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The Relationship Between Competencies Perceived to be Important for Administrative Effectiveness and the Higher Education Administration Doctoral Program of Study : A Needs Assessment

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THE RELATIONSHIP BETWEEN COMPETENCIES PERCEIVED TO BE IMPORTANT FOR ADMINISTRATIVE EFFECTIVENESS AND THE HIGHER EDUCATION ADMINISTRATION DOCTORAL PROGRAM OF STUDY: A NEEDS ASSESSMENT

DISSERTATION

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ABSTRACT

The Relationship Between Competencies Perceived to be Important for Administrative Effectiveness and the Higher Education Administration Doctoral Program of Study: A Needs Assessment

The duties of higher education administrators have become more complex as a result of issues relating to decreased funding, competition between and among institutions, and increasingly sophisticated technology. Therefore, it is important for doctoral programs in higher education administration to ensure that their curricula remain current. A needs assessment, similar to the one in this study, is an accepted way of accomplishing that goal. Higher education administrators, graduates from two public universities ($n = 213$), were surveyed to obtain their opinions on whether or not 25 administrative competencies culled from the literature were addressed in their programs of study and were important to the job of an administrator. Their opinions were also solicited as to their perceived personal competence upon graduation and at the time of the survey. Significant differences at the $p<.01$ and $p<.05$ levels were found with regard to respondents' ages, sex, years of experience, and graduate institutions. Significant differences at the $p<.01$ and $p<.05$ levels were also found when relating respondents' perceived competence upon graduation and at the time of the survey, suggesting that internships providing actual experience in a real administrative setting may allow graduates of doctoral programs in higher education administration to feel more capable. Caution should be exercised when assuming that instruction alone can compensate for deficiencies in competence since respondents ($n = 152$) indicated a significant difference ($p<.01$) in perceived competence between graduation and the time of the survey, suggesting that on-the-job experience may afford administrators greater competence than instruction.

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CHAPTER 1

From the inception of Harvard University in 1638 to the present, higher education has operated within a climate of change (Zemsky, Massy & Oedel, 1993). Modifications in higher education have historically been precipitated by the varying needs of society, evolving from the rather simple educational needs of the cleric to those of an increasingly complex and industrialized nation. Higher education in the United States continues to evolve, striving to keep pace with the relentless march of technology, shrinking budgets, and the demands of higher education consumers (Zemsky, et al., 1993). Negotiating the changes in higher education will be a challenging task in the 21st century and will require strong leaders who are equipped with an armor of leadership competencies. These leaders need to be adequately prepared in order to guide colleges and universities through the curricular, governance and financial transformations that will be necessary for institutional survival (Levine, 1992; Stallings, 2001; Zemsky & Massy, 1995). Doctoral programs of study in higher education administration purport to provide this preparation.

The purpose of this study is to examine the relationship between the abilities required to be competent as a higher education administrator in these complex times and the doctoral program of study in higher education administration at the Marshall University/ West Virginia University Cooperative program and Ohio University, two public institutions. Specifically, are these programs of study adequately preparing graduates of their programs by offering instruction that develops or strengthens the abilities necessary to be competent as higher education administrators?

Several topics are covered herein as background information leading to the consideration of this research question. Due to the status of Marshall University/ West

Virginia University, and Ohio University as public institutions, information gathered as background and the review of literature will pertain primarily to institutions of that classification except for the historical references to the private institutions from which our current public institutions evolved. Higher education administration programs of study are normative in nature, most programs being similar to one another in structure and content (see Appendix B).

Introductory remarks offer perspective on the evolution of higher education administration from the simpler clerical institution to the complex institutions of the present day. A chronology of leadership theory is incorporated as well since it exhibits a similar progression from the rather simplistic trait theory to the more multifaceted and inclusive transformational theory. Since transformational leadership theory exemplifies many of the leadership qualities 21st century administrators may require, it will be further developed.

The current, constrained financial climate of public higher education is examined, having resulted in rising tuition and fees, thus causing consumers of higher education to demand greater accountability for preparing graduates with the necessary skills for a competitive job market. As the pressure for accountability mounts, it is possible that colleges and universities will have to justify funding their various programs of study based on efficacy.

The higher education administration program of study will be traced from its inception at Clark University when only one course was offered to the present day core courses required by Marshall University, WVU and some of their peer institutions. A review of leadership literature, revealing a list of abilities thought to be important to

leaders of complex organizations such as colleges and universities, will form the basis for the author-developed questionnaire proposed for this study, and the functionalist theoretical framework which provides the foundation for this research will be explicated. Finally, justification will be submitted for the use of the developed questionnaire as a needs assessment instrument to evaluate the aforementioned higher education administration programs of study, thus potentially catalyzing curriculum modifications.

Introduction

Change has enveloped higher education administration since 1638 with the inception of Harvard. Men were trained at Harvard to be ministers, moral businessmen and statesmen (Hofstadtler & Smith, 1968), and the campus and student body were small enough for one person, the president, to perform all the duties necessary to run the institution from registering students to overseeing faculty. Additionally responsible for the moral education of the students, the president was a cleric as were most of the faculty (Hofstadtler & Smith, 1961).

As the country both expanded and became more complex, colleges grew larger and more complicated so that one person could no longer manage all the administrative duties. By the middle of the eighteenth century, librarians and registrars joined the ranks of tutors and professors in assisting the president in educating and supervising the students (Brubacher & Rudy, 1958). In addition to the changes in staff, curricular changes also were made to meet the changing needs of the population (Vesey, 1965). Science, mineralogy and navigation courses were added to serve the population as the

business industry grew to keep pace with the expanding body of knowledge, and to stay competitive with the more progressive European universities (Vesey, 1965).

As the curriculum expanded, so did the size of institutions and the size of their endowments from fund-raising and increased tuition, requiring more expert business management. Despite arguments from some like Noah Porter of Yale, clergy were held to be insufficiently knowledgeable in the sciences and in business acumen to lead the more complicated institutions (Brubacher & Rudy, 1958). Seasoned businessmen were seen with increasing frequency as college presidents.

After the Civil War and continuing until the end of the nineteenth century, "presidential giants" (Kerr, 1972) stood at the helm of higher education institutions, helping to transform their colleges and universities to serve an industrialized nation (Kerr, 1972). The strict classical curriculum was modified to include electives that would further expand the minds and the experiences of the students (Kerr, 1972). By the early 1900s, college administration had assumed much of its present form, composed of the "president, deans, business staff and often a number of senior professors who regularly supported the president's wishes" (Vesey, 1965, p. 305).

College and university enrollments grew with the increased population of the country, and courses and programs of study were added to address the diversity of the professions and the expanding interests of the students. There was a resultant growth in faculty who differentiated and organized into their various specialized departments (Brubacher & Rudy, 1958). Faculty gained power due to their numbers, and the result was more academic freedom and the formation of an academic senate. Administrators assumed a lower profile and, for the most part, served the faculty (Kerr, 1972).

After World War II and until 1980, the growth of knowledge was explosive, especially in science. Higher education was the main machine of research, funded by a government anxious to maintain world dominance (Kerr, 1972). Administrators of the post-World War II era managed comprehensive universities and colleges and had the primary responsibility of creating new visions for the future (Kerr, 1972). Funding in this era was generous and institutions thrived.

Leading a university with an expanded research agenda and a large endowment requires leadership techniques that are vastly different from those employed by leaders of historically simpler institutions. Tracing leadership theory lends some understanding to how leaders adapted their methods to accommodate the changing institutional climate.

Leadership Theory

Leadership theories have evolved from a prescriptive and industrial view to embrace a more ethical, moral, and inclusive perspective. The rather autocratic orientation of the trait or "great man" theory has given way to an increasing concern for the perspectives (and later the feelings) of the workers taking direction from a leader. As the pace of work in institutions increases, perhaps it is becoming more important to ensure that consideration is given to the feelings of others, a consideration that can often be overlooked in haste. There are, of course, many more leadership theories than are included in this document, which presents a rather truncated view of leadership theory, but those that are examined herein will afford some sense of the changes that have taken place.

