois study determined the need for writing in agriculture, and it reiterated the need for students to have an ability to write no matter the chosen field. Furthermore, Kelemen (2006) found students believed a course in agricultural writing helped them with their writing abilities. However, budget cuts and time constraints have limited professors ability to teach writing (Jackson, 1972).

Scanlon and Baxter (1993) examined the writing abilities of the 1988, 1989, and 1990 graduates of the Pennsylvania State University (PSU) College of Agricultural Sciences and Natural Resources to determine the amount and types of writing performed by these graduates. The researchers used 309 of the new college graduates and 48.4% responded. Seventy-five percent of the respondents reported it was important for professionals in their positions to write well, 86% of the respondents reported writing skills were important for career promotion, and 56% stated English courses should require several major writing assignments. More than half of the respondents reported

they wrote less than eight hours a week, and the majority of the time they wrote for readers with minimal knowledge of the subject. For the most part, the respondents were satisfied with the writing education they received while undergraduates at PSU. Graduates also reported that a variety of classes outside of the college helped them develop their writing abilities.

In a study completed on 17 agricultural and engineering firms and agencies, Casari and Povlacs (1988) concluded 99.13% of working professionals have some type of on-the-job writing responsibility. Of that 99.13%, 60% wrote on a daily basis, providing a strong foundation for the need of writing in agriculture. Types of writing depended on the level and the position of the professional. Professionals used writing in "short form" more often than "long form" (Casari & Povlacs, 1988) According to Casari and Povlacs (1988) short-form writing included such documents as the memorandums, letters, and short reports, and long-form writing included more technical reports written from the shorter reports. Typically, in this study, the upper-level professionals wrote the more in-depth reports; whereas, the entry-level professionals provided the background for the longer forms of writing.

When surveying agribusiness employers to determine the skills most desired by employers, Litzenberg and Schneider (2001) found employers ranked communication skills second, close behind interpersonal skills, and the ability to write a technical report ranked 23rd out of the 74 characteristics of agribusiness management. Litzenberg and Schneider (2001) suggested educational institutions must adapt their educational experience to accommodate the value employers put on communication skills and to increase the quality of an agricultural education. According to Litzenberg and Schneider

(2001), employers seek students with the highest level of skills possible; however, each industry within agriculture has specific skills, which also are important for career preparation.

In a University of Nebraska-Lincoln (UNL) study, Andelt, Barrett, and Bosshamer (1997) found employers wanted new college graduates to possess communication skills to be successful in the agricultural industry. Andelt, Barrett, & Bosshamer (1997) concluded the faculty at UNL is doing a good job equipping students with the communication skills needed; however, for students to be marketable, faculty must better prepare students for the workplace.

Radhakrishna and Bruening (1994) found the value of written communication skills in agriculture varied between employers and students; however, both groups indicated writing skills play a valuable part in the success of an agribusiness. Students ranked the need of communication skills higher than employers ranked them and believed they had more communication skills than employers perceived them to have. In all cases, students ranked themselves higher than employers ranked them. Although both groups perceived students as having a high degree of communication skills, both groups believed communication skills still have room for improvement. “Individuals who plan to enter the highly complex world of agribusiness are going to need specialized skills” (Radhakrishna & Bruening, 1994, p. 15).

Parrish, Brumback, & Squires (1985) surveyed students to determine their perceptions on writing to learn in agronomy. Eighty-six percent of the students expressed writing helped them learn in agronomy; however, 21% perceived writing in agronomy was not worth the effort it required. In addition, 73% of students believed that short

writing assignments encouraged more learning than long writing assignments such as term papers. Of the class analyzed, instructors had more short writing assignments than long writing assignments. In a writing-across-curriculum program review at Virginia Tech University, Wellman, McMullen, & Hirsch (1990) found 88% of forestry graduates had the writing abilities they needed to enter the workforce; however, only 19% believed the program helped them develop their writing skills.

Stevens (2005) performed a study of desired skills of Silicon Valley employers. This was one of the first studies performed to determine the writing abilities employers most seek in new college graduates based on the employers' perceptions; therefore, this study was a leader in the research. Although the 2004 National Commission on Writing for America's Families, Schools, and Colleges report addressed writing in the workplace, it did not specifically address the employers' satisfaction of the writing skills of new college graduates; the study sought to find the importance of writing in the workplace (The National Commission, 2004). Stevens (2005) sought to determine employer satisfaction. According to Stevens (2005), the study chose the fall 2000 and spring 2001 career fair recruiters of Silicon Valley State University as the population. It asked employers to answer three questions to determine how satisfied employers were with the writing abilities of the new college graduates. Furthermore, the study determined employers were not fully satisfied with either the business communication skills of new college graduates or the workplace writing skills of new college graduates. The third question, which was open-ended, helped Stevens better understand employers' needs. For example, employers desired improved oral communication skill, improved written communication skills, improved interpersonal skills, and improved spelling and grammar.

History of Writing in Agriculture

According to Burnett and Tucker (2001), agricultural writing has spanned many lifestyles and generations because of its importance to society and its variety of audiences. From as early as the colonial period, agricultural publications have been a part of the media. Burnett and Tucker (2001) stated many highly educated people wrote agricultural publications. “Benjamin Franklin, the best writer of the colonial period, probably did more to promote agricultural writing than anyone at that time, but he never farmed” (p. 216).

Burnett and Tucker (2001) developed a timeline with important dates of agricultural writing. In 1588, Thomas Hariot published *Briefe and True Report of New Found Land of Virginia*, the first-known agricultural publication of the new world. In his publication, he wrote about crops and other agricultural products. Agricultural publications continued through centuries. In 1748, *Essays on Field Husbandry*, by Jared Eliot, became the publication of the era, and in 1760, the essays were published together as a book. According to Burnett and Tucker (2001), George Washington asked Congress to approve a board to help disseminate agricultural information in 1796, but it was denied. Boone, Meisenbach, and Tucker (2000) stated farmers received most of their agricultural information from Europe prior to the early to mid 1880s. Because of America’s technological and practical advancement at this time, agricultural information was disseminated faster. In the late 1800s, agricultural societies, a trend from Europe, intensified information dissemination and formed libraries that contained mass numbers of agricultural publications and published their own agricultural publications later (Boone, Meisenbach, & Tucker, 2000). According to Wada, et al. (2000), information

dissemination is important in agriculture because of the research involved, and the inability of some new college graduates to write has caused the research sector of the industry to realize the importance of writing and publishing agricultural information.

Furthermore, the first agricultural magazine, *Agricultural Museum*, debuted in the early 19th century; however, it only survived two years (Burnett & Tucker, 2001; Boone, Meisenbach, & Tucker, 2000). Shortly after, the first agricultural book, *Arator,* was published to address crop rotation, manure handling, plowing, and soils. The 1800s brought the production of highly circulated publications and publications that only lasted a few years (Burnett & Tucker, 2001). According to Boone, Meisenbach, and Tucker (2000), the fate of these publications came because of the lack of the ability to fund such a project as well as the lack of ability to find quality individuals to manage the publication. However, some overcame the obstacles and continued publication. Boone, Meisenbach, and Tucker (2000) stated, because of the growth of agricultural publications, agricultural publications became a separate entity from the agricultural societies. Congress published its first publication in 1828, which addressed the issue of silk worms (Burnett & Tucker, 2001; Boone, Meisenbach, & Tucker, 2000). In 1840, the *Prairie Farmer*, gained popularity and became the largest circulated publication of the West. 1842 was the beginning of the oldest farm magazine, *American Agriculturist*. In less than 35 years, it had combined 26 periodicals (Burnett & Tucker, 2001). “During that time [1850s], 80,000 copies of a single issue of the *American Agriculturalist* were sold (Boone, Meisenbach, & Tucker, 2000, p. 8).

In 1862, agriculture changed forever, and the United States Department of Agriculture (USDA) was developed to help disseminate information to the public

(Boone, Meisenbach, & Tucker, 2000). The USDA had a commitment to the public to represent agriculture in all aspects; it brought agriculture to America. The first class on agricultural journalism was taught on the Iowa State University campus (Burnett & Tucker, 2001). According to Burnett and Tucker (2001), the Smith-Lever Act of 1914 began a rich tradition in extension and agricultural writing. The act obligated university personnel to distribute information to the urban and rural population. This became a huge communication route for agriculture; however, the obligation of agricultural writing has expanded beyond university personnel. Furthermore, the role of agricultural writing has become a main means of communication within the industry (Burnett & Tucker, 2001).

Burnett and Tucker (2001) recognized new college graduates are expected to be the next means of dissemination of information; therefore, their educational experiences must prepare them to be not only industry professionals but also communicators. As an expert in a field within the industry of agriculture, a new college graduate may be asked to serve as an expert in a daily, weekly, or monthly column of a newspaper or magazine (Burnett & Tucker, 2001). Although this may not require an advanced degree in communications, it does require the ability to write and put clear, concise thoughts on paper. Because of the importance of agriculture to America and the world, industry professionals must be able to convey the message of agriculture and its entities to the public. Miscommunication could cause a major disaster in the agricultural industry (Burnett & Tucker, 2001).

Burnett and Tucker (2001) stated each farm received an average of six farm publications by 1955. As of the early 1990s, agricultural media included a wide variety of types, from newspapers to television stations. Although many years have passed since the

introduction of the first agricultural publication, agricultural writing still remains a large part of the process of disseminating agricultural information (Boone, Meisenbach, & Tucker, 2000).

Importance of Writing

Importance of Writing in Agriculture

Burnett and Tucker (2001) characterized writing as an integral part of agriculture because of the need for recording knowledge. Writing, more than speaking, allows an individual the ability to think thoroughly through what he or she wants to say before releasing it to others, which helps the writer present information in the best way possible. Extension services use writing to get the same message to a variety of constituents, which helps agriculturists communicate different types of information to different people at different times (Burnett & Tucker, 2001). “These [agricultural] professionals often submit material to mass media — magazines, radio, television, newspapers, Web sites — to help promote their particular business or their industry” (Burnett & Tucker, 2001, p. 91).

In 1862, the Morrill Land Grant College Act founded the land-grant colleges and universities (Burnett & Tucker, 2001; Benjamin, 1962). Because of the beliefs of many of the early agriculturists, land-grant institutions were designed to encourage students of a rural background to obtain a formal education (Burnett & Tucker, 2001; Benjamin, 1962). According to Benjamin (1962), agriculturalists believed a formal education had to incorporate not only agriculture but also arts, sciences, math, etc. to give rural students a well-round, quality education. The roots of the land-grant institutions are strong in providing students with a diverse background rich in many disciplines, and their founding

principles are still prevalent today (Benjamin, 1962; McDowell, 2002; McDowell, 2003). “Written communication skills are vital for undergraduate students seeking careers in food production or marketing, yet writing instruction is often treated as secondary to training in technical skills” (Maciorowski & Ricke, 2000, p. 196).

Maciorowski and Ricke (2000) suggested the focus of the agricultural industry has changed to a more consumer-directed industry throughout the years. With this adjustment, the industry has had to adapt to consumers’ desires to maintain good relations within the industry. According to Maciorowski and Ricke (2000), agriculturalists can use writing to communicate to the agricultural and non-agricultural public and to soften the line between the industry and the consumer. However, to use written communication, one must be able to write. “If students cannot write clearly, they will have difficulty in expressing technical ideas to those outside their field of expertise, either domestically or internationally” (Maciorowski & Ricke, 2000, p. 197). With the increase in the agricultural global market (Graham, 2001), written communication has become even more important (Maciorowski & Ricke, 2000).

According to Flowers and Reaves (1991), Scanlon and Baxter (1993), and Maciorowski and Ricke (2000), writing is an excellent way to increase learning in the agricultural classroom. Through writing, agricultural students can develop and use critical thinking skills and demonstrate and profess their knowledge. “Students in more courses should receive instruction on effective writing strategies and literature searches, rather than making the English department fully responsible” (Maciorowski & Ricke, 2000, p. 203).