Beginning with the trait or "great man" theory, it was believed that leaders were born and not made. Situational leadership theory, which was the next to emerge, posited

that leadership, rather that relying on the inherent traits of an individual, was dictated by a particular situation (Northouse, 1997). Next, contingency theory began in the 1950s as a synthesis of the trait and situational view (Heifetz, 1994). The focus shifted away slightly from the leader to center on the situation in which the leader finds himself or herself (Northouse, 1997). Transactional leadership theory, the next to appear, is based on a bartering or exchange model (Fields & Herold, 1997). In exchange for goal achievement, workers are rewarded with praise, promotions, or salary increase (Fields & Herold, 1997). Path-goal theory followed, considering the methods used by leaders to motivate subordinates on a path toward completing the goals of an organization (Northouse, 1997). House (1971) suggested that leaders could affect the performance of a group by offering rewards for achieving goals, by clarifying the path toward goals or by removing obstacles to performance.

The last to be considered here, transformational leadership, "refers to the process whereby an individual engages with others and creates a connection that raises the level of motivation and morality of both the leader and the follower" (Northouse, 1997, p. 131). The institutional or organizational vision is shared by leader and follower, with leaders building trust and respect while inspiring followers to raise their self-expectations (Northouse, 1997; Zacharatos, Barling, & Kelloway, 2000). Transformational leadership is grounded in moral foundations, stressing honesty and integrity (Bass & Steidlmeier, 1999; Peilstick, 1998). Transformational leaders are described as passionate (Pielstick, 1998), inspiring and energizing (Bass, 1990), determined and self-confidant (Bass, 1995), supportive of change (Kirby & Paradise, 1992), articulate, and investing in the development of other people's skills (Kouzes & Posner, 1995). Transformational leaders

empower and nurture followers to attain the highest possible level of personal accomplishment (Northouse, 1997) while building teams and delegating responsibilities to bring the organization to new levels of attainment (Bass, 1995). It is a leadership style that can be taught, according to Bass (1990) and, since higher education institutions can no longer be run by small staffs of just a few people, transformational leadership may show promise for a style of leadership that can carry higher education successfully through the difficulties of a complex era, based as it is on cooperation, support and an inclusive style of leadership.

Building teams and developing the potential of others are important skills for a contemporary leader in higher education as institutions are called upon to reach higher levels of accountability. The fiscal constraints of the current era may be responsible for some of the public outcry for accountability.

Current Fiscal Issues

The 1990s ushered in an age of heightened fiscal accountability for higher education (Hovey, 1999; Leathwood & Phillips, 2000; Levine, 1992; Wallace, 1993; Zemsky & Massy, 1995). Competition for state funding dollars still remains increasingly aggressive with kindergarten through 12th grade education (K-12), Medicaid and corrections proving to be higher education's primary competitors for scarce state funds (Hovey, 1999; Levine, 1992; Matthews, 1998; Wallace, 1993). New initiatives are proposed for the K-12 sector that would improve the teaching of math and science, inner city schools and the number of school counselors (Hovey, 1999; Spencer, 2001), further reducing dollars allocated to higher education. These initiatives compete for state and federal dollars (Hovey, 1999), assuring that state discretionary funds allocated to higher

education will continue to decrease and higher education will be subjected to even greater scrutiny (Hovey, 1999; Wallace, 1993; Zemsky & Massy, 1995).

Difficult questions are being posed about cost, pricing, access, productivity and the outcomes and effectiveness of colleges and universities (Levine, 1992; Zemsky & Massy, 1995). In response to decreased external funding, public higher education tuition costs are rising (Levine, 1992; Zemsky & Massy, 1995; Wallace, 1993) causing parents and students to question the accountability and the quality of education and to demand justification for the large investment of their modest personal resources (Leathwood, 2000; Levine, 1992; Wallace, 1993; Zemsky, Massy & Oedel, 1993). As funding becomes scarce, institutions themselves are forced to examine their existing programs, using program efficacy as the determining factor when allocating program funds (Haller, O'Brent & McNamara, 1997). Market competition from other providers of post-secondary instruction (Carr, 2000; Goldstein, 2000; Meister, 2001; Spencer, 2001; Stallings, 2001; Winston, 2000; Zemsky & Massy, 1995) and the de-emphasizing of degrees in favor of certificate programs (Irby, 1999) lure students with promises of marketable skills and the realization that education need not be site-based due to the advantages of technology and distance education (Meister, 2001).

The aforementioned has challenged higher education, asking it to respond to changes in the environment just as it has done historically. As higher education has changed over time, so has the program of study in higher education administration, responding, in kind, by offering administrators instruction in ways to meet the challenges confronting them.

The Higher Education Administration Program of Study

G. Stanley Hall developed the first course in higher education at Clark University in 1893 (Goodchild, 1991). Later, in the school year 1908-1909, another course was developed for the College of Education at the University of Minnesota and titled *Organization of Higher Education* (Burnett, 1973). It was not until 1920, however, that a formalized professional preparation was offered for careers in higher education administration simultaneously at the University of Chicago, Ohio State University, and Teachers College, Columbia University (Burnett, 1973).

As colleges and universities became more specialized and complex, greater numbers of administrators and faculty were required (Goodchild, 1991). Despite the availability of administrative preparation programs, however, administrators have historically advanced through the faculty ranks (Crawford, 1983; Elbe, 1978; Goodchild & Fife, 1991; Moore, 1991). The department chair has served as the most common entryway to an academic administrative position (McDade, 1991).

On-the-job training provides some of the knowledge and skills necessary to function in the position of administrator, but Fife and Goodchild (1991) suggest that a larger picture of higher education is often lacking using this route. The doctoral program of study in higher education administration seeks to provide this larger picture (Townsend & Wiese, 1991). Goodchild and Fife (1991) maintain that some form of formal training is simply necessary as higher education institutions become more organizationally complex and technologically sophisticated. They also state that, among other things, as higher education is subjected to greater scrutiny as a result of higher

tuition and fees, administrators who can balance accountability on the one hand and academic freedom on the other will be increasingly valuable.

There are approximately 130 doctoral programs in higher education in the United States (Townsend & Mason, 1990). Educational associations that support the field of higher education are quite numerous, some of which are listed in Appendix A. Typically, two or three faculty members teach the majority of courses (Dressel & Mayhew, 1974) with no generally accepted or prescribed criteria for program content (M. Hemsley, personal correspondence, American Association for Higher Education, January 30, 2002), possible due to the fact that there are no higher education administration accrediting bodies. Course offerings vary according to the expertise and the interests of the faculty more than anything else (Fife, 1991). A core of courses, however, is usually common to most programs of study and typically includes higher education administration, finance of higher education, higher education law, governance and organizational policy, curriculum issues, and current issues in higher education (Fife, 1991). These core courses are reflected in the Marshall University/WVU Cooperative Doctoral program, and the West Virginia University and Ohio University residential doctoral curricula as evidenced by the chart in Appendix B.

Levine (1990) cautions that curricula become dated and less useful with the passage of time. He states that "the process of tearing them down and building them up is the way we keep them vibrant" (1990, p.52), lending credence to the process of curriculum review by needs assessment (Diamond, 1998). Zemsky and Massy (1993) suggest that higher education exists in a marketplace and that it must adjust to satisfy the changing demands of society and the changing needs of students. The higher education

administration program of study is no exception. It will be the responsibility of higher education administration programs of study to equip administrators with competencies that will enable them to effectively deal with the aforementioned complex problems. A myriad of leadership and administrative skills will be needed to choreograph the steps taken by colleges, universities and their various schools and departments as they restructure to meet the needs of contemporary students. Equipping students in administrative courses of study with certain skills is a functionalist perspective, the theory that provides the foundation for this study.

Functionalist Theory

Functionalist theory provides the theoretical framework for this study. This perspective refers not to the functionalist view which conceives of schools (particularly k-12) as not only academic institutions, but as instruments of assimilation that socialize students politically, economically and socially as well (Feinberg & Soltis, 1998). This study confines itself to the functionalist perspective adhering to the position that the practice of administration is served by the mastery of certain skills or *functions* which, properly acquired, provide the foundation for the practice.