In a study by Scanlon and Baxter (1993), the need for better writing in the workplace has caused a chain of movements to incorporate writing-across-the-curriculum programs. Aaron (1996) found the University of Kentucky animal science department required all majors to participate in the writing-across-the-curriculum movement by enrolling in a seminar class that emphasized the importance of communication skills in the animal science industry. The course syllabus included a statement about writing:

> As a graduate of the Department of Animal Sciences, you must be armed with critical thinking and communication skills to meet these ever-increasing challenges. … Your future success in these endeavors rests on the ability to express yourself in written and oral form using standard conventions of the English language. (Aaron, 1996, p. 2814)

Macioroswki and Ricke (2000), Scanlon and Baxter (1993), Parrish, Brumback, and Squires (1985) suggested students need more experience writing for real-world scenarios and more uniform writing assignments to gain the necessary writing skills for the workforce. Students need to be introduced to the same type of writing during their college career, so they can begin to develop their own styles of writing. Parrish, Brumback, and Squires (1985) stated learning goes beyond the ability to recall a certain plant type; it is the ability to apply and control information. “Writing in agronomy courses is not a luxury but an effective way to teach and learn” (Parrish, Brumback, & Squires, 1985, p. 27).

According to Flowers and Reaves (1991), the use of a common research paper in an agricultural classroom enhances the students’ ability to think and convey those thoughts on paper. “As they write, look at what they write, and think about what they

write, they discover relationships, they interpret meanings for themselves, they apply what they have experienced, they sequence, they synthesize—they learn" (Flowers & Reaves, 1991, p. 10). Additionally, Scanlon and Baxter (1993) desired for more writing courses to be available in the College of Agricultural Sciences, for different types of writing assignments that target a diverse group of constituents, and for advisors to promote writing courses.

In a Scanlon and Baxter (1993) study, new college graduates desired courses that equipped them with a diverse group of skills. According to the respondents, writing has an important part in the educational system. The study reported the majority of new college graduates are not asked to write intensively; however, the study determined new college graduates are less likely to use written communication because of a lack of writing ability. Wada, Mian, Anaso, Gworgwor, Odo, and Misari (2000) stated, "To scientists at large, we urge you to loosen up and start writing so as to perfect the art of writing for the benefit of the scientific community, students and the agricultural sector of the economy" (p. 52).

Berghage and Lownds (1991) recognized horticulturists must write because of their obligation to communicate with a variety of constituents at different levels. In an evaluation of a writing program at Virginia Tech, Wellman, McMullen, and Hirsch (1990) found incorporating writing into forestry courses had benefits, which included making students aware of the amounts and types of writing forestry professionals are required to do. However, students did not consider writing beneficial to their education. "We are convinced of the educational soundness of writing in agronomy; we commend

those who have used it and encourage its wider use" (Parrish, Brumback, & Squires, 1985, p. 29).

Harder (2006) characterized 4-H, which has been a nationally recognized youth organization for more than 100 years, as an excellent program that helps youth gain and retain valuable public speaking and oral communication skills. However, written communication skills have become "the neglected life skill" (Harder, 2006, p. 2). According to Harder, 4-H'ers are required to write one time a year; however, 4-H would be a great way to integrate writing into agriculture and students' lives at a young age.

Importance of Writing in the Workplace

According to Zinsser (2006), "Countless careers rise and fall on the ability or the inability of employees to state a set of facts, summarize a meeting or present an idea coherently" (p. 165-166). Smith and Bernhardt (1997) stated professionals spend as much as 40% of their time writing or gathering information to write. "Poor writing is bad business" (Smith & Bernhardt, 1997, p. 4).

According to The National Commission (2005), writing skills are more important in the government sector than in the private sector because of the amounts and types of writing required of governmental employees. One respondent to the study said e-mail is a huge contributor to the miscommunication within the government sector. The 2005 National Commission report declared a sender can spell check the document, but the sender will not take a second to check the content of the e-mail. This leads to miscommunication, which could cause serious problems in the government sector (The National Commission, 2005). Because the United States government uses writing to communicate policies to the public, its business revolves around writing. "Beginning

with the United States Constitution, this country has always relied on clear and compelling writing to connect government with its citizens in matters both large and small" (The National Commission, 2005, p. 7). The government must be able to communicate with people of various educational levels because of the diverse American citizenship. "Writing in state government, in short, ranges from communicating with the general public to communicating with specialists" (The National Commission, 2005, p. 17).

According to Gerson and Gerson (1994) and Singh, Ekanem, Tegegne, Muhammad, and Comer (2004), the workplace is ever changing, and with this change, the classroom must adapt to the needs of the industry. Whether it is teaching the basics of the English language or more in-depth written communication skills, writing education is a must for students to be successful in the workplace (Gerson & Gerson, 1994; Singh, Ekanem, Tegegne, Muhammad, & Comer, 2004). Gerson and Gerson (1994) stated the industry has three expectations of new college graduates, and communication skills were included in the list of three along with being a problem solver and an effective team member. Employers want more than just skills and expertise related to the students' discipline; they want every college graduate to have these three skills. Stevens (2005) suggested, because technical skills are expected characteristics in new college graduates, the tangible skills, such as communication skills, bring new college graduates to the top of the list when employers recruit. Today, it is about more than an education; it is about what one student has that the other one does not. It is a competition (Gerson & Gerson, 1994).

Singh, Ekanem, Tegegne, Muhammad, and Comer (2004) found employers ranked communication and interpersonal skills as more important than the knowledge or experience a student gains in college. The importance of a student possessing written and verbal communication skills outweighed the importance of a student having prior industry experience such as an internship. Stevens (2005) commented that communication is becoming the window to the world, and technology has increased the ability to communicate to a diverse audience more efficiently. According to Stevens (2005), because technology communication has become the communication means of today, the need for new college graduates who can communicate quickly and efficiently continues to rise. “Language is a powerful tool” (Stevens, 2005, p. 2). In addition, Singh, Ekanem, Tegegne, Muhammad, and Comer (2004) stated the preparation of society-ready graduates includes two things: “1) providing education (knowledge, skills) and training necessary for a person to function in a competitive workplace, and 2) preparing students to behave in a professional manner” (p. 8).

Furthermore, Burnett and Tucker (2001) suggested few new college graduates realize the importance of a well-written cover letter when applying for an entry-level position. This is the first, and possibly the most important, impression of the new college graduates’ writing abilities (The National Commission, 2004; Burnett and Tucker, 2001). Thorough writing comes from a thorough thought process; therefore, a clear, concise letter is a representative of a new college graduate’s ability to think (Burnett & Tucker, 2001). “And writing is often the yardstick that we use to evaluate others’ performance and that others use to evaluate ours” (Smith & Bernhardt, 1997, p. xvii).

Teaching Writing in an Agricultural Context

According to Stewart (1987), “each person in the classroom should be a teacher of English” (p. 17). Demonstrating the ability to integrate basics into agricultural education is not easy; however, for students to gain an adequate education, faculty members of all disciplines must incorporate the basics (Stewart, 1987; Flowers & Reaves, 1991). According to Stewart (1987), The National Commission (2003), Smith, Charnley, and McCall (1993), and Flowers and Reaves (1991), students must gain writing instruction outside of the English composition classroom. Writing instructors are experts in their fields, and science instructors are considered experts in their field. However, both could incorporate the basic knowledge of each discipline into their classroom, which would give the student a well-rounded, well-developed education (The National Commission, 2003; Smith, Charnley, & McCall, 1993). Agricultural educators have a duty in the classroom — teaching the basics (Stewart, 1987; Flowers & Reaves, 1991; Stevens, 2005).

Although agricultural instructors should and do encourage correct English, punctuation, and grammar, the primary focus should be on the content of the writing (Flowers & Reaves, 1991), and disciplines must strengthen the basic skills and teach English (Flowers & Reaves, 1991; Schneider & Andre, 2005). Not only does teaching writing in the agriculture classroom help students learn, but also it helps students think. Using writing as a means of learning gives teachers the opportunity to provide problem-solving techniques inside the classroom (Flowers & Reaves, 1991).

The National Commission on Writing in America’s Schools and Colleges established the College Board to improve writing in America. It has a membership of

more than 4,000 schools and colleges, and its primary effort is to enhance the writing abilities of students throughout America (The National Commission, 2003). According to The National Commission (2003), Stevens (2005), Aaron (1996), and Stewart (1987), much controversy surrounds the teaching of writing outside the confinements of the English classroom; however, what many do not realize is writing needs to be reiterated in all disciplines. Writing helps students learn, and learning should occur in every classroom. Therefore, for students to learn to write, teachers must be willing to teach writing in all disciplines and not just in the English classroom. (The National Commission, 2003; Stevens, 2005; Aaron, 1996; Stewart, 1987).

Turning an agricultural economics course into an English writing course is not justifiable; however, incorporating more writing exercises into an economics course is feasible. Supplementing agricultural economics students' education with basic skills is vital to producing a well-rounded, well-educated college graduate (Tobey, 1979). "It is our role to teach agriculture students more than just the technical aspects, if for no better reason than to prepare them for the jobs that they will seek upon graduation" (Orr, 1995, p. 2831).

Many years ago when education was limited to those of an elite lifestyle, "grammar, rhetoric and logic" were the basis for all types of learning (The National Commission, 2003). According to The National Commission (2005), a state government respondent considered grammar and style two necessities for effective writing; however, professors focus more on content (Schneider & Andre, 2005). Students who have grammar and style have the foundation for further learning (The National Commission, 2005). According to The National Commission (2003) and Schneider and Andre (2005),

when students begin to learn, they should begin to write. Writing is more than simply telling the teacher what they know; it is gaining knowledge. Writing is the thread that holds the learning process together (The National Commission, 2003; Schneider & Andre, 2005).

According to Gerson and Gerson (1994), Schneider and Andre (2005), and Smith and Bernhardt (1997), writing is an important facet of the workplace. Gerson and Gerson (2004) and Schneider and Andre (2005) stated writing instructors use writing as a way to teach a variety of skills needed in the workplace. A student who can write also can solve problems, think critically, make decisions, manage time, etc. The art of writing is the gateway to a world of opportunity. “Benefits of retrofitting animal science courses to include these skills can go beyond improved communication abilities to encompass improved retention of technical material, confidence levels, and self-esteem” (Orr, 1995, p. 2832).

Smith, Charnley, and McCall (1993) recognized a *Project Write* was implemented to help faculty members implement more writing into their courses, which helped faculty members gain writing skills and integrate more writing in the classroom. Tobey (1979) and Aaron (1996) suggested, because many faculty members believe it is not their place to teach English, writing skill instruction is not a topic on the top of the agenda. Tobey (1979) stated faculty can use many tactics to encourage and enhance the writing process without becoming an “English professor.” The instruction of writing in an economics classroom goes beyond grammar, mechanics, etc; moreover, it includes more rhetoric, which calls for organization and formation (Tobey, 1979).

According to The National Commission (2003), writing should be incorporated into all disciplines and should be used as a means of learning and developing knowledge. Stevens (2005) suggested, because employers are not satisfied with the writing abilities of new college graduates, it is necessary to re-evaluate the writing education students receive. One of the only ways to eliminate the problem, or close the gap on it, is to provide the students with more writing in-depth courses. According to Orr (1995), Berea College in Kentucky incorporated more writing and speaking into agricultural classes. “It must be recognized that one of the key differences between ‘covering’ material and empowering students to ‘discover’ knowledge on their own lies in the mastery of communication skills: writing, reading, listening, and speaking” (Orr, 1995, p. 2829). The administration at Berea College has had great results with incorporating more writing and speaking into agricultural education because it has helped the students gain necessary skills and helped the faculty become better instructors. “It remains our responsibility to teach our students to use, hone, and improve their writing skills so that they can succeed in their chosen profession” (Berghage & Lownds, 1991, p. 124).

Survey Research

As a researcher in education, Muijs (2004) suggested two types of research — quantitative and qualitative. The quantitative method of research includes research dealing with numbers and statistics. Quantitative research is “about explaining phenomena by collecting quantitative data which are analysed using mathematical-based methods” (Muijs, 2004, p. 11). According to Muijs (2004), although data are not naturally designed to gather in quantitative research method, data can be converted and obtained in quantitative form. “We can do this by designing research instruments aimed

specifically at converting phenomena that don't naturally exist in quantitative form into quantitative data, which we can analyse statistically" (Muijs, 2004, p. 2). Muijs (2004) characterized quantitative research as a way to define and quantify a study based upon the statistical inferences obtained. In addition, non-experimental research design is a quantitative research design that does not control outside variables. "Non-experimental methods include survey research, historical research, observation and analysis of existing data sets" (Muijs, 2004, p. 34).