The functionalist view of instruction assumes the direct transfer of knowledge from the instructional setting to the context of practice (Prestine, 1995). This transferal presupposes a discrete body of knowledge that can be taught and, once mastered by the student, qualifies or better prepared her or him to be an administrator (Prestine, 1995). It should be noted at this point that this is not an assumption with which Prestine agrees, nor do her colleagues (Murphy, 1995; Scheurich, 1995).

Functionalist thinking can be subsumed under the broader rubric of systems theory, which concerns itself with investigating various systems and their patterns of organization (Polkinghorne, 1983). Functions that solve complex problems can be identified in a social system (Burrell & Morgan, 1979). Once identified, those functions which serve the context of the system as a whole can be taught, ensuring that the system's day-to-day operation is maintained and ensuring that the system is capable of surviving beyond the lifespan of the current employees (Moore, 1978). Teaching others the abilities of the leader is also one of the primary tenets of transformational leadership (Bennis & Nanus, 1985; Goleman, 1998), further justifying its inclusion in this document.

Administrative Competencies Emergent from the Literature

Some of the obstacles faced by contemporary administrators have already been mentioned. Ginsberg (1993) lengthens the list to include (a) fewer traditional students and more part-time students; (b) rapidly increasing financial aid costs; (c) a greater need for tuition discounting in private schools due to greater competition from other institutions; (d) increased need to refurbish or replace aging physical plants; (e) increased need to upgrade technology and equipment; (f) increased operation costs for supplies and equipment; and (g) a strain on fundraising due, again, to competition from other institutions as well as competition from other worthy causes. These same issues still exist (Hovey, 1999). Administrators must additionally deal with the content and credibility of the degrees awarded by their institutions (Dill & Massy, 1996), sharing that responsibility with the faculty by developing programs that will withstand the test of

accountability. Dodds proposed in 1962 that, given these demands and the complexity of the job of administrator, the professorial experiences of the teacher/scholar are inadequate preparation for directing a complicated organization. Given the difficult issues of this current era, higher education administration programs of study may therefore be more important than ever before. A program of study that addresses the multifaceted competencies needed by an administrator in these times is essential to program credibility.

A review of the current leadership and management literature generates a list of 25 competencies important to a contemporary administrator in higher education. Gardner (1990) observed that leadership and management are not the same thing, but that their responsibilities overlap. A study by Velsor & Fleenor (1997) resulted in a list of management practices that further helped distinguish between leadership and management practices. For the purposes of this study, the competencies are divided into the categories of (a) management, (b) leadership, (c) human relations, and (d) curriculum.

The management group includes these skills: (a) managing the institutional resources of time and funds (Gulick & Urwick, 1936; Mayhew 1974; Goodchild & Fife, 1991; Lahti, 1973); (b) gathering, analyzing, and interpreting data for the purpose of making informed decisions (Argyris & Cyert, 1980; Bennis & Nanus, 1985; Gulick & Urwick, 1936; Haynes, 1991; Mayhew, 1974); (c) creating an organizational governance structure (Dodds, 1962; Katz & Kahn, 1966; Leslie & Fretwell, 1996; Pappas, 1993); (d) building consensus (Dodds, 1962; Leslie & Fretwell, 1996); (e) mediating and resolving conflict (Argyris & Cyert, 1980; Crawford, 1983; Goleman, 1995; Lahti, 1973; Mayhew, 1974); (f) delegating without micromanaging (Dodds, 1962; Gallagher, 1994; Lahti,

1973; Leslie & Fretwell, 1996); (g) building and facilitating teams, thereby promoting cooperation (Argyris & Cyert, 1980; Evers, et al., 1998; Gallagher, 1994; Goleman, 1995; Goleman, 1998; Katz & Kahn, 1966; Leslie & Fretwell, 1996; Robbins, 1980; Stark, et al., 1986; Townsend & Bassoppo-Moyo, 1997); and (h) managing personal time (Elbe, 1978; Evers, et al., 1998; Lahti, 1973; Townsend & Bassopppo-Moyo, 1997).

The leadership category includes the following abilities: (a) speaking and writing in a clear and concise manner (Bennis, 1985; Crawford, 1983; Drucker, 1974; Gulick & Urwick, 1936; Haynes, 1991); (b) identifying problems and their solutions (Argyris & Cyert, 1980; Goleman, 1998; Kerr, 1972; Lahti, 1973; Mayhew, 1974); (c) setting institutional goals (Bennis & Nanus, 1985; Drucker, 1974; Goleman, 1998; Pappas, 1993; Robbins, 1980); (d) considering diverse points of view and being open to new ideas (Bennis & Nanus, 1985; Crawford, 1983; Dodds, 1962; Ginsberg, 1993; Goleman, 1995; Goleman, 1998; Leslie & Fretwell, 1996; Robbins, 1980; Westerman, 1994); (e) designing a strategic plan (Argyris & Cyert, 1980; Bennis & Nanus, 1985; Cleveland, 1977; Denton & Wertz, 1993; Drucker, 1974; Evers, Rush & Berdrow, 1998; Kerr, 1972; Lahti, 1973; Murrell & Davis, 1991; Pappas, 1993; Robbins, 1980; Ruben, 1995); (f) forming partnerships with the business world (Goleman, 1998; Mayhew, 1974; Meister, 2001; Robbins, 1980); and (g) developing relationships with local, state, and national political figures (Argyris & Cyert, 1980; Dilly, 1972; Ginsberg, 1993; Goleman, 1995; Goodchild, 1991; Katz & Kahn, 1966; Lahti, 1973; Leslie & Fretwell, 1996; Vesey, 1965).

Human relations abilities include the following: (a) choosing a competent staff (American Compensation Association, 1996; Chamberlain, 1972; Dodds, 1962; Elbe,

1978; Gallagher, 1994; Lahti, 1973; Ruben, 1995; Townsend & Bassoppo-Moyo, 1997); (b) planning and implementing a staff development program (Argyris & Cyert, 1980; Chamberlain, 1972; Ginsberg, 1993; Lahti, 1973; Lewis, 1994); (c) training and motivating staff (Bennis & Nanus, 1985; Elbe, 1978; Goleman, 1995; Goleman 1998; Lahti, 1973; Leslie & Fretwell, 1996; Westerman, 1994); (d) fairly evaluating staff (Bennis & Nanus, 1985; Ginsberg, 1993; Goleman, 1995; Goleman, 1998; Ginsberg, 1993; Lahti, 1973); (e) evaluating faculty and recommending faculty for promotion and tenure (Evers, et al., 1998; Elbe, 1978; Katz & Kahn, 1966; Kotter, 1996; Ruben, 1995; Townsend & Bassoppo-Moyo, 1997); and (f) managing staff resources in an effective manner (Evers, et al., 1998; Goleman, 1998; Katz & Kahn, 1966).

Finally, curriculum competencies include these: (a) planning and implementing new academic activities (Diamond, 1998; Mayhew, 1974; Lewis, 1994; McNeil, 1981; Townsend & Bassoppo-Moyo, 1997); (b) relating research to teaching (Boyer, 1991; Oppenheimer, 1954; Zemsky & Massy, 1993); (c) developing interdisciplinary programs (Coate, 1995; Davis, Faith & Murrell, 1991; Elbe, 1978; Evans, et al., 1998; Goleman, 1998; Stark, Lowther & Hagerty, 1986); and (d) team teaching courses (Evers, et al, 1998; Goleman, 1998; Stark, et al., 1986).