Muijs (2004) concluded survey research is the most popular non-experimental, quantitative research method. It is a flexible form of research available in multiple forms for multiple reasons, and it is a quick way to obtain a large amount of information. According to Muijs (2004), to increase response rates, a survey should be short and take less than 30 minutes to complete. Other methods that increase response rates include survey feedback, follow-up phone calls, Web surveys and credibility among others. Dillman (2007) and Muijs (2004) characterized the flexibility of survey research as a huge advantage because it can reach a large population, ask a variety of questions, and study multiple variables. Muijs (2004) suggested the use of survey research helps researchers gather large amounts of data at a low cost. Muijs (2004) stated survey research has some disadvantages as well. Because it is non-experimental in design, the researcher cannot control any variables. Furthermore, non-experimental design does not allow for a deep-questioning process, which makes it difficult to gain deep-thought answers to questions. Lastly, respondents do not always give reliable responses regarding behavior-type questions; however, survey research has proven to be an efficient way to gather opinion and perception data (Muijs, 2004).

According to Dillman (2007), Web-based survey design is one of the best ways to collect data since the origination of the telephone survey in the 1970s. By using a Web-based survey design, a researcher could overcome many limitations associated with survey research including cost, international barriers, time, and sample size (Dillman, 2007; Best & Krueger, 2004). Best and Krueger (2004) suggested Web-based surveys also have disadvantages, including lack of Internet access, difference in survey appearance on every computer, and unreliable participant records.

Summary

"A professional education requires a knowledge of the liberal arts to be complete" (Orr, 1995, p. 2831). It is recommended colleges and universities conduct studies to determine employers' perceptions of graduates' writing abilities every three to five years because of the importance employers place on communication (Stevens, 2005). According to Andelt, Barrett, and Bosshamer (1997) and Stevens (2005), as the world moves farther into the 21st century, the need for clear and precise communication will continue to increase, and the use of technology will continue to increase the need for better written communication skills. By identifying the communication needs of employers, educational institutions have made a step toward closing the gap between the writing abilities of new college graduates and the needs of employers. (Andelt, Barrett, & Bosshamer, 1997; Stevens, 2005)

According to Burnett and Tucker (2001), writing in agriculture began as early as the colonial period. Because of the need for dissemination of information, agricultural societies formed libraries, which contained agricultural publications (Boone, Meisenbach, & Tucker, 2000). Additionally, the USDA debuted in 1862 to further aid in the

dissemination of information. This government agency changed agricultural communications forever (Boone, Meisenbach, & Tucker, 2000). According to Burnett and Tucker (2001), new college graduates have become today's means of information dissemination, which means they must convey agriculture effectively through various means of communication.

"Perhaps it's time to sharpen the pencils of our agriculture students and work on one of the essential basic skills valued by the agricultural industry, thinking and communicating thoughts to others" (Flowers & Reaves, 1991, p. 16). In 1862, the Morrill Land Grant College Act was the basis for a liberal education for all students, which helped rural students gain a well-rounded education through the development of a variety of skills and abilities (Burnett & Tucker, 2001; Benjamin, 1962). According to Flowers and Reaves (1991), agricultural students can benefit from writing. Writing helps students gain critical thinking skills, and it increases their ability to profess their knowledge.

In addition, Smith and Bernhardt (1997) addressed the need for written communication skills in the workplace. Writing is the center of business communication, both internally and externally. To increase the awareness of the need for more writing in the workplace, The National Commission produced a series of reports reflecting the need for writing in the workplace and beyond (The National Commission, 2003; The National Commission, 2004; The National Commission, 2005). "In a widely heralded information economy, written information (whether in hard copy or electronic form) is often the commodity that is being traded" (Smith & Bernhardt, 1997).

Furthermore, no matter the discipline area, students must have the basics of education (Stewart, 1987; Flowers & Reaves, 1991). For the students to gain a well-

rounded, well-developed education, the science instructor must cooperate with the English instructor to incorporate the basic curriculum into all classes across the college campus (The National Commission, 2003; Smith, Charnley, & McCall, 1993). It is not sufficient to convert an agricultural-based class into an English classroom, but it is necessary to incorporate the basics of English throughout the already established agricultural curriculum (Tobey, 1979). According to Stevens (2005), incorporating more in-depth writing courses into agricultural curriculum will close the gap on writing deficiencies.

Mujis (2004) concluded quantitative research serves as a means of gathering quantitative data. To increase response rates, Mujis (2004) suggested using Web surveys. According to Dillman (2007) and Mujis (2004), survey research is an excellent way to reach a large population at a lower cost. Dillman (2007) characterized a Web-based survey as one of the best ways to collect quantitative data since the inception of phone surveys.

CHAPTER III

METHODOLOGY

Chapter I addressed the need for writing in the workplace and the value employers put on writing. It included the background and need for written communication skills of graduates in the OSU CASNR. The primary purpose of this study was to determine the 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters' perceptions of the writing abilities of the graduates of OSU CASNR. To achieve the purpose of the study, specific objectives were to

1. Describe the characteristics of the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters and recruiting organizations;
2. Determine the importance of writing when recruiting new employees;
3. Determine the frequency and types of writing required of a recent college graduate; and
4. Determine employers' perceptions of the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources.

Chapter I included definitions of terms, the scope of the study, the assumptions of the study, the limitations of the study, the significance of the study, and a summary.

Chapter II provided a conceptual framework for the basis of this study. It also included the history of writing in agriculture, the importance of writing in agriculture and

the workplace, teaching writing in an agricultural context, survey research, and a summary.

This chapter addresses the Institutional Review Board approval, population, instrumentation, research design, validity, reliability, pilot study, data collection, data analysis, and summary.

Institutional Review Board

As required by OSU regulation, the research study was presented to the Office of University Research and the Institutional Review Board to ensure the rights and protection of human subjects as part of social science research. The study received approval for execution, and the IRB Application No. is AG0649 (Appendix A).

Population

The population for this study included 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters. Records from the 2000-2005 career fairs were obtained from OSU CASNR Career Services. Multiples were removed from the records; therefore, the latest recruiter representing an organization was used for the study. However, spring 2000 and spring 2001 career fairs were not held, and the records could not be obtained for the spring 2002 career fair. Because of the scope of the study and the pattern of the recruiters, OSU CASNR Career Services said most recruiters from the spring 2002 career fair were included in the population (Amy Gazaway, personal communication, June 20, 2006). It was necessary to survey the career fair recruiters because of their close interaction and familiarity with the requirements of new college graduates. Although 142 (N=142) professionals have recruited at the Agricultural, Food, Environmental, and Natural Sciences Career Fair from January 1, 2000, through

December 31, 2005, the researchers could obtain only 112 sufficient addresses; therefore, only 112 (N=112) recruiters were used in the study.

Instrumentation

The study obtained approval from The National Commission on Writing for America's Families, Schools, and Colleges to use the survey design from The Business Roundtable and National Writing Commission Human Resource Survey March 2004 report (The National Commission, 2004) (Appendix B). "The Roundtable includes some of the most prominent corporations in the United States and the world" (The National Commission, 2004, p. 5). The Business Roundtable consisted of chief executives from the leading corporations within the United States. They represented a variety of different industries from manufacturing to finance to agriculture. Each member of the Business Roundtable was asked to complete the survey. This report addressed the need for writing in the workplace and the various aspects of writing in the workplace; therefore, the researcher chose to use this survey to perform a similar study for OSU CASNR. The researcher adapted the survey to fit the study by including questions directly related to OSU CASNR. For example, "How satisfied are you with the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR)?"

In 2005, The National Commission on Writing for America's Families, Schools, and Colleges performed another study on the government sector. The results of this study were similar to the study of 2004; however, the study determined writing was more important in the government sector than in the private sector. The second study of the Commission used an e-mail-based survey, which reported a 98% response rate (The

National Commission, 2005). Therefore, the researcher decided to use a Web-based survey to improve the response rate of this study. The researcher compared the writing abilities of the graduates of OSU CASNR to the writing abilities of new college graduates of the Business Roundtable included in The National Commission on Writing for America's Families, Schools, and Colleges 2004 report.

The Web-based survey contained three parts — (a) organizational demographics, (b) importance of writing skills in the recruitment process and workplace, and (c) recruiter demographics (Appendix C). Part One of the survey contained five questions used to gain insight into the background of the organization and its hiring practices. The respondents were asked the nature of the organization and the types of positions for which the organization recruits. Also, the survey asked the respondent to report the number of employees as of January 1, 2006; the number of yearly graduates hired from January 1, 2000, to December 31, 2005; and the number graduates of OSU CASNR hired from January 1, 2000, to December 31, 2005.

Part Two of the survey contained 14 questions related to the importance of new college graduates' workplace writing skills. A Likert-type scale was used. The study sought to determine if employers take writing skills into consideration when hiring, and if so, how do they assess writing skills. To determine the importance of writing in the workplace, the study asked the respondents to rate how frequently different types of writing were required in the workplace. Also, the respondents were asked to rank the importance of effective written communication characteristics. The respondents also were asked how many OSU CASNR graduates had the writing skills needed in the workplace and how satisfied they were with the writing abilities of the graduates.

Part Three of the survey contained four questions related to the demographics of the respondents. The study asked the respondents if they graduated from OSU, and if so, their major and year of graduation. Also, it asked the respondents about their individual writing abilities when entering the workforce.

Research Design

According to Muijs (2004), a researcher sets out to gather information and answer questions. To do that, two types of research could be used — quantitative or qualitative. Muijs (2004) defined quantitative research as "explaining phenomena by collecting quantitative data which are analyzed using mathematical based methods" (p. 11). Muijs (2004) discussed four reasons to conduct quantitative research: (1) when the study desires a quantitative answer; (2) when the study describes a numerical change; (3) when the study needs to determine the state of something; and (4) when the study needs to test a hypothesis.

Because of the lack of the ability to control the research study, this descriptive, survey method study was a non-experimental, quantitative research design. "Non-experimental methods include survey research, historical research, observation and analysis of existing data sets" (Muijs, 2004, p. 34). The non-experimental survey method helped the researcher gain a large amount of information from a diverse population, which is an advantage of the quantitative research design. However, the non-experimental design does not allow the researcher to have a controlled variable or to develop a deep understanding of the information. Yet, the researcher only sought to obtain employers' perceptions; therefore, the quantitative, non-experimental research design was the most appropriate method of research to conduct this study (Muijs, 2004).

The researcher used an Internet survey design to increase accessibility of the population. Because the population has Internet access, the researcher chose a Web-based survey. According to Best and Krueger (2004), the Internet is a great way to send and gather information; however, a draw back to the Internet research is the inability to reach all people because of lack of e-mail access.

Validity and Reliability

According to Muijs (2004), for a study to be valid, it must be reviewed by a panel of experts. “Validity asks the question: are we measuring what we want to measure?” (Muijs, 2004, p. 65). It is important to establish face validity — having respondents review the instrument and check for validity before performing the study. However, Muijs recognized that “lay” users lack a theoretical concept of validity. According to Muijs (2004), although a sample of the population may not be familiar with the theory behind validity, it is still important to have a panel of experts review the instrumentation before implementing the study. “In that case it can be useful to have a panel of experts in the field judge your instrument as well” (Muijs, 2004, p. 66). According to Dillman (2007), the first and second stage of pre-testing consists of having knowledgeable people in the discipline evaluate and review the instrumentation and then interviewing the reviewers to determine their understanding and interpretation of the questions. “There are kinds of questions only knowledgeable people can answer” (Dillman, 2007, p. 141). It is important to form a panel of experts from a variety of experiences; this group of individuals provides valuable advice to the researcher because of its similarity to the respondents (Dillman, 2007).

To check the validity of the instrument, the researcher developed a panel of experts consisting of eight members — two faculty members in the Department of Agricultural Education, Communications and Leadership, one faculty member from the Department of Plant and Soil Sciences, one faculty member from the Department of Agricultural Economics, three staff members from CASNR Academic Programs, and one staff member from OSU Career Services office. The study provided the panel of experts with the survey via surveymonkey.com. The panel reviewed the instrument and gave the researcher its suggestions for improvements; however, the researcher did not make all suggested revisions, so the study could remain consistent with the national study because the data from this study was compared to national data. After making the first revisions to the survey, the researcher asked the panel for a second review. The panel of experts provided a few additional recommendations and approved the instrument as designed.

According Muijs (2004), to prove reliability a pilot study must be conducted before performing the actual study. Reliability is the "extent to which test scores are free of measurement error" (Muijs, 2004, p. 71). Muijs stated a study cannot contain any threats to internal consistency to be reliable. To determine internal consistency, a coefficient alpha was used. The coefficient alpha determines "how strongly each individual item is correlated with the scale score" (Muijs, 2004, p. 74). To perform the pilot study, the researcher used employers from the OSU CASNR database who did not recruit at the Agricultural, Food, Environmental and Natural Sciences Career Fair from January 1, 2000, to December 31, 2005. The researcher used *Statistical Package for the Social Sciences (SPSS®) version 15* to determine the Cronbach's Alpha — a reliability coefficient — for Part Two of the survey. The Cronbach's Alpha was used to establish

the internal consistency of the study, which was 0.867 for this study. According to Muijs (2004), a coefficient alpha of at least 0.7 is considered reliable. The researcher did a visual comparison to check the reliability of the non-scaled items in Part One and Part Three of the survey.

Pilot Study

According to Dillman (2007), running a pilot study is the third step to pre-testing a study. Because of the investment in a study, it is important to imitate a study on a smaller scale before beginning the actual study. In a pilot study, the chosen respondents receive everything just as the respondents of the formal study would. The pilot study helps the researcher to estimate the response rates, etc. of the actual study.

To perform the pilot study, the researcher obtained access to an employer database from OSU CASNR Career Services office. From that database, the researcher extracted the Agricultural, Food, Environmental and Natural Sciences Career Fair employers who did not recruit from January 1, 2000, to December 31, 2005. The researcher randomly selected a sample of the population of the non-recruiters (N=50). The pilot study participants were not members of the research study. To get the number of respondents for Cronbach's Alpha, the researcher sent two different pilot studies to 25 (N=25) respondents each time. After the pilot study was completed, no adjustments were made to the instrument.

The pilot study participants were sent four e-mails (Appendix D). First, they were sent a pre-notification e-mail message to inform them of the purpose of the research. Within one week, the participants were e-mailed a link to the survey with in-depth information of the research. The researcher followed up with the non-respondents one

week later. At the end of week three, the researcher made a fourth contact with non-respondents.

Data Collection

A November 15, 2006, notification e-mail was sent to Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters from January 1, 2000, through December 31, 2005. The notification e-mail explained in detail the purpose of the study, guaranteed confidentiality, and asked for participation in the research study. On November 22, 2006, the researcher e-mailed the Web-based survey to the career fair recruiters (N=112). The e-mail that accompanied the survey link supplied the participant with the purpose of the research study; prepared the employer for the types of questions in the survey, the information needed to complete the survey, and the amount of time needed to complete the survey; and thanked the participant for contributing to the research study. Also, by choosing the survey link, the respondent gave consent to be part of this study, which was defined in the e-mail, as well.

On November 29, 2006, one week after the second contact, a third e-mail was sent to the non-respondents. The third contact contained a follow up e-mail and supplied the participant with another link to the survey in case the first e-mail with the link was deleted. The fourth and final contact, December 7, 2006, reminded the non-respondents they had one more chance to participate in the study. The e-mail to non-respondents included the purpose of the study and the importance of their participation in the study, and once again, the link to the online survey. Response rates were 34 (n=34), 30.36%. According to Dillman (2007), there is no evidence to prove the best time to conduct a

survey; however, the researchers chose to avoid the weekend e-mail and send the survey link on Wednesday starting on November 15, 2006, and ending on December 7, 2006.

According to Miller and Smith (1983), ". . . late respondents are often similar to non-respondents." Therefore, the researchers did a visual comparison of early to late respondents to analyze the non-response error. The researcher found no difference between the responses of early respondents and late respondents (Miller & Smith, 1983). According to Linder, Murphy, and Briers (2001), comparing early to late respondents is a "defensible and generally acceptable procedure for handling non-response error" (p. 51). "With late respondents assumed typical of non-respondents, if no differences are found, then respondents are generalized to the sample" (Miller & Smith, 1983, p. 48).

Data Analysis

Statistical Package for the Social Sciences (SPSS®) version 15 was used to analyze the data for this study. The researcher calculated descriptive statistics associated with this study. Chapter IV contains the results to the study.

Summary

This chapter described the quantitative method used to conduct this study. The researcher used The National Commission on Writing for America's Families, Schools, and Colleges' Business Roundtable and National Writing Commission Human Resource Survey March 2004 (The National Commission, 2004) as the basis for the development of this study's Web-based survey instrument. A panel of experts and pilot study tested the validity and reliability of the instrument. The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters from January 1, 2000, to December 31, 2005, served as the population (N=112) for this study because of their interaction and

familiarity with the graduates of the OSU CASNR. The researcher made four contacts with the participants — the notification e-mail, the first survey link e-mail, the first non-respondent follow-up e-mail, and the second non-respondent follow-up e-mail. The four contacts were scheduled every week on Wednesday from November 15, 2006, to December 7, 2006.

CHAPTER IV

FINDINGS

Chapter I addressed the need for writing in the workplace and the value employers put on writing. It included the background and need for written communication skills of graduates in OSU CASNR. The primary purpose of this study was to determine the 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters' perceptions of the writing abilities of the graduates of OSU CASNR. To achieve the purpose of the study, specific objectives were to

1. Describe the characteristics of the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters and recruiting organizations;
2. Determine the importance of writing when recruiting new employees;
3. Determine the frequency and types of writing required of a recent college graduate; and
4. Determine employers' perceptions of the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources.

Chapter I included definitions of terms, the scope of the study, the assumptions of the study, the limitations of the study, the significance of the study, and a summary.

Chapter II provided a conceptual framework for the basis of this study. It also included the history of writing in agriculture, the importance of writing in agriculture and

the workplace, teaching writing in an agricultural context, survey research, and a summary.

Chapter III addressed the Institutional Review Board approval, population, instrumentation, research design, validity, reliability, pilot study, data collection, data analysis, and summary.

Chapter IV summarizes the data collected from the survey given to the population.

Findings Related to Objective One

Objective 1 was to describe the characteristics of the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters and recruiting organizations from January 1, 2000, to December 31, 2005. One-hundred-forty-two recruiters met the established criteria; however, only 112 (N=112) had sufficient addresses to complete the study. The response rates for the study were 30.36% (n=34).

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to define the *nature of their organization*. Thirty-four (30.36%) usable responses were obtained. Six (17.60%) responded “government,” five (14.70%) responded “education,” 19 (55.90%) responded “profit,” and four (11.80%) responded “non-profit.” The number of respondents and nature of organization are presented in Table 1.

Table 1

Recruiter and recruiting organization demographics

	No. of Respondents	%
Nature of recruiting organizations		
Profit	19	55.90
Government	6	17.60
Education	5	14.70
Non-Profit	4	11.80
Types of positions for which organizations hire		
Management and Business	15	45.50
Agricultural Forestry and Production	7	21.20
Education, Communication, and Government	7	21.20
Scientific and Engineering	4	12.10
Graduates of OSU		
Yes	5	18.50
No	22	81.50

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to *distinguish the types of positions their organizations hire*. Thirty-three (29.46%) usable responses were obtained. Fifteen (45.50%) responded "management and business," seven (21.20%) responded "agricultural forestry and production," four (12.10%) responded "scientific and engineering," and seven (21.20%) responded "education, communication, and government." The number of respondents and types of positions for which organizations hire are presented in Table 1.

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked *if they were Oklahoma State University graduates.* Twenty-seven (24.11%) usable responses were obtained. Five (18.50%) responded "yes," and 22 (81.50%) responded "no." If the recruiters were OSU graduates, they were asked their major, year of graduation, and if their writing abilities were adequate when they entered

the workforce (Appendix E). The number of respondents and number of OSU graduates are presented in Table 1.

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to report the *number of employees they employed on January 1, 2006 — inside and outside the United States*. For the *number of employees inside the United States*, 26 (23.21%) usable responses were obtained. The low extreme was four, and the high extreme was 8,000.00. The mean was 1,237.04, the mode was 3,000.00, and the median was 525.00. For the *number of employees outside the United States*, 11 (9.82%) usable responses were obtained. The low extreme was zero, and the high extreme was 500.00. The mean was 48.36, the mode was zero, and the median was zero. The extremes, mean, mode, and median are presented in Table 2.

Table 2

Number of Employees

	Low Extreme	High Extreme	Mean	Mode	Median
Number of employees employed on January 1, 2006					
Inside the United States	4.00	0.00	1,237.04	3,000.00	525.00
Outside the United States	0.00	500.00	48.36	0.00	0.00
Average number of employees hired yearly from January 1, 2000, to December 31, 2005					
Inside the United States	4.00	350	81.72	35.00	35.00
Outside the United States	0.00	5.00	0.70	0.00	0.00
Number of OSU CASNR grads hired yearly from January 1, 2000, to December 31, 2005					
Inside the United States	0.00	10.00	2.07	0.00	1.00
Outside the United States	0.00	0.00	0.00	0.00	0.00

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to report the *average number of employees hired yearly from January 1, 2000, to December 31, 2005 — inside and outside the United States*. For the *average number of employees hired inside the United States*, 25 (22.32%) usable responses were obtained. The low extreme was four, and the high extreme was 350.00. The mean was 81.72, the mode was 35.00, and the median was 35.00. For the *average number of employees hired outside the United States*, 10 (8.93%) usable responses were obtained. The low extreme was zero, and the high extreme was five. The mean was 0.70, the mode was zero, and the median was zero. The extremes, mean, mode, and median are presented in Table 2.

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to report the *number of graduates of the OSUCASNR hired yearly from January 1, 2000, to December 31, 2005 — inside and outside the United States*. For the *number of graduates of OSU CASNR hired inside the United States*, 27 (24.11%) usable responses were obtained. The low extreme was zero, and the high extreme was 10. The mean was 2.07, the mode was zero, and the median was one. For the *number of graduates of OSU CASNR hired outside the United States*, 10 (8.93%) usable responses were obtained. The low extreme was zero, and the high extreme was zero. The mean was zero, the mode was zero, and the median was zero. The extremes, mean, mode, and median are presented in Table 2.

Findings Related to Objective Two

Objective 2 was to determine the importance of writing when recruiting new employees based upon the perceptions of the career fair recruiters from the Agricultural,

Food, Environmental, and Natural Sciences Career Fair from January 1, 2000, to December 31, 2005.

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to rank the *consideration of writing when hiring new employees* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, “almost never,” to four, “almost always.” For *professional staff,* 28 (25.%) usable responses were obtained. Four (14.30%) responded “almost never,” three (10.70%) responded “occasionally,” seven (25%) responded “frequently,” and 14 (50%) responded “almost always.” The mean rating for *professional staff* was 3.11 with a standard deviation of 1.10. For *hourly staff,* 26 (23.21%) usable responses were obtained. Six (23.10%) responded “almost never,” five (19.20%) responded “occasionally,” 10 (38.50%) responded “frequently,” and five (19.20%) responded “almost always.” The mean rating for *hourly staff* was 2.54 with a standard deviation of 1.07. The number of respondents, mean, and standard deviation are presented in Table 3

Table 3

Employers' perceptions of the importance of writing in the workplace

	No. of Respondents	M	SD
Professional Staff			
Consideration of writing skills when hiring new employees	28	3.11	1.10
Samples of written materials or presentations required of a job applicant	29	2.07	1.10
Impact of a poorly composed job applicant's letter or other written material when hiring	27	3.48	0.70
Importance of effective writing skills when making promotion decisions	25	2.96	0.79
Opportunities to improve writing skills when an employee possesses poor writing skills	26	2.35	1.06
Hourly Staff			
Consideration of writing skills when hiring new employees	26	2.54	1.07
Samples of written materials or presentations required of a job applicant	26	1.54	0.86
Impact of a poorly composed job applicant's letter or other written material when hiring	24	2.88	0.85
Importance of effective writing skills when making promotion decisions	23	2.61	0.94
Opportunities to improve writing skills when an employee possesses poor writing skills	24	2.00	0.93

Note. Scale: 1 = Almost Never, 2 = Occasionally, 3 = Frequently, 4 = Almost Always

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked *how they assess a job applicant's writing ability*. Employers were asked to select all responses that apply. Twenty-eight (25%) usable responses were obtained. Thirteen (46.40%) responded "writing sample provided by job applicant," three

(10.70%) responded “writing test taken during the job interview,” 11 (39.30%) responded “review of coursework on résumé,” 23 (82.10%) responded “impression based on letter/written application,” two (7.10%) responded “open Web forum (e.g., Facebook, MySpace, blogs, etc.),” and 18 (64.30%) responded “personal communication with references.” The number of respondents and the types of writing used to *assess a job applicant’s writing abilities* are presented in Table 4.