Demographic Information

The perception of the importance of one competency rather than another is influenced by demographics, particularly age, sex and years of experience (Bennett, 1983; Fitzgerald, 1997; Gardner, 1990; Kouzes & Posner, 1987; Rosen & Brown, 1996). The tendency of an administrator to be more collaborative seems to increase with age as

does the tendency to be more flexible (Fitzgerald, 1997). Maturity may bring with it an enhanced ability to see the importance of building teams, thereby sharing accomplishments as well as disappointments (Rosen & Brown, 1996). Clancy (1997) further suggests that age and experience enable an administrator to balance the unsettling effects of change within a department or company against an overall feeling of satisfaction with one's state. Change does not seem to bother more mature administrators as much as those who are new to the position (Clancy, 1997).

The sex of an administrator might affect not only how the impression of subordinates, but the administrator's method of decision-making. Gardner (1990) supposes this may be due to a difference in the character of men's and women's life experiences. Women administrators tend to be more open in their views with regard to subordinates (Maccaby, 1981), more encouraging (Kouzes & Posner, 1987), and more collaborative (Rosen & Brown, 1996). Women engage in more team building (Rosen & Brown, 1996) and are more participatory decision-makers (Wolck, 1997). In the case of both men and women, experience seems to enhance insight in making decisions (Kouzes & Posner, 1987).

Men are more independent and tend to define stronger administrative boundaries by assigning clearer responsibilities (Rosen & Brown, 1996). One study, however, found no difference in the leadership styles of men and women (Wrolstad, Hazucha, Huff & Halperin, 1992).

Justification for inquiring about other demographic information is provided by Babbie (1998) and Dillman (1978), who assert that it is valuable to seek insight into how various attributes such as the institution from which an administrator graduated with

her/his highest degree may affect her/his perceptions on different issues regarding the program of study.

Examining the Curriculum

If higher education is to compete in this aggressive climate, it must reassess its ability to be responsive to a changing market (Meister, 2001; Townsend & Mason, 1990; Zemsky & Massy, 1995) and its effectiveness at delivering marketable skills (Dill, 2000; Guskin, 1996; Levine, 1992; Matthews, 1998; Stallings, 2001; Zemsky, et al., 1993). Program review and development become critical elements for the higher education institution (Levine, 1992; Stallings, 2001; Townsend & Mason, 1990). Yet, it is proposed that there are few programs that subject themselves to the type of rigorous evaluation of their effectiveness that would keep them vital and attuned to the changing needs of students (McDade, 1991) Ongoing program review that results in curriculum reform, when appropriate, will keep higher education vital and current (Levine, 1990; McDade, 1991; Stallings, 2001; Zemsky & Massy, 1995). Otherwise, higher education faces a dim future. In the words of Katz and Kahn (1966), "the history of organizations (and of nations) is littered with the corpses of enterprises which failed to respond appropriately to the demands of the environment for change" (p. 305).

In 1995, Murphy considered the educational administration program of study in general to be out of touch with the real needs of the practitioner. Part of the problem was what Murphy (1995) calls "an academic conceit," i.e. the view within academia that knowledge is created at the university (Murphy, 1995) and that it is the job of the administrators and faculty to decide what students need (Ruben, 1995). Another part of

the problem is that the needs of the students often have nothing to do with curriculum content, since curriculum content is often determined by the interests and abilities of the faculty (Mayhew, 1974). Chamberlain (1972) even posits that the simplest way to change the curriculum is to change the faculty, for curriculum is in the minds of the faculty, not the catalogue. This study proposes to consider these views from the standpoint of higher education administration.

Transforming the higher education administration curriculum to meet the needs of the student will require an increasingly open attitude of administrators and faculty alike. An ongoing, thorough, and systematic evaluation of the program of study is crucial to keep pace with the expertise demanded by today's complex institutions (Mayhew, 1974). Some feel that higher education has avoided stating desired competencies in specific terms (Diamond, 1998), thereby avoiding the responsibility for demonstrating their attainment of the goal of equipping students with those competencies. Diamond (1998) further states that even when outcome statements do exist, there is often a gap between the stated goals and what is taught and assessed. Therefore, he suggests, a clear statement of goals should arise out of an analysis of needs and be followed by the design of a curriculum that addresses the practical competencies required of the student on the job (Diamond, 1998). If new courses need to be added, the primary justification should be to fill a gap in the present list of offerings (Diamond, 1998), not merely that a particular faculty member has a research interest in that area.

Data collection through a needs assessment questionnaire is considered to be an effective way to define desired learning outcomes and curriculum content (Diamond, 1998; Kaufmann & English, 1979; Mc Neil, 1981; Stallings, 2001; Udinsky, Osterlind &

Lynch 1981). Evaluation of a program by graduates may result in a list of desirable student outcomes or competencies (Diamond, 1998). These data may then comprise a part of an assessment as to whether the program is effective in helping students reach a status of competency by offering perspective as to what *should* be added and not just evaluating what actually *was* offered. Following an assessment, new instructional goals can then be formulated and implemented (Diamond, 1998) to help a program rise from the ranks of barely adequate to one that is actively seeking to serve the needs of students and society.

Summary

Societies have historically become increasingly complex as they have evolved. The same is true for the organizations and institutions that have been established by societies to address their social, economical, political and educational needs. Complexity has required higher education administrators to develop new competencies to adequately deal with new issues and the problems of a fast-paced work environment. Higher education administration programs of study run the risk of becoming not only stagnant but also outdated and ineffective unless efforts are made to determine the current competencies needed by those in the profession and to take the appropriate steps to upgrade the curriculum (Guskin, 1996; Levine, 1990; Levine, 1992; Stallings, 2001; Zemsky, Massy & Oedel, 1993). Research supports the use of needs assessment questionnaires to determine the competencies required in this new era of higher education administration (Diamond, 1998; Stallings, 2001), which can then be used as a template to

reevaluate the curriculum and recommend the changes necessary to prepare graduates of a program in a more effective manner (Diamond, 1998).

Research Questions

The purpose of this study is to explore the relationship between higher education administrators' perceptions of the content of their programs of study as it relates to the competencies required to adequately function in their positions. The following questions will be answered in this study.

1. What is the extent to which graduates of the programs of study in higher education administration at Marshall University/West Virginia University and Ohio University perceive the leadership competencies emergent from the literature as having been addressed in their programs of study?
2. What is the extent to which graduates of the programs of study in higher education administration at Marshall University/West Virginia University, and Ohio University perceive the leadership competencies emergent from the literature as being important in their jobs as administrators?
3. What is the relationship, if any, between the ages, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of the extent to which each emergent competency was addressed in their programs of study in higher education administration?
4. What is the relationship, if any, between the ages, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of

the degree to which each emergent competency is important to their jobs as administrators?

Operational Definitions

For the purpose of this study, the following operational definitions are used.

1. Higher education administrator – any position of leadership in a college or university including but not limited to provost, president, vice president, dean, department chair, librarian, registrar, director or student affairs coordinator.
2. Program of study – the doctoral instruction the respondent received at Marshall University, West Virginia University or Ohio University as partial fulfillment for the EdD degree with a major in higher education administration.
3. The perception of the extent to which the leadership competencies were addressed in the respondent's program of study – the respondent's indications on the Likert response scale ranging from 5-"strongly agree" to 1-"strongly disagree".
4. The perception of the extent to which the leadership competencies are important in the respondent's job as an administrator – the respondent's indication on the Likert response scale ranging from 5- most important to 1- least important.
5. Age – the age (in years) of the respondent as self-reported by checking the appropriate age range on the demographic component of the author-developed questionnaire.
6. Post-secondary administrative experience – the respondent's years of experience as an administrator in a higher education institution as self-reported by checking

the appropriate range on the demographic component of the author-developed questionnaire.

7. Sex – whether the administrator is female or male as self-reported on the demographic component of the author-developed questionnaire.

Significance of the Study

Program review through needs assessment, though not the sole method of evaluation, is a trusted way of evaluating the effectiveness of a program of study (Diamond, 1998; McDade, 1994). Evaluating the programs of study at Marshall/WVU and Ohio University using the author-developed Administrative Competencies Questionnaire may assist administrators of these higher education institutions as they consider changes in the curricula that more adequately address the contemporary needs of the higher education administration graduates who find themselves in administrative positions.