Table 4

Assessment of a job applicant’s writing ability

	No. of Respondents	%
Impression based on letter/written application	23	82.10
Personal communication with references	18	64.30
Writing sample provided by job applicant	13	39.30
Review of coursework on résumé	11	46.40
Writing test taken during the job interview	2	10.70
Open Web forum (e.g., Facebook, MySpace, blogs, etc.)	2	7.10

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *how often samples of written materials or presentations are required of a job applicant* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, “almost never,” to four, “almost always.” For *professional staff,* 29 (25.89%) usable responses were obtained. Twelve (41.40%) responded “almost never,” seven (20.60%) responded “occasionally,” six (17.60%) responded “frequently,” and four (11.80%) responded “almost always.” The mean rating for *professional staff* was 2.07 with a standard deviation of 1.10. For *hourly staff,* 26 (23.21%) usable responses were obtained. Seventeen (65.40%) responded

"almost never," five (19.20%) responded "occasionally," three (11.50%) responded "frequently," and one (3.80%) responded "almost always." The mean rating for *hourly staff* was 1.54 with a standard deviation of 0.86. The number of respondents, mean, and standard deviation are presented in Table 3.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *impact of a poorly composed job applicant's letter or other written material when hiring* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, "almost never," to four, "almost always." For *professional staff*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded "almost never," three (11.10%) responded "occasionally," eight (29.60%) responded "frequently," and 16 (59.30%) responded "almost always." The mean rating for *professional staff* was 3.48 with a standard deviation of 0.70. For *hourly staff*, 24 (21.43%) usable responses were obtained. One (4.20%) responded "almost never," seven (29.20%) responded "occasionally," 10 (41.70%) responded "frequently," and six (25%) responded "almost always." The mean rating for *hourly staff* was 2.88 with a standard deviation of 0.85. The number of respondents, mean, and standard deviation are presented in Table 3.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to determine *how much good writing skills are worth when hiring a new college graduate* on a Likert-type scale with a range of one, "$0 - $1,000," to six, "more than $10,000." Twenty-three (20.54%) usable responses were obtained. Six (26.10%) responded "$0 - $1,000," three (13%) responded "$1,001 - $2,500," four (17.40%) responded "$2,501 - $5,000," four (17.40%) responded "$5,001 - $7,500," two

(8.70%) responded “$7,501 - $10,000,” and four (17.40%) responded “more than $10,000.” The mean rating was 3.22 with a standard deviation of 1.83. The number of respondents, mean, and standard deviation are presented in Table 5.

Table 5

The value of good writing skills when hiring new employees

	No. of Respondents	M	S.D.
Value of good writing skills	23	3.22	1.83

Note. Scale: 1 = $0 - $1,000, 2 = $1,001 - $2,500, 3 = $2,501 - $5,000, 4 = $5,001 - $7,500, 5 = $7,501 - $10,000, 6 = more than $10,000

Findings Related to Objective Three

Objective 3 was to determine the frequency and types of writing required of a recent college graduate based upon the perceptions of the career fair recruiters from the Agricultural, Food, Environmental and Natural Sciences Career Fair from January 1, 2000, to December 31, 2005.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *number employees who have some responsibility for writing* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, “a few,” to four, “almost all.” For *professional staff*, 28 (25%) usable responses were obtained. Two (7.10%) responded “a few,” one (3.60%) responded “about 1/3rd,” six (21.40%) responded “about 2/3rds,” and 19 (67.90%) responded “almost all.” The mean rating for *professional staff* was 3.50 with a standard deviation of 0.88. For *hourly staff*, 25 (22.32%) usable responses were obtained. Eight (32%)

responded “a few,” one (4%) responded “about 1/3rd,” nine (36%) responded “about 2/3rds,” and seven (28%) responded “almost all.” The mean rating for *hourly staff* was 2.60 with a standard deviation of 1.23. The number of respondents, mean, and standard deviation are presented in Table 6.

Table 6

Employers’ perceptions of written communication practices in the workplace

	No. of Respondents	M	SD
Professional Staff			
Employees who have some responsibility for writing	28	3.50	0.88
Employees who have effective communication characteristics	27	3.37	0.63
Hourly Staff			
Employees who have some responsibility for writing	25	2.60	1.23
Employees who have effective communication characteristics	25	2.24	0.88
Writing abilities of OSU CASNR graduates	15	2.87	1.30

Note. Scale: 1 = A Few, 2 = About 1/3rd, 3 = About 2/3rds, 4 = Almost All

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to identify the *types of writing and frequency performed on the job* on a Likert-type scale with a range of one, “almost never,” to four, “almost always.” The types of writing include *e-mail correspondence, other memoranda and correspondence, oral presentations with slides/visuals (e.g., PowerPoint), oral presentations without visuals, formal reports, technical reports, and Web text.* For *e-mail correspondence*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “almost never,” zero (0.00%) responded “occasionally,” six (22.20%) responded “frequently,” and 21

(77.80%) responded “almost always.” The mean rating for *e-mail correspondence* was 3.78 with a standard deviation of 0.42. For *other memoranda and correspondence,* 27 (24.11%) usable responses were obtained. Two (7.40%) responded “almost never,” five (18.50%) responded “occasionally,” 14 (51.90%) responded “frequently,” and six (22.20%) responded “almost always.” The mean rating for *other memoranda and correspondence* was 2.89 with a standard deviation of 0.85. For *oral presentations with slides/visuals (e.g., PowerPoint),* 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “almost never,” four (14.80%) responded “occasionally,” 14 (51.90%) responded “frequently,” and nine (33.30%) responded “almost always.” The mean rating for *oral presentations with slides/visuals (e.g., PowerPoint)* was 3.19 with a standard deviation of 0.68. For *oral presentations without visuals,* 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “almost never,” eight (29.60%) responded “occasionally,” 13 (48.10%) responded “frequently,” and six (22.20%) responded “almost always.” The mean rating for *oral presentations without visuals* was 2.93 with a standard deviation of 0.73. For *formal reports,* 27 (24.11%) usable responses were obtained. Three (11.10%) responded “almost never,” six (22.20%) responded “occasionally,” 11 (40.70%) responded “frequently,” and seven (25.90%) responded “almost always.” The mean rating for *formal reports* was 2.81 with a standard deviation of 0.96. For *technical reports,* 27 (24.11%) usable responses were obtained. Two (7.40%) responded “almost never,” eight (29.60%) responded “occasionally,” 12 (44.40%) responded “frequently,” and five (18.50%) responded “almost always.” The mean rating for *technical reports* was 2.74 with a standard deviation of 0.86. For *Web text,* 26 (23.21%) usable responses were obtained. Five (19.20%) responded “almost never,” nine

(34.60%) responded “occasionally,” eight (30.80%) responded “frequently,” and four (15.40%) responded “almost always.” The mean rating for other *Web text* was 2.42 with a standard deviation of 0.99. The number of respondents, mean, and standard deviation are presented in Table 7.

Table 7

Types of writing and frequency performed on the job

	No. of Respondents	M	S.D.
E-mail correspondence	27	3.78	0.42
Other memoranda and correspondence	27	2.89	0.85
Oral presentations with slides/visuals (e.g., PowerPoint)	27	3.19	0.68
Oral presentations without visuals	27	2.93	0.73
Formal reports	27	2.81	0.96
Technical reports	27	2.74	0.86
Web text	26	2.42	0.99

Note. Scale: 1 = Almost Never, 2 = Occasionally, 3 = Frequently, 4 = Almost Always

The Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters were asked to identify the *characteristics of effective communication* on a Likert-type scale with a range of one, “not at all important,” to four, “extremely important.” The types of writing include *accuracy, clarity, conciseness, scientific precision, visual appeal, and spelling, punctuation and grammar*. For *accuracy*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “not at all important,” zero (0.00%) responded “not very important,” three (11.10%) responded “important,” and 24 (88.90%) responded “extremely important.” The mean rating for *accuracy* was 3.89 with a standard deviation of 0.32. For *clarity*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “not at all important,” zero (0.00%) responded “not

very important," five (14.70%) responded "important," and 22 (81.50%) responded "extremely important." The mean rating for *clarity* was 3.81 with a standard deviation of 0.40. For *conciseness*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded "not at all important," zero (0.00%) responded "not very important," seven (25.90%) responded "important," and 20 (74.10%) responded "extremely important." The mean rating for *conciseness* was 3.74 with a standard deviation of 0.45. For *scientific precision*, 25 (22.32%) usable responses were obtained. Zero (0.00%) responded "not at all important," four (16%) responded "not very important," 10 (40%) responded "important," and 11 (44%) responded "extremely important." The mean rating for *scientific precision* was 3.28 with a standard deviation of 0.74. For *visual appeal*, 26 (23.21%) usable responses were obtained. Zero (0.00%) responded "not at all important," two (7.70%) responded "not very important," 12 (46.20%) responded "important," and 12 (46.20%) responded "extremely important." The mean rating for *visual appeal* was 3.38 with a standard deviation of 0.64. For *spelling, punctuation, and grammar*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded "not at all important," one (3.70%) responded "not very important," seven (25.90%) responded "important," and 19 (70.40%) responded "extremely important." The mean rating for *spelling, punctuation, and grammar* was 3.67 with a standard deviation of 0.56. The number of respondents, mean, and standard deviation are presented in Table 8.

Table 8

Characteristics of effective communication

	No. of Respondents	M	S.D.
Accuracy	27	3.89	0.32
Clarity	27	3.81	0.40
Conciseness	27	3.74	0.45
Scientific precision	25	3.28	0.74
Visual appeal	26	3.38	0.64
Spelling, punctuation, and grammar	27	3.67	0.64

Note. Scale: 1 = Not At All Important, 2 = Not Very Important, 3 = Important, 4 = Extremely Important

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *how many of their employees have effective communication characteristics* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, “a few,” to four, “almost all.” For *professional staff*, 27 (24.11%) usable responses were obtained. Zero (0.00%) responded “a few,” two (7.40%) responded “about 1/3rd,” 13 (48.10%) responded “about 2/3rds,” and 12 (44.40%) responded “almost all.” The mean rating for *professional staff* was 3.37 with a standard deviation of 0.63. For *hourly staff*, 25 (22.32%) usable responses were obtained. Six (24%) responded “a few,” eight (32%) responded “about 1/3rd,” 10 (40%) responded “about 2/3rds,” and one (4%) responded “almost all.” The mean rating for *hourly staff* was 2.24 with a standard deviation of 0.88. The number of respondents, mean, and standard deviation are presented in Table 6.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *importance of effective writing skills when making promotion decisions* for two types of staff — *professional and hourly* — on a Likert-type

scale with a range of one, “almost never,” to four, “almost always.” For *professional staff*, 25 (22.32%) usable responses were obtained. One (4%) responded “almost never,” five (20%) responded “occasionally,” 13 (52%) responded “frequently,” and six (24%) responded “almost always.” The mean rating for *professional staff* was 2.96 with a standard deviation of 0.79. For *hourly staff*, 23 (20.54%) usable responses were obtained. Three (13%) responded “almost never,” seven (30.40%) responded “occasionally,” nine (39.10%) responded “frequently,” and four (17.40%) responded “almost always.” The mean rating for *hourly staff* was 2.61 with a standard deviation of 0.94. The number of respondents, mean, and standard deviation are presented in Table 3.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *opportunities to improve writing skills when an employee possesses poor writing skills* for two types of staff — *professional and hourly* — on a Likert-type scale with a range of one, “almost never,” to four, “almost always.” For *professional staff*, 26 (23.21%) usable responses were obtained. Six (23.10%) responded “almost never,” 10 (38.50%) responded “occasionally,” five (19.20%) responded “frequently,” and five (19.20%) responded “almost always.” The mean rating for *professional staff* was 2.35 with a standard deviation of 1.06. For *hourly staff*, 24 (21.43%) usable responses were obtained. Nine (37.50%) responded “almost never,” seven (29.20%) responded “occasionally,” seven (29.20%) responded “frequently,” and one (4.20%) responded “almost always.” The mean rating for *hourly staff* was 2.00 with a standard deviation of 0.93. The number of respondents, mean, and standard deviation are presented in Table 3.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to determine the *annual cost of writing training* on a Likert-type scale with a range of one, "$0 - $500," to four, "more than $1,500." Seventeen (15.18%) usable responses were obtained. Eight (47.10%) responded "$0 - $500," three (17.60%) responded "$501 - $1,000," four (23.50%) responded "$1,001 - $1,500," and two (11.80%) responded "more than $1,500." The mean rating was 2.00 with a standard deviation of 1.12. The number of respondents, mean, and standard deviation are presented in Table 9.

Table 9

Annual cost of writing training

	No. of Respondents	M	S.D.
Cost of writing training	17	2.00	1.12

Note. Scale: 1 = $0 - $500, 2 = $501 - $1,000, 3 = $1,001 - $1,500, 4 = more than $1,500

Findings Related to Objective Four

Objective 4 was to determine employers' perceptions of the writing abilities of the graduates of the OSUCASNR based upon the perceptions of the career fair recruiters from the Agricultural, Food, Environmental and Natural Sciences Career Fair from January 1, 2000, to December 31, 2005.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report the *writing abilities of the graduates of OSU CASNR* on a Likert-type scale with a range of one, "a few," to four, "almost all." Fifteen (13.39%) usable responses were obtained. Four (26.60%) responded "a few," one (6.60%)

responded “about 1/3rd,” three (20%) responded “about 2/3rds,” and seven (46.60%) responded “almost all.” The mean rating was 2.87 with a standard deviation of 1.30. The number of respondents, mean, and standard deviation are presented in Table 6.

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to report their *satisfactions of the writing abilities of the graduates of OSU CASNR* for two types — *hired and interviewed* — on a Likert-type scale with a range of one, “not at all satisfies,” to four, “extremely satisfied.” For *hired graduates*, 15 (13.39%) usable responses were obtained. Zero (0.00%) responded “not at all satisfied,” two (13.30%) responded “not very satisfied,” eight (53.30%) responded “satisfied,” and five (33.30%) responded “extremely satisfied.” The mean rating for *hired graduates* was 3.20 with a standard deviation of 0.68. For *interviewed graduates*, 17 (15.18%) usable responses were obtained. One (5.90%) responded “not at all satisfied,” two (11.80%) responded “not very satisfied,” eleven (64.70%) responded “satisfied,” and three (17.60%) responded “extremely satisfied.” The mean rating for *interviewed graduates* was 2.94 with a standard deviation of 0.75. The number of respondents, mean, and standard deviation are presented in Table 10.

Table 10

Satisfactions of the writing abilities of the graduates of OSU CASNR

	No. of Respondents	M	S.D.
Hired graduates	15	3.20	0.68
Interviewed graduates	17	2.94	0.74

Note. Scale: 1 = Not At All Satisfied, 2 = Not Very Satisfied, 3 = Satisfied, 4 = Extremely Satisfied

The Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters were asked to provide *additional information about CASNR graduates* (Appendix F). One Agriculture, Food Environmental, and Natural Sciences Career Fair recruiter commented "I have been very pleased with the overall performance of the OSU graduates that I have hired." However, another recruiter reported CASNR students are weak in their written communication skills: "I have not been pleased with the writing skills of our OSU graduates because I continually find myself spending time editing their work."

CHAPTER V

CONCLUSIONS

Summary

In the 21st Century, the need for communication skills in the workplace has increased (NACE Research, 2006). Because of this increased need for communication in the workplace, Stevens (2005) suggested universities and colleges evaluate the writing abilities of college graduates every three to five years. In a 2004 study by The National Commission on Writing for America's Families, Schools, and Colleges, human resources directors suggested writing as the ticket to a successful career. This national study influenced the need for this type of study at Oklahoma State University in the College of Agricultural Sciences and Natural Resources.

The primary purpose of this study was to determine the 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters' perceptions of the writing abilities of the graduates of OSU CASNR. To achieve the purpose of the study, specific objectives were to

1. Describe the characteristics of the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters and recruiting organizations;
2. Determine the importance of writing when recruiting new employees;
3. Determine the frequency and types of writing required of a recent college graduate; and

4. Determine employers' perceptions of the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources.

Summary of the Review of Literature

The National Commission (2004) and Stevens (2005) both reported on the need for writing in the workplace. The 2004 National Commission report addressed the importance of writing in the workplace; whereas, Stevens (2005) evaluated the employers' satisfactions with the writing abilities of new college graduates.

According to Burnett and Tucker (2001) and Boone, Meisenbach, and Tucker (2000), writing in agriculture began many years ago. Land grant institutions were founded on the principles of educating students with a liberal education, one which incorporated not only the technical skills needed for success but also the basic skills (Benjamin, 1962; McDowell, 2002; McDowell, 2003). However, writing in agriculture began long before the debut of the land grant institution (Burnett & Tucker, 2001). It began in 1588 as a means of information dissemination from one farmer to another, and it has continued today through the USDA, land grant institutions, and a variety of other organizations (Burnett & Tucker, 2001; Boone, Meisenbach, & Tucker, 2000).

Flowers and Reaves (1991), Scanlon and Baxter (1993), and Maciorowski and Ricke (2000) presented writing as a means of learning in an agriculturally based course. Scanlon and Baxter (1993) emphasized the need for improved writing skills across disciplines influenced the writing-across-curriculum movement, which has been implemented in animal science courses at the University of Kentucky (Aaron, 1996). Simply memorizing information is not sufficient in agriculture; students must be able to

apply this information to real-world scenarios (Parrish, Brumback, & Squires, 1985). According to Scanlon and Baxter (1993), new college graduates desired to be equipped with skills — such as writing — needed to be successful in the workplace.

Smith and Bernhardt (1997) characterized writing as a business commodity. In 2005, The National Commission followed up its 2004 report to determine the importance of writing in the government sector. The report determined writing is more important in the American government than it is in the non-governmental workplace (The National Commission, 2005). Because of the ever-changing communication needs in the workplace, universities and colleges must adapt to the needs of the workplace (Gerson & Gerson, 1994; Singh, Ekanem, Tegegne, Muhammad, & Comer, 2004). According to Gerson and Gerson (1994), communication skills ranked in the top three of employers' expectations of new college graduates.

Furthermore, according to The National Commission (2003) and Smith, Charnley, and McCall (1993), university and college faculty and administration must incorporate writing into courses across all disciplines. Obtaining written communication instruction outside the English classroom is important (Stewart, 1987; The National Commission, 2003; Smith, Charnley, & McCall, 1993; Flowers and Reaves, 1991). Agricultural educators have an obligation to equip their students with the communication skills needed to succeed in the workplace (Stewart, 1987; Flowers & Reaves, 1991; Stevens, 2005). According to The National Commission (2003), writing should be a part of all disciplines; it should not be found only in the English curriculum.

Summary of Methodology

The Web-based instrument (Appendix C) contained three parts — organizational demographics, importance of writing skills in the recruitment process and the workplace, and recruiter demographics. The researcher obtained approval from The National Commission on Writing for America's Families, Schools, and Colleges to use the The Business Roundtable and National Writing Commission Human Resource Survey March 2004 as the basis for the development of the survey for this study (Appendix B).

Part One of the survey identified the types of organizations that participated in the Agricultural, Food, Environmental, and Natural Sciences Career Fair, along with the types of positions they recruit for and the number of employees associated with the organization. Part Two of the survey was related to the importance of writing abilities in the workplace and included questions addressing frequency and types of writing required of graduates in the workplace. Part Three of the survey identified the demographics of the recruiter.

A panel of experts, which included OSU and CASNR Career Services staff, CASNR faculty, and CASNR staff, tested the validity of the instrument. To check the reliability of the instrument, the researcher identified employers from the OSU CASNR database who did not recruit at the Agricultural, Food, Environmental, and Natural Sciences Career Fair from 2000 to 2005.

Each recruiter received four e-mails — pre-notification e-mail, survey e-mail, follow-up e-mail, and second follow-up e-mail. The survey e-mails contained a link to the survey on surveymonkey.com. By clicking on the survey link, the participant

consented to the terms of the study, which were approved by the OSU Institutional Review Board (Appendix A).

Population

The researcher chose to survey the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters from 2000 and 2005 because of their familiarity with new college graduates. The records for the 2000-2005 career fairs were obtained from OSU CASNR Career Services. The researcher removed the multiples from the study and surveyed the latest recruiter representing the organization. Even though 142 (N=142) recruiters have recruited at the Agricultural, Food, Environmental, and Natural Sciences Career Fair between 2000 and 2005, the research could obtain only 112 sufficient addresses. Therefore, 112 (N=112) recruiters were used in the study.

Conclusions Related to Objective One

Based on the findings of this study, career fair recruiters represent profit organizations and recruit for business- and management-type positions. Furthermore, the recruiters work for organizations that employ as many as 8,000 people and as few as four. Additionally, organizations average hiring 81 new employees annually, of which OSU CASNR students represent an average of two per year.

Conclusions Related to Objective Two

Based on the findings of this study, recruiters consider writing abilities an important part of the recruiting process and the workplace. Seventy-five percent of recruiters reported they took writing skills into consideration frequently or almost always for salaried employees; whereas, recruiters reported 57.70% for hourly employees. However, the majority of recruiters do not require job applicants to submit a sample of

writing because they assess the writing abilities of graduates most frequently by their written letter of application. In comparison to The National Commission (2004), 51 percent of Business Roundtable human resources directors of the take writing skills into consideration when hiring new employees. The researcher concluded recruiters take writing abilities into consideration when hiring new employees.

Conclusions Related to Objective Three

Based upon the findings of this study, recruiters considered almost all of new college graduates to have a responsibility for writing and the most frequent type of writing is e-mail correspondence. The recruiters reported 89.3% of new college graduates are responsible for writing in the workforce; additionally, The National Commission (2004) determined 70% of new college graduates have responsibility for writing. Furthermore, recruiters stated new college graduates use e-mail correspondence 100% in the workforce, and The National Commission (2004) found new college graduates use e-mail correspondence 98% of the time. Both studies determined oral presentations with slides/visuals and other memoranda and correspondence also were used frequently or almost always in the workplace. In addition, recruiters stated they considered accuracy, clarity, conciseness, grammar, scientific precision, and visual appeal as important or extremely important characteristics of effective communication, and they reported about 2/3rds to almost all of new college graduates possess effective communication characteristics. In comparison, The National Commission (2004) determined the six characteristics of effective communication important or extremely important.

When making promotion decisions, Agricultural, Food, Environmental, and Natural Resources Career Fair recruiters occasionally to frequently take writing skills

into consideration; whereas, Business Roundtable human resources directors consider writing skills almost never to occasionally when making promotion decisions (The National Commission, 2004). However, both studies showed opportunities to improve writing skills were available to employees only occasionally. The researcher concluded writing is an important part of the agricultural industry.

Conclusions Related to Objective Four

Based upon the findings of this study, recruiters are satisfied with the writing abilities of the graduates of OSU CASNR. The majority of recruiters reported new college graduates have the writing abilities to succeed in the workplace. In comparison, The National Commission (2004) determined 65% of new college graduates have sufficient writing abilities. Therefore, the researcher concluded the Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters are satisfied with the writing abilities of the graduates of OSU CASNR.

Recommendations

Recommendations for Practice

Based upon the conclusions of this study, the following are recommended for further practice.