Presidents may use the results of the study to inform the development of new strategic plans for their institutions or to encourage higher education administration programs to adopt a more progressive stance. Chief financial officers may consult the results of this study to determine levels of support to be allocated higher education administration departments in an effort to develop exemplary programs, and chief academic officers may find assistance in determining potential avenues of faculty development to assist the faculty in addressing new competencies. Academic deans may apply the resultant knowledge as curricula are revised to address the competencies, and academic department chairs may find the gathered knowledge useful in supporting

faculty members in constructing personal professional development plans to acquire the knowledge necessary to work with the competencies. Faculty members may use the results to shape the ongoing questioning of their instructional strategies and methods, and to question whether these methods are serving the mission of their programs and institution by providing higher education administration students access to the competencies necessary to adequately function as administrators in the higher education milieu.

Colleges and universities now find themselves in a challenging economic situation. Administrators are expected to do more with less while still protecting the credibility of their programs. Programs of study are critically examined by consumers of higher education as shrinking higher education budgets impose higher tuition on students and their families. Intra-institutional scrutiny is exhaustive as university presidents and deans search for inadequate programs that can be eliminated in order to delegate their funds toward more productive departments. Administrators, in their capacity as instructional leaders, must therefore make certain that the programs they oversee provide sufficient contemporary knowledge to enhance the competence of their graduates.

Limitations of the Study

1. Data in this study are from graduates of the Marshall University Graduate School/ WVU Cooperative Doctoral Program, the WVU residential program and the Ohio University program of study in Higher Education Administration only. The results may therefore not generalize to graduates of other institutions (Kerlinger & Lee, 2000).

2. Data in this study are quantitative in nature, confining the respondent to specific choices. A qualitative component might lend itself to more complete opinions.
3. The survey proceeds from a normative assumption that the competencies presented in the questionnaire are representative of the curricula presented in most higher education administration programs, and the abilities required to be competent as a higher education administrator.
4. The validity of the author-developed survey presents a limitation on the results of the study.
5. The study employs a self-reported questionnaire survey and is limited by the accuracy of the participants' responses (Kerlinger & Lee, 2000).
6. Data in this study are collected using a single instrument for each variable (Kerlinger & Lee, 2000).

CHAPTER 2

Introduction

Higher education in the United States has historically been required to adapt and often reinvent itself to accommodate the changing nature of society. Colleges and universities have grown and become more complex as the nation itself has evolved and become more complicated. According to Haynes (1991) the increased complexity of the higher education climate in general and colleges and universities in particular necessitates competencies in administrators commensurate with the elevated level of complexity. Since the role of higher education has traditionally been to serve society by furnishing trained leadership for communities, businesses and education itself (Vesey, 1965), the task of adjusting training programs in administration falls to higher education as well.

Since change has been the one immutable characteristic of higher education over the past three hundred years, it is logical to surmise that administrative leadership training programs might, themselves, be distinguished by change as well. Leadership training, however, lagged behind the needs of the profession in a 1983 study by Crawford and, according to Haynes (1991), higher education administration programs of study have for some time contained the same required courses with little variation, substantiating Crawford's 1983 findings. Haynes (1991) maintained that programs of study in higher education administration should conduct frequent needs assessments to assure that programs remain current and effective. This study proposes a needs assessment to determine whether or not the curriculum can be considered current or dated.

Administration

Administration is explained by Kerr (1972) in terms of a profession that arranges the events of an organization for the conduct of its affairs. That definition is expanded upon by Mayhew (1974) who finds that administration is a profession of leadership combined with the art of gracefully coping with constant change. Further clarification is provided by Robbins (1980) who posits that administration is a universal process through which activities are accomplished with and through the efforts of other people. Administrators in higher education range from the president of the institution at the top of the hierarchy and include deans, department chairs, registrars, librarians, and business staff (Vesey, 1965).

The Evolution of Administration

In order to gain perspective on the evolution of higher education administration as a career, it is helpful to look back at its beginnings. Soon after settling this new country, the Puritans felt a strong need to establish an institute of higher learning. John Eliot wrote an appeal to the General Court in England as early as 1633 and instruction formally began at Harvard in 1638 (Hofstadter & Smith, 1961). In Europe, universities had been established by scholars; in America, communities felt compelled to create their own colleges to meet their specific needs of leadership development and to draw settlers to the area (Potts, 1989).

In those simpler times, the main mission of Harvard was to ensure that learned men were provided to lead the nation, the church and the businesses of the colony. Brubacher (1958) holds that the church wanted a "literate, college-trained clergy" and society wanted "educated, orthodox laymen" for leaders. In a fund-raising pamphlet

published in 1752, the College of New Jersey (later known as Princeton) stated "nothing has a more direct tendency to advance the happiness and glory of a community than the founding of public schools and seminaries of learning for the education of youth and adorning their minds with useful knowledge and virtue" (Hofstadter & Smith, 1961, p. 91). According to Brubacher and Rudy (1958), however, probably the most important factor leading to the establishment of the colonial colleges was the desire "for a literate, college-trained clergy" (p. 6).

Charged with training an educated clergy, the early colleges required leadership well versed in the ways of the church. Administrators of the early colleges, then, were members of the clergy themselves. Besides having to be men of exceptionally good character, the early administrators had to be able to attend to all the business affairs of the institution. Kerr (1972) states that the first universities were mostly places to live and the responsibilities of administrators consisted mainly of housekeeping. Duties ranged from registering and disciplining students to overseeing every aspect of the affairs of the faculty, making sure they were not absent from class and assuring that they were teaching adequately (Hofstadter & Smith, 1968). The president of the college was its only administrator and garnered great respect as such. College laws drafted by Yale College in 1745 state that a student could be stripped of liberties, admonished or fined merely for behaving obstinately or contemptuously toward the president or one of the faculty (Hofstadter & Smith, 1968). The president had full executive and legislative powers within the early college.

By the middle of the eighteenth century, however, colleges had grown and matured so that the job of administrator was too large for just one person. The charter of

the College of New Jersey was drafted to grant power to the Trustees in order that they might appoint tutors and professors to assist the president in the education and governance of the students (Hofstadter & Smith, 1968). The first administrative positions to be added to aid the president in carrying out his duties were that of a librarian and a registrar (Brubacher & Rudy, 1958).

It was about the middle of the 18th century that curriculum changes were introduced to meet the needs of the urban businessman (Vesey, 1965) as well as the traditional professions. Courses in sciences such as mineralogy and navigation and others in commerce and government were added, reflecting the needs of society. As the young country grew and its interests matured, higher education institutions responded to the needs of communities by offering instruction in areas that would enhance the lives and careers of citizens. The curriculum changes were not entirely driven by the needs of the community, however. Scientific knowledge was exploding in the 1860s and European institutions of higher learning were offering a more varied and exciting curriculum. American universities had to change in order to be competitive (Vesey, 1965).

Stages of Administration

The first stage of administration spanned from Harvard's beginning in 1636 to just after the Civil War. In this rural and commercial culture, the church dominated the board with a minister as its president. Institutions were small and classes were taught by recitation. Administrators served in *loco parentis* and were essentially the deans of students (Kerr, 1972).

Although there were strong supporters to maintain clerical control of colleges, like Noah Porter of Yale, others held that the clergy was not sufficiently knowledgeable in the sciences to lead the new institutions (Brubacher & Rudy, 1958). More important than knowledge in the sciences, however, was the growth of the college endowment and the increased number of students matriculating. The large sums of endowment and tuition money demanded an administrator who was more experienced in business management (Brubacher & Rudy, 1958). Clerics as college presidents were seen with decreasing frequency in favor of the seasoned businessman (Brubacher & Rudy, 1958).