1. To ensure students stay competitive, faculty and administration should continue to stay abreast of the changing communication needs in the agricultural industry.
2. OSU CASNR should assess current writing curriculum in the college.
3. OSU CASNR faculty should continue to incorporate basic skills, such as writing, into agricultural curriculum, use writing as a way of learning, and to prepare

students for workforce communication by giving them more real-world scenario writing assignments.

4. Through career fairs, etc., faculty and staff should gain employer insight through career fairs, etc. on the writing skills they desire graduates to have when entering the workforce.

Recommendations for Research

Based upon the conclusions of this study, the following are recommended for further research.

1. Replicate this study every five years in OSU CASNR to ensure new college graduates continue to meet the communication needs of the agricultural industry (Stevens, 2005).
2. Determine instructors' perceptions of the writing abilities of the graduates of OSU CASNR.
3. Evaluate graduates' satisfactions of the writing education they received as students in OSU CASNR.
4. Compare a writing-intense class to a non-writing-intense class to evaluate which class better prepares students for the writing responsibilities in the agricultural industry.

REFERENCES

"A Ticket to Work… Or a Ticket Out" Copyright © 2004 The College Board, *www.collegeboard.com*. Reproduced with permission.

Aaron, D. K. (1996). Writing across the curriculum: Putting theory into practice in animal science courses. *Journal of Animal Science, 74*, 2810-2827.

Andelt, L. L., Barrett, L. A. & Bosshamer, B. K. (1997). Employer assessment of the skill preparation of students from the College of Agricultural Sciences and Natural Resources University of Nebraska-Lincoln: Implications for teaching and curriculum. *NACTA Journal, 41*(4), 47-53.

Agress, L. (2002). Working with words in business and legal writing. Cambridge, Massachusetts: Perseus Publishing.

Benjamin, H. R. W. (1962). Agricultural education in different stages of national development. *Journal of Economic History, 227*(4), 547-554.

Berghage, R. D. & Lownds, N. K. (1991). Using writing in horticulture education. *HortTechnology, 1*(1), 124-126.

Best, S. J. & Krueger, B. S. (2004). Internet data collection. Thousand Oaks, California: SAGE Publications Inc.

Boone, K., Meisenbach, T., & Tucker, M. (2000). Agricultural communications: Changes and challenges. Ames, Iowa: Iowa State University Press.

Burnett, C. & Tucker, M. (2001). *Writing for agriculture: A new approach using tested ideas* (2nd ed.). Dubuque, Iowa: Kendall/Hunt Publishing Company.

Casari, L. E. & Povlacs, J. T. (1988). Practices in technical writing in agriculture and engineering industries, firms, and agencies. *Journal of Technical Writing and Communication, 18*(2), 143-159.

Cobia, D. W. (1986). Incorporating writing in agricultural courses. *NACTA Journal, 30*(2), 22-25.

Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method* (2nd ed.) [2007 update with Internet, visual, and mixed-mode guide]. Hoboken, New Jersey: John Wiley & Sons, Inc.

Flowers, J. & Reaves, R. (1991). Writing and learning skills—a good combination in agricultural education. *Agricultural education magazine, 64*(3), 9-10, 16.

Gerson, S. M. & Gerson, S. J. (1994). Meeting corporate needs: How technical writing can prepare students for today's changing work place. *Journal of Technical Writing and Communication, 24*(2), 197- 206.

Graham, D. L. (2001). Employer perception of the preparation of agricultural and extension education graduates. *Journal of Southern Agricultural Education Research, 51*.

Hansen, F. (2006). Far from obsolete, career fairs are a low-cost way for firms to hire quickly and fill pipelines. *Workforce Management, 85*(4), 46-47.

Harder, A. (2006). The neglected life skill. *Journal of Extension, 44*(1).

Jackson, D. S. (1972). Effective writing: Ag alumni say it's essential. *NACTA Journal, 16*(2), 42-43.

Kelemen, D. R. (2006). *Effects of a process writing curriculum on students in an agricultural communications course: An experimental study*. Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Linder, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education, 42*(4), 43-53.

Litzenberg, K. K. & Schneider, V. E. (1987). Competencies and qualities of agricultural economics graduates sought by agribusiness employers. *American Journal of Agricultural Economics.*

Maciorowski, K. G. & Ricke, S. C. (2000). Improving content writing instruction in an undergraduate food bacteriology class. *Dairy, Food and Environmental Sanitation, 20*(3), 196-204.

McDowell, G. R. (2002, October). Land-grant universities and extension into the 21st century: Renewing the covenant. Paper presented at the meeting of the Washington State University Cooperative Extension, Pullman, WA.

McDowell, G. R. (2003). Engaged universities: Lessons for the land-grant universities and extension. *The ANNALS of the American Academy of Political and Social Science, 585*(1), 31-50.

Miller, L. E. & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension, 21*(5), 45-50.

Muijs, D. (2004). Doing quantitative research in education with SPSS. Thousand Oaks, California: SAGE Publications Inc.

National Association of Colleges and Employers. (2006). NACE Research: Job Outlook 2006.

Nichols, W. R., et al. (2001) *Random House Webster's unabridged dictionary* (2nd ed.). New York: Random House.

Orr, C. L. (1996). Communication across the curriculum in animal science. *Journal of Animal Science, 74*, 2828-2834.

Parrish, D. J., Brumback Jr., T. B., & Squires, M. (1985). Writing to learn in agronomy. *Journal of agronomic education, 14*, 27-30.

Payne, B. K. & Sumter, M. (2005). College students' perceptions about career fairs: What they like, what they gain, and what they want to see. *College Student Journal, 39*(2), 269-276.

Radhakrishna, R. B. & Bruening, T. H. (1994). Pennsylvania study: Employee and student perceptions of skills and experiences needed for careers in agribusiness. *NACTA Journal, 38*(1), 15-18.

Roberson, D. L., Flowers, J. & Moore, G. E. (2001). The status of integration of academic and agricultural education in North Carolina. *Journal of Career and Technical Education, 17*(1).

Scanlon, D. C. & Baxter, C. A. (1993). An examination of 'on-the-job' writing of recent college of agricultural sciences graduates. *Journal of Applied Communications, 77*(2), 1-11.

Schneider, B. & Andre, J. (2005). University preparation for workplace writing: An exploratory study of the perceptions of students in three disciplines. *Journal of Business Communication, 42*(2), 195-218.

Singh, S. P., Ekanem, E., Tegegne, F., Muhammad, S., & Comer, S. (2004). *An evaluation of skills and attribute of agriculture/agribusiness graduates for biobased industry and economy.* Paper presented at the meeting of the IAMA World Food and Agribusiness Symposium, Montreaux, Switzerland.

Smith, E. L. & Bernhardt S. A. (1997). Writing at work: Professional writing skills for people on the job. New York: McGraw Hill.

Smith, L., Charnley, J, & McCall, W. (1993). Writing to learn in agriculture and natural resources courses. *NACTA Journal, 37*(2), 32-35.

Stevens, B. (2005). What communication skills do employers want? Silicon valley recruiters respond. *Journal of Employment Counseling, 42*(1), 2-9.

Stewart, B. R. (1987). Teaching the basics in agriculture. *Agricultural education magazine, 59*(11), 11.

The National Commission on Writing for America's Schools and Colleges. (2003, April). The neglected "R": The need for a writing revolution. Retrieved March 20, 2006, from http://www.writingcommission.org.

The National Commission on Writing for America's Families, Schools, and Colleges. (2004, September). Writing: A ticket to work … or a ticket out: A survey of business leaders. Retrieved March 20, 2006, from http://www.writingcommission.org.

The National Commission on Writing for America's Families, Schools, and Colleges. (2005, July). Writing: A powerful message from state government. Retrieved March 20, 2006, from http://www.writingcommission.org.

Tobey, D. M. (1979). Writing instruction in economics courses: Experimentation across disciplines. *Journal of the Northeastern Economics Council, 8*(2), 159-164.

U.S. National Science Foundation: Division of Science Resources Statistics. (2003). *National Survey of Recent College Graduates.* Arlington, VA. Retrieved March 4, 2007, from http://www.nsf.gov/statistics/srvyrecentgrads.

Wada, A. C., Mian, M. A. W., Anaso, A. B., Gworgwor, N. A., Odo, P. E., & Misari, S. M. (2000). Writing and communication of agricultural information by some graduate and post-graduate students of the Department of Crop Science, University of Maiduguri, Nigeria. *Journal of Agricultural & Food Information, 4*(1), 39-53.

Wellman, J. D., McMullen, J. Q., and Hirsch, G. N. (1990). Evaluation of a writing improvement program. *Journal of Forestry, 88*(11), 24-27.

Zinsser, W. (2006). On writing well: the classic guide to writing nonfiction. New York: HaperCollins Publishers.

APPENDIX A

Institutional Review Board Approval Form

Oklahoma State University Institutional Review Board

Date:	Thursday, November 09, 2006
IRB Application No	AG0649
Proposal Title:	Employers' Perceptions and Satisfaction of the Writing Abilities of the Graduates of the Oklahoma Sate University Agricultural Sciences and Natural Resources
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 11/8/2007

Principal Investigator(s)

Holli Leggette
1208 N. Knoblock #5
Stillwater, OK 74075

Shelly Sitton
448 Ag
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☑ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sue C Jacobs

Sue C. Jacobs, Chair
Institutional Review Board

APPENDIX B

The Questionnaire Approval Letter

CollegeBoard connect to college success™

August 17, 2006

Holli Leggette
c/o Shelly Sitton
Oklahoma State University
448 Agricultural Hall
Stillwater, OK 74078

Re: ***"A Ticket to Work… Or a Ticket Out"***
Appendix E Questionnaire, Pp. 38 - 39
http://www.collegeboard.com/prod_downloads/writingcom/writing-ticket-to-work.pdf

Dear Ms. Leggette:

Thank you for your request for permission to reprint the aforementioned pages, for the purposes indicated below:

Title:	**Employer Perceptions of Oklahoma State University Agricultural Sciences and Natural Resources Graduates' Writing Abilities**
Author:	**Holli Leggette and Shelly Sitton**
Distribution:	**Employers of OSU College of Agricultural Studies & Natural Resources Grads**
Distribution date:	**Fall 2006**
Quantity:	**100**
Price:	**Free**

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Thank You,

Sharon A. Zink

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Associate General Counsel

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APPENDIX C

The Survey Instrument

Oklahoma State University
College of Agricultural Sciences and Natural Resources
Survey of Career Fair Recruiters

Thank you for participating in this survey. It contains 24 questions and will take approximately 10 minutes to complete. By participating in this survey, you will help the Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) identify the areas within its curriculum needing improvement. Thank you for taking the time to assist us with preparing our graduates for the workforce.

Please answer the following questions about your organization.

1. What is the nature of your organization?
   Profit
   Non-profit
   Education
   Government

2. For what types of positions does your organization hire?
   Scientific and Engineering
   Agricultural Forestry and Production
   Education, Communication and Government
   Management and Business

3. How many employees did your organization employ on January 1, 2006?
   in the US outside the US

4. On average, how many new employees were hired yearly from January 1, 2000 to December 31, 2005?
   in the US outside the US

5. On average, how many graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) did you hire yearly from January 1, 2000 to December 31, 2005?
   in the US outside the US

For each statement below, please describe your organization's practices. We are interested in your experience, not what you hear about practices elsewhere. For each statement, please mark the responses that most clearly describe what happens in your organization.

6. Do you take writing skills (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new employees? *(Please select the most appropriate response for each type of employee.)*

A. Professional staff	1 Almost never	2 Occasionally	3 Frequently	4 Almost always
B. Hourly staff	1 Almost never	2 Occasionally	3 Frequently	4 Almost always

7. How many employees have some responsibility for writing (either explicit or implicit including letters, reports, emails, etc.) in their position descriptions?

A. Professional staff	1 A few	2 About 1/3rd	3 About 2/3rds	4 Almost all
B. Hourly staff	1 A few	2 About 1/3rd	3 About 2/3rds	4 Almost all

8. When a job either explicitly or implicitly requires writing skills, how do you usually assess a job applicant's writing ability? (Please select all that apply.)
   - A Writing sample provided by job applicant
   - B Writing test taking during the job interview
   - C Review of coursework on résumé
   - D Impressions based on letter/written application
   - E Open Web forum (e.g., Facebook, MySpace, blogs, etc.)
   - F Personal communication with references

9. When hiring new employees, how often are samples of written materials or presentations required of the applicant?

A. Professional staff	1 Almost never	2 Occasionally	3 Frequently	4 Almost always
B. Hourly staff	1 Almost never	2 Occasionally	3 Frequently	4 Almost always

10. If a job applicant's letter or other written materials were poorly composed (i.e., grammatically incorrect or hard to understand) would that count against the applicant in hiring?

A. Professional staff	1 Almost never	2 Occasionally	3 Frequently	4 Almost always

B. Hourly staff 1 Almost never 2 Occasionally 3 Frequently 4 Almost always

11. How much are good writing skills worth to your organization when hiring new college graduates?
$0 – 1,000
$1,001 – 2,500
$2,501 – 5,000
$5,001 – 7,500
$7,501 – 10,000
more than $10,000

For each statement below, please describe your organization's practices. We are interested in your experience, not what you hear about practices elsewhere. For each statement, please mark the responses that most clearly describe what happens in your organization.

12. Listed below are several forms of communication common in American organizations. Please indicate how frequently each form is used in your organization.

	Almost never	Occasionally	Frequently	Almost always
A. E-mail correspondence	1	2	3	4
B. Other memoranda and correspondence	1	2	3	4
C. Oral presentations with slides/visuals (e.g., PowerPoint)	1	2	3	4
D. Oral presentations without visuals	1	2	3	4
E. Formal reports	1	2	3	4
F. Technical reports	1	2	3	4
G. Web text	1	2	3	4

13. Effective written communication can have a number of different characteristics. In your organization, how important are each of these characteristics?

	Not at all important	Not very important	Important	Extremely important
A. Accuracy	1	2	3	4
B. Clarity	1	2	3	4
C. Conciseness	1	2	3	4
D. Scientific precision	1	2	3	4
E. Visual appeal	1	2	3	4
F. Spelling, punctuation and grammar	1	2	3	4

14. In your organization's current workforce, approximately how many employees have most or all of the skills listed in the previous question?

A. Professional staff 1 A few 2 About 1/3rd 3 About 2/3rds 4 Almost all

B. Hourly staff 1 A few 2 About 1/3rd 3 About 2/3rds 4 Almost all

15. Approximately how many of your employees who are graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) have the writing skills that your organization most values?

A. CASNR Grads 1 A few 2 About 1/3rd 3 About 2/3rds 4 Almost all

16. How satisfied are you with the writing abilities of the graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR)?

A. Hired 1 Not at all satisfied 2 Not very Satisfied 3 Satisfied 4 Extremely Satisfied

A. Interviewed 1 Not at all satisfied 2 Not very Satisfied 3 Satisfied 4 Extremely Satisfied

17. Does your organization take effective writing skills into account when making promotion decisions?

A. Professional staff 1 Almost never 2 Occasionally 3 Frequently 4 Almost always

B. Hourly staff 1 Almost never 2 Occasionally 3 Frequently 4 Almost always

18. If an employee possesses outstanding technical but poor writing skills, does your organization provide training to help him or her improve writing skills?

A. Professional staff 1 Almost never 2 Occasionally 3 Frequently 4 Almost always

B. Hourly staff 1 Almost never 2 Occasionally 3 Frequently 4 Almost always

19. If your organization provides writing training, what is your estimate of the annual cost per trained employee?
$0 – 500
$501 – 1,000
$1,001 – 1,500

more than $1,500

20. Please provide additional information about CASNR graduates.

21. Are you an Oklahoma State University graduate?

Please answer the following questions based on your background. The information will be kept confidential, and you will not be identified for any reason.

22. What was your major?

23. What year did you graduate?

24. Were your writing abilities adequate when you entered the workforce?

Thank you for completing this survey. We appreciate your assistance with preparing our graduates for the workforce.

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APPENDIX D

Participant Contact E-mails

Pre-notification Email

The Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) wants to compile information about employers' perceptions and satisfactions of the writing abilities of CASNR graduates. Your participation in this study is voluntary, and you can discontinue your participation at any time.

To conduct this research, we are surveying the Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters from 2000 to 2005. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. Your identity will be kept confidential and will not be disclosed in any part of the study. Data from this research will be stored in a locked file cabinet, which is accessible only to the researchers, until December 31, 2011. Data only will be reported in the aggregate; no individuals will be identifiable.

You should plan to receive the survey within one week. The majority of questions will ask for your perceptions; however, you will be asked about number of employees in your company, the average number of employees hired annually and average number of OSU CASNR graduates hired annually. It will be helpful to have this information at hand before beginning the survey.

By participating in this survey, you will help OSU CASNR identify the areas within its curriculum needing improvement. Thank you for taking the time to assist us with preparing CASNR graduates for the workforce. If you have any questions, please e-mail me at holli.r.leggette@okstate.edu or my adviser, Dr. Shelly Peper Sitton, at shelly.sitton@okstate.edu.

If you desire additional information on subjects' rights, write to Dr. Sue C. Jacobs, Oklahoma State University IRB Chair, 219 Cordell North, Stillwater, OK 74078. Dr. Jacobs also can provide information via e-mail at irb@okstate.edu, and questions can be answered by telephone at 405-744-1676.

Holli Leggette
Master's student
OSU Agricultural Communications

Survey Email

The Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) wants to compile information about employers' perceptions and satisfactions of the writing abilities of CASNR graduates. Your participation in this study is voluntary, and you can discontinue your participation at any time.

To conduct this research, we are surveying the Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters from 2000 to 2005. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. Your identity will be kept confidential and will not be disclosed in any part of the study. Data from this research will be stored in a locked file cabinet, which is accessible only to the researchers, until December 31, 2011. Data only will be reported in the aggregate; no individuals will be identifiable. By clicking on the survey link, you have given your consent to participate in the study.

This survey contains 24 questions and will take approximately 10 minutes to complete. In some of the questions, you will be asked how many employees your company had on Jan. 1, 2006, as well as how many employees you have hired in the last five years from OSU and other institutions. It will be helpful to have that information at hand before beginning the survey.

By participating in this survey, you will help OSU CASNR identify the areas within its curriculum needing improvement. Thank you for taking the time to assist us with preparing CASNR graduates for the workforce. If you have any questions, please e-mail me at holli.r.leggette@okstate.edu or my adviser, Dr. Shelly Peper Sitton, at shelly.sitton@okstate.edu.

If you desire additional information on subjects' rights, write to Dr. Sue C. Jacobs, Oklahoma State University IRB Chair, 219 Cordell North, Stillwater, OK 74078. Dr. Jacobs also can provide information via e-mail at irb@okstate.edu, and questions can be answered by telephone at 405-744-1676.

Holli Leggette
Master's student
OSU Agricultural Communications

First Follow-up Email

The Oklahoma State University College of Agricultural Sciences and Natural Resources (CASNR) wants to compile information about employers' perceptions and satisfactions of the writing abilities of CASNR graduates. Your participation in this study is voluntary, and you can discontinue your participation at any time.

About a week ago, we sent you a survey link via e-mail about employers' perceptions and satisfactions of the writing abilities of Oklahoma State University College of Agricultural Sciences and Natural Resources graduates.

As of today, we have not received a completed survey from you. We realize you are busy; however, we contacted you hoping to gain information only you can provide. To conduct this research, we are surveying the Agricultural, Food, Environmental and Natural Sciences Career Fair recruiters from 2000 to 2005. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. Your identity will be kept confidential and will not be disclosed in any part of the study. Data from this research will be stored in a locked file cabinet, which is accessible only to the researchers, until December 31, 2011. Data only will be reported in the aggregate; no individuals will be identifiable. By clicking on the survey link, you have given your consent to participate in the study.

In case the previous questionnaire has been deleted, we have included it again. This survey contains 24 questions and will take approximately 10 minutes to complete. In some of the questions, you will be asked how many employees your company had on Jan. 1, 2006, as well as how many employees you have hired in the last five years from OSU and other institutions. It will be helpful to have that information at hand before beginning the survey.

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Holli Leggette
Master's student
OSU Agricultural Communications

Second Follow-up Email

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In case the previous questionnaire has been deleted, we have included it again. This survey contains 24 questions and will take approximately 10 minutes to complete. In some of the questions, you will be asked how many employees your company had on Jan. 1, 2006, as well as how many employees you have hired in the last five years from OSU and other institutions. It will be helpful to have that information at hand before beginning the survey.

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Holli Leggette
Master's student
OSU Agricultural Communications

APPENDIX E

Additional Information about Agricultural, Food, Environmental, and Natural Science Career Fair Recruiters

Major at OSU

General Business
Agronomy
Agricultural Economics
Biology, Zoology
Animal Science

Year of graduation

1970
1995
Bachelor of Science 1992, Master of Science 1996
1975
1999

Adequate writing abilities upon entrance into the workforce

Yes
Yes
Good
No
Yes, but they have improved

APPENDIX F

Additional Information about CASNR Graduates

Overall weak in communications area; weak written, weak verbal, poor grammar & spelling. Overall a very poor impression. The value of effective written and verbal communication is underestimated by the CASNR graduates to the extent that they believe it to be irrelevant.

I am usually impressed by the graduates who I interview. However, many are not willing to move and relocate to Texas for employment with our organization. Too many of the young graduates are not willing to move too far away from home and in another state.

I have been very pleased with the overall performance of the OSU graduates that I have hired. They are well-rounded, professional individuals who bring a lot to our company. I fully intend to seek out and hire more qualified OSU graduates.

I have not been pleased with the writing skills of our OSU graduates because I continually find myself spending time editing their work. It is on my plate to send them through additional training.

In my interaction with the students on an overall basis, they do not seem as professional as students at other Ag related events, but they are not the worse. I've visited schools with students who have far less professionalism.

We are a recruiting company. We have a market that requires advanced degrees or several years of experience.

I am pleased with the progress of those I've hired.

VITA

Holli RaNae Leggette

Candidate for the Degree of

Master of Science

Thesis: EMPLOYERS' PERCEPTIONS OF THE WRITING ABILITIES OF THE GRADUATES OF THE OKLAHOMA STATE UNIVERSITY COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES

Major Field: Agricultural Communications

Biographical:

Personal Data: Born in Ulysses, Kansas, on February 20, 1983, the daughter of Thomas and Linda Leggette

Education: Graduated from Ulysses High School, Ulysses, Kansas, in May 2001; received Bachelor of Science degree in Agribusiness from Oklahoma Panhandle State University, Goodwell, Oklahoma, in May 2005. Completed the requirements for the Master of Science degree with a major in Agricultural Communications at Oklahoma State University in May, 2007.

Experience: Residential Assistant for Office of Student Affairs at Oklahoma Panhandle State University, August 2003 to April 2005; Teaching Assistant for the College of Agricultural Sciences and Natural Resources at Oklahoma State University, May 2005 to May 2007; Graduate Assistant for the College of Agricultural Sciences and Natural Resources at Oklahoma State University, May 2005 to May 2007.

Professional Membership: Agricultural Communicators of Tomorrow, Member; Oklahoma State University Agricultural Education Graduate Student Association, Chapter Treasure, 2005-2006, Chapter Vice President, 2006-2007.

Name: Holli Leggette Date of Degree: May, 2007

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: Employers' Perceptions of the Writing Abilities of the Graduates of the Oklahoma State University College of Agricultural Sciences and Natural Resources

Pages in Study: 103 Candidate for the Degree of Master of Science

Major Field: Agricultural Communications

Scope and Method of Study: The purpose of this study was to determine the 2000-2005 Agricultural, Food, Environmental, and Natural Sciences Career Fair recruiters' perceptions of the writing abilities of the graduates of Oklahoma State University (OSU) College of Agricultural Sciences and Natural Resources (CASNR). The researcher used a Web-based survey to determine the organizational and recruiter demographics and the importance of writing skills in the recruitment process and workplace.

Findings and Conclusions: The findings revealed the majority of recruiters took writing skills into consideration frequently or almost always and they assessed the writing abilities of graduates most frequently by their written letter of application. In addition, recruiters indicated almost all of their employees have some responsibility for writing and the most frequent type of writing is e-mail correspondence. Overall, recruiters reported they were satisfied with the writing abilities of the graduates of OSU CASNR.

Shelly Sitton

Advisor's Approval: _____