Beginning after the Civil War and continuing until the latter part of the nineteenth century, the age of the "presidential giant" was the second stage of college administration. Men like Andrew White at Cornell, James B. Angell at Michigan, Charles W. Elliott at Harvard and Daniel C. Gillman at Johns-Hopkins transformed the colleges and universities of a now industrialized nation. They were autocratic leaders, powerful enough to effect transformations in their institutions such as the change from the strict classic curriculum to a curriculum that included electives. At this time, the office of chancellor was added above the president; vice presidents were added below the office of the president to give the president more time to oversee educational policy. According to Vesey (1965), administration came to be known in the early 1890s as the "president, deans, business staff and often a number of senior professors who regularly supported the president's wishes" (p. 305). By the early 1900s, college administration had taken on much of its present form. In 1900, C.F. Thwing authored the first book dedicated to the topic and titled *College Administration* (Vesey, 1965).

In the 1930s, the conception of administration began to change reflecting the impact of the Great Depression on business and scientific management principles (Murphy, 1995). Human relations became more of a focal point leading to a view that workers are very much human beings and far from just cogs in one great wheel (Murphy, 1995). Still, administration was neither theoretically nor conceptually grounded (Murphy, 1995).

As colleges grew in enrollment and as courses and programs of study were added, numbers of faculty also grew, differentiated, and organized into departments (Brubacher & Rudy, 1958). Kerr refers to this third stage, extending from after World War I to just after World War II, as the age of the faculty (1972). Faculty gained greater authority, academic freedom was enhanced, and the academic senate was formed (Kerr, 1972). Academic committees were established to address discipline, admissions, and athletics. Committee duties increased, taking up more and more time of faculty members. In an effort to release faculty members from these administrative duties so that they could devote their time to the real job of teaching, the offices of deans, department heads, director of admissions and director of athletics were formed (Brubacher & Rudy, 1958). Administrators of this time assumed a lower profile, existing foremost as servants of the faculty (Kerr, 1972).

After World War II, the knowledge base in science experienced explosive growth. The newly world-dominant country signified its regard for higher education by substantially increasing federal funding for science research. Former teacher's colleges became comprehensive colleges and hundreds of community colleges were founded

(Kerr, 1972). The administrator of this age was an executor of growth (Kerr, 1972) with the primary responsibility of planning new projects for the future.

Since 1970, higher education has been marked by even greater change (Kerr, 1972). Governance of colleges and universities by those within the institutions diminished as governance became more publicly controlled and influenced by student movements, decreased federal and state funding, and a corporate world concerned that college and university graduates do not have the skills necessary to survive in the business world and enhance a corporation (Evers, Rush & Berdrow, 1998; Ginsberg, 1993; Kerr, 1972; Leslie & Fretwell, 1996).

Pappas (1993) posits that a shared, collaborative leadership model is the only way for colleges and universities to survive the 21st century. Effective leaders of this era must have leadership training (Mayhew, 1974) that enables them to empower others to share the burdens of leadership (Pappas, 1993), and an inclusive style that encourages people to achieve and succeed by example (Bennis & Nanus, 1985). The collaborative leader ensures that there is institution-wide understanding of the mission and purpose and a strategic plan with measurable goals (Pappas, 1993). This type of leader, according to Westerman (1994), functions best when people barely know that he or she exists.

Leadership Theory

Leadership is defined by Northouse (1997) as "a process by which an individual influences others to reach a common goal" (p.3). While the focus of administration was on the central operating theory of an institution as a whole, leadership has historically focused on the individual leader and his or her traits or style of leading.

The Trait or Great Man Theory

The central premise of the great man theory is that leaders are born, not made. The theory's emphasis is specifically on the personality characteristics of the leader with the belief that selecting the right person will increase the organization's effectiveness (Bass, 1990). Stogdill (1948) identified several specific traits that appeared to contribute to one's potential to be a strong leader: (a) intelligence; (b) alertness; (c) insight; (d) responsibility; (e) initiative; (f) persistence; (g) self-confidence; and (h) sociability. There is no consideration for the characteristics or feelings of the followers, nor is consideration given to varying situations. Thomas Carlyle was one of the first proponents of the great man theory, maintaining that history is essentially a result of individual great men and their impact on society (Northouse, 1997).

Criticisms of this theory include its failure to determine a definitive list of leadership traits and to take into account the extent to which specific situations can influence the leadership role (Northouse, 1997). Additionally, research does not seem to consider traits in relation to outcomes, and the theory is not particularly useful for training and development since it is difficult to change traits and a person's darker side is often ignored (Northouse, 1997). Hitler, for instance, exhibited all the traits outlined previously, but proved to be a disastrous leader with regard to global society (Northouse, 1997).

For training and organizational purposes, the trait or great man theory is not particularly useful, especially since it cannot be taught (a person cannot theoretically be

given new traits) and does not consider any variation with regard to employees. Situational theory, the next to be considered, begins to factor employees into the leadership equation.

Situational Theory

The situational approach focuses on the type of leadership as dictated by a particular situation (Northouse, 1997). The situational principle holds that the leader is a product of the times, or what Heifetz (1994) would term a demographic fluke. Situational theory might speculate that Thomas Jefferson or Benjamin Franklin would not have been exceptional leaders were it not for the times in which they found themselves, i.e., ordinary men in extraordinary times (Heifetz, 1994).

There exists a directive-supportive continuum in situational theory, what Blanchard and Hersey (1996) described as moving from very authoritarian to very democratic, with the leader adapting to the developmental level of the employee. The main focus of this theory is that increasing the effectiveness of the leader is enhanced by learning to provide for a subordinate the most appropriate combinations and levels of direction and support (Northouse, 1997).

Leadership, however, is a very complex issue. As the environment in which a leader finds herself /himself becomes more complex, the theory that worked in simpler times may not be as effective or appropriate in more difficult times. Leadership theory, therefore, continues to evolve, offering new suggestions and blending theories in an attempt to find more effective methods. The following theory is a blending of great man/ trait theory and situational theory.

Contingency Theory

In an attempt to match leaders with situations, contingency theory shifts its focus slightly away from the leader and looks more at understanding the situation in which leaders finds themselves (Northouse, 1997). Contingency theory additionally assesses leader-member relations, the structure of the task to be completed, and the amount of authority possessed by the leader (Northouse, 1997). These three factors determine how favorable an organizational situation exists, holding that certain styles will be appropriate for certain situations (Northouse, 1997). Two approaches are considered to be relevant in improving leader effectiveness: (a) changing the leader or (b) changing the situation.

Fiedler (1967) studied the styles of leaders in different contexts, including the military context. He attempted to determine a leader's effectiveness in relationship to the leader's style and the work situation (Fiedler, 1967). In the course of his research, Fiedler developed the Least Preferred Co-worker (LPC) Scale to measure whether a leader was motivated according to relationships or tasks. Conversely, Fielder (1967) also held that the "becoming a leader is in large part a matter of such sociological, economic, or political factors as age, financial status, being at the right place at the right time, or being encouraged by happenstance" (p. 11).

The consideration of contingency theory, thus, relates primarily to the situation in which a leader is involved and her/his response(s) to it. The next theory, transactional leadership, broadens the emphasis to include the patterns of interaction between leader and follower (Austin, 1989).

Transactional Leadership

In transactional leadership, relationships are based on a bartering or exchange model in which subordinates or followers contribute their efforts to the business or educational cause in exchange for rewards or support from the leader (Fields & Herold, 1997). Two factors are significant in this theory: (a) contingent reward, and (b) management by exception (Singer & Singer, 1990). The transactional leader exchanges things perceived as valuable with followers, a reward contingent upon the advancement of her/his own agenda as well as that of her/his followers (Kuhnert, 1994). Kuhnert and Lewis (1987) posit that transactional leadership is effective because followers know it is in their best interest to do what the leader wants. In management-by-exception, the leader remains quiet and takes no action as long as followers are meeting the prescribed performance standards (Madzar, 2001); something has to go wrong for the leader to take action and become involved with followers (Austin, 1989). The transactional leader gains cooperation by offering rewards for compliance or punishment for non-compliance.

Transactional leadership theory is best suited to a structured, mechanistic environment in which followers are expected to conform without innovating (Bass, 1995; Singer & Singer, 1990). In some situations, such as a military operation or an emergency, there may not be time for questions. Compliance without questioning might be a matter of safety, making a transactional style of leadership more appropriate. Most other work environments function more efficiently when employees are well motivated to do their jobs well. To that end, path-goal theory was developed, blending situational theory with transactional theory (Northouse, 1997).

Path-goal Theory

The path-goal theory concerns itself primarily with methods leaders use to motivate subordinates on a path toward completing the goals of the organization (Northouse, 1997). Derived from Vroom's (1964) expectancy theory, this theory suggests that subordinates will be motivated if they believe they are capable of doing their work and that their efforts will be rewarded.

House and Mitchell (1974) suggested that motivation is generated by leaders when the number and types of rewards are increased. Their research also indicated that workers would be motivated if the path to goal completion was clarified and facilitated by a leader (House & Mitchell, 1974). Depending on the situation, a leader may be directive, supportive, participative or achievement-oriented in order to help workers attain a goal (House & Mitchell, 1974), adapting their styles to fit the situation or the motivational needs of their subordinates (Northouse, 1997). In an unsatisfying or frustrating work situation for subordinates, the leader may appropriately choose a supportive style, while in a more ambiguous situation, a participative leadership style might be more useful (Northouse, 1997).

Path-goal theory lends understanding to how leadership behaviors affect the work satisfaction of subordinates, and explains how the task and the characteristics of subordinates affect the connection between the style of leadership and the performance of workers (Northouse, 1997). Path-goal theory further emphasizes the fact that leaders assume a major role in helping subordinates reach goals and become satisfied with their work (Northouse, 1997).

The previous theories have had the leader's behavior and attitudes as their primary focus; employees were factored into the equation only as catalysts who impacted the leader's behavior in some way. Transformational leadership withdraws from the "leader only" focus and adopts a more inclusive relationship between leaders and followers that, eventually, elevates followers to co-leaders.

Transformational Leadership

According to Northouse (1997), transformational leadership "refers to the process whereby an individual engages with others and creates a connection that raises the level of motivation and morality of both the leader and the follower" (p. 131). Up to this point, whether the employee was included in the leadership equation or not, the focus has been on the competent execution of a task. Having begun with the great man theory, in which the focus was almost entirely placed on the leader and his or her qualities, transformational leadership appears to be much further along the theoretical spectrum where the focal point is shared jointly by the leader and the followers and stresses the enhancement of relationships within the work environment. Both leaders and followers are considered to be enhanced by the relationships formed and can rise out of an organizational situation with a stronger set of moral values (Northouse, 1997).

Transformational leadership consists of four components: (a) idealized influence; (b) inspirational motivation; (c) intellectual stimulation; and (d) individualized consideration (Howell & Avolio, 1992; Zacharatos, Barling, & Kelloway, 2000). Idealized influence takes place when leaders build respect and trust by being fair and doing what is right instead of whatever gets the task accomplished faster (Zacharatos, et al, 2000). The leader's vision sets high standards for emulation, and there is a sense of

universal brotherhood with no "we-they" distinction between leaders and followers (Bass & Steidlmeier, 1999; Pielstick, 1998). Ethical policies and procedures guide all transactions (Bass & Steidlmeier, 1999).

Inspirational motivation is accomplished by raising followers' awareness of the mission and raising their expectations of what can be achieved (Zacharatos, et al., 2000). Followers are provided challenges and meaning for holding shared goals and participating in team undertakings (Howell & Avolio, 1992; Pielstick, 1998). Transformational leaders lead by example, with honesty and integrity, and make special efforts to increase the awareness of what is right, good, important and beautiful (Howell & Avolio, 1992; Pielstick, 1998).

Intellectual stimulation is employed when followers are encouraged to view old problems from different, more creative perspectives (Zacharatos, et al., 2000). The leader-follower relationship is open and dynamic, enabling followers to question assumptions and generate creative solutions to problems (Howell & Avolio, 1992; Pielstick, 1998). Transformational leaders do not withhold the release of important information, and allow followers to take credit for their own work and ideas while being willing to share the responsibility for the failure of any effort (Howell & Avolio, 1992). Transformational leaders persuade others to follow based on the merits of a specific issue and the relevance of the issue to the followers' benefit and satisfaction (Howell & Avolio, 1992). Leaders who employ transformational theory are willing to show employees new ways of looking at old problems while teaching them to see difficulties as problems to be solved by employing rational solutions (Bass, 1990). Instead of the concept of management-by-exception espoused by transactional leaders, transformational

leaders often practice management-by-walking-around, a practice that finds them interacting with followers and forming close relationships (Bass, 1990; Pielstick, 1998).

Individualized consideration has altruism as the primary concern, paying attention to each worker in consideration of her/his specific needs and abilities (Bass, 1985; Zacharatos, et al., 2000). Transformational leaders treat each follower as an individual, providing coaching, mentoring and growth opportunities to enable the development of each follower into a potential leader, thus ensuring the survival of the institution (Howell & Avolio, 1992; Pielstick, 1998). They nurture followers into attaining the highest level of development possible by encouraging scholarship and life-long learning (Pielstick, 1998). They do not seek blind obedience, but welcome and encourage independence of followers and the communication of new ideas that might benefit the organization (Howell & Avolio, 1992). They typically show a willingness to delegate and channel their leadership power into the service of others (Bass, 1990; Howell & Avolio, 1992).

Bennis and Nanus (1985) identify four strategies employed by transformational leaders as they deal with followers. Transformational leaders (a) have a clear vision of what they want their organization to become; (b) communicate their vision by bringing the subject to life; (c) build trust by exhibiting knowledge of what is right and necessary; and (d) base their actions on their strengths rather than their weaknesses. Followers are empowered, nurtured and raised to the highest possible level of personal accomplishment (Northouse, 1997).

It is this type of transformational leader who can accomplish the complex and intricate duties of a higher education administrator in the 21st century. Not only is the higher education administrator of this century required to analyze and plan for an

institution compromised by dwindling budgets, but he or she must also call upon well-developed skills of team building, mediation, delegation, and diplomatic staff evaluation among other personal and organizational competencies. In the words of Bass (1990), "Problems, rapid changes, and uncertainties call for a flexible organization with determined leaders who can inspire employees to participate enthusiastically in team efforts and share in organizational goals" (p. 10).

In previous years when a great man or situational leadership style was appropriate, the program of study in higher education administration did not, perhaps, have to devote time to teaching aspiring administrators how to lead and how to manage a complex staff. Knowledge of budgets and higher education organization may have been adequate. The current era, however, demands that leaders know how to project themselves as positive symbols of the institutions for which they stand in order to form partnerships and develop sources of outside funding (Gardner, 1990). Today leaders must also deal with much larger staffs and numerous problems that arise from attempting to do more with less. While there are other fairly recently developed theories (e.g. Greenleaf's servant and Heifetz's adaptive) that incorporate followers into the leadership equation, the well-developed beliefs and methods of transformational leadership may be especially applicable under these circumstances, possibly justifying changes in the preservice curriculum that would address instruction in this theory.

The Higher Education Administration Program of Study

An Historical Perspective

The first course to be offered in the field of higher education was at Clark University in 1893 by G. Stanley Hall (Goodchild, 1991). During the school year from

1908-1909, the College of Education at the University of Minnesota offered *Organization of Higher Education* (Burnett, 1973). It was not until 1920 that the professional preparation for careers in higher education administration was formalized, however, specifically at the University of Chicago, Ohio State University and Teachers College, Columbia University (Burnett,1973).

As higher education institutions became more specialized, greater numbers of administrators and faculty were required. G. Stanley Hall housed his original program to study higher education in the psychology department of Clark University (Goodchild, 1991). In order to add intellectual substance to higher education doctoral programs, a variety of disciplines was drawn from, specifically the social and behavioral sciences, educational research, elementary and secondary educational administration, and student personnel administration (Davis et al., 1991).

Despite the availability of administrative preparation programs, administrators historically advanced through the faculty ranks (Crawford, 1983; Elbe, 1978; Goodchild & Fife, 1991; Moore, 1991) with the department chair serving as the most common doorway to an administrative position (McDade, 1991). Moore reports that in 1991 administrators were typically white males, with only 20 % of all administrators being female and eight percent minorities. Of all deans, 13.8 % were women. Academic scholarship has been the primary focus of the administrative position with management skills taking second place as a requirement for the job (Crawford, 1983). Townsend & Bassoppo-Moyo (1996) go so far as to say that few people have had any formalized training for the administrative role.

While on-the-job training does provide the knowledge and skills to function in the position of administrator, a larger picture of higher education as an institution is often lacking (Goodchild & Fife, 1991). It is this larger picture that the doctoral program of study in higher education administration seeks to provide. Townsend and Wiese (1991) state that the higher education doctorate is considered to be a passport to higher education administration in that the culture of American society supports and perpetuates credentialism, especially in higher education. Goodchild and Fife (1991), however, simply hold that formal training is necessary as higher education institutions become more organizationally complex and technologically sophisticated. Additionally, the greater scrutiny that higher education is subject to as a result of rising tuition and fees will require administrators who can balance accountability on one hand and academic freedom on the other (Goodchild & Fife, 1991).

The Current Program of Study

Current higher education doctoral programs number approximately 86, according to a survey of the website of the Association for the Study of Higher Education (ASHE) (http://www.ashe.missouri.edu/). This information may be skewed, however, by the failure of some schools to update their information. Educational associations that support the general field of higher education are numerous, some of which are listed in Appendix A.

Typically, two or three faculty members teach the majority of courses (Dressel & Mayhew, 1974) and there are no generally accepted or prescribed criteria for course offerings (M. Hemsley, personal correspondence, American Association for Higher Education, January 30, 2002). Rather course offerings vary according to the expertise and

the interests of the faculty (Fife, 1991). A core of courses is usually common to most programs of study, among them, higher education administration, finance of higher education, higher education law, governance and organizational policy, curriculum issues and current issues in higher education (Fife, 1991). The core courses of Marshall University and its peer institutions can be reviewed as presented in Appendix B and conform, for the most part, to that model.

The collaborative and contemplative administrator envisioned by Pappas (1993) and Mayhew (1974) requires a curriculum that addresses advanced skills in cooperation, empowering subordinates, delegation and entrepreneurial planning, yet the higher education administration curriculum of most institutions has not changed significantly to reflect the changing needs of a contemporary administrator. Instead of the requirements for administrative competencies' driving the curriculum, the most common device for curriculum change is the addition of courses based on changing faculty interests (Mayhew, 1974). Chamberlain, therefore, speculated in 1972 that the easiest way to change the curriculum might be to change the faculty, for curriculum seems to be in the minds of the faculty, not in the catalog.

An even stronger impression is held by Harris (1987), who argues that college curricula have not been designed as instructional systems, but instead represent an "amalgamation of the educational philosophies of past and present faculties" (p. 73). The current rate of knowledge growth is estimated to have a half-life of approximately four years (Evers et al., 1998). That is to say that by the fourth year of study, the knowledge gained in the first year may already be irrelevant (Evers et al., 1998). An institution that

desires to remain current in the knowledge that it dispenses might therefore consider some form of ongoing self-review.

Examining the Curriculum

Designing an instructional system cannot be accomplished by continually increasing the volume of the curriculum, else students would not be able to finish a program of study in a time period of two or three years (Stark et al., 1986). The traditional way of changing the curriculum is for experts like faculty and accrediting bodies to decide what students need (Ruben, 1995). Faculty, however, may not be as acutely aware of the needs of an administrator as is an administrator engaged in current practice. Haynes (1991) identifies the two most common methods of identifying content in current practice, the eclectic approach and the empirical-eclectic approach.

The eclectic approach's only rationale or apparent rationale for course selection is the interest of the faculty (Fife, 1991; Haynes, 1991). This approach appears to be the most dominant and consists of faculty's reviewing other university bulletins and selecting courses that commonly appear or that have personal appeal (Haynes, 1991).

Using the empirical-eclectic approach, program developers examine program weaknesses and strengths by assessing the opinions of faculty, students, and alumni (Mayhew, 1974). A list of courses is then developed and ranked according to the groups' opinions of their perceived importance (Haynes, 1991; Mayhew, 1974). Administrators and other experts are then consulted as a perceptual check on the opinions of faculty, students and alumni (Haynes, 1991; Mayhew, 1974). Mayhew (1974) disagrees with this approach since, in his opinion, it still appears to somewhat depend on the unique interests of faculty and the opinions of students who do not yet have experience in the field.

It is likely more reasonable to follow a plan of action that includes specifying those competencies and attitudes as identified by practitioners and to attempt to develop them in a program of study (Diamond, 1998; Stark et al., 1986). The goal is to close the gap between what students learn at the preservice stage and what they need to know and do in practice (Evers et al., 1998). Therefore, a more rational way of assessing the requirements of a program of study may be to conduct a needs assessment (Carnegie Foundation, 1977; Diamond, 1998; McDade, 1994; Ruben, 1995).

Needs Assessment

The purpose of establishing a program of study is to increase the probability that what is essential to functioning competently in the job for which the student is being educated is accessible through the program of study (Kaufman & English, 1979). This becomes even more important in this heightened era of accountability. Needs assessment can be a meaningful planning process to aid an institution in being reasonably accountable for the ends of a program as well as for the means, and is the first step in any functional, useful and planned change(Kaufmann & English, 1979).

Kaufman and English (1979) define needs assessment as "a formal process which determines the gaps between current outputs or outcomes and required or desired outcomes or outputs" (p. 8). They elaborate on this definition by noting that a needs assessment is "the determination of documentable and important gaps between current outcomes and desired outcomes and the placing of those gaps in priority order for closure" (Kaufman & English, 1979, p. 24). Therefore, if a program of study is perhaps not affording students the skills and abilities required to be competent in their positions, a

gap exists between what that program offers and what it might include to be more effective. To continue to be an effective program of study, as posited by Evers, et al. (1978), an institution must consider establishing an ongoing form of program review, part of which may be a needs assessment.

A needs assessment is central to determining the correct problems for resolution as the establishment of needs or gaps gives direction and definition to curricular reform (Kaufman & English, 1979). As Diamond (1998) states, the primary justification for the addition of any new course is to fill a gap in the current list of offerings. It is similar to an employee job description, the absence of which makes it difficult for an employee to determine whether or not the job is being accomplished appropriately. In the context of curriculum reform, a poorly defined result not only fails to indicate of the direction in which to proceed, but offers no way of knowing when reform has been accomplished (Kaufman & English, 1979). Some form of data collection, therefore, should precede the consideration of reform. Diamond (1998) describes a curriculum assessment in several steps. Assessing a program requires a statement of goals. The statement of goals subsequently requires an analysis of needs that then facilitates the design of an assessment protocol (Diamond, 1998). A first step in attempting to craft a statement of goals might be to review the literature for administrative and leadership proficiencies. The following section represents the results of a literature review specifically seeking competencies that an administrator of the 21st century might find useful as he or she navigates the issues of a complex institution.

Administrative Competencies

The contemporary higher education administrator deals with an institution that is becoming increasingly complex and technologically sophisticated (Goodchild & Fife, 1991). An additional concern weighing heavily on present day administrators is the issue of accountability. Dill and Massey (1996) stress that the content and credibility of the degrees awarded by an institution are a shared responsibility of the faculty and administration. Given these new demands and the complexity of the job, ascending through the ranks from professor and scholar to an administrative position is inadequate preparation for directing a complicated organization (Dodds, 1962). Higher education administration programs of study, then, may be more important than ever before to make sure students of higher education administration are provided with access to instruction in the competencies necessary to function effectively in the current complex higher education environment.

A review of the current leadership and management literature generates an array of competencies that are possessed by an effective administrator, some of which draws a distinction between leading and managing. Gardner (1990), for example, observes that while many leadership and management duties overlap, management can be viewed as those duties that keep a system functioning on a day-to-day basis. These duties include organizing, agenda setting, some decision making, and visualizing the path to a goal that has been set. Management duties are further expanded by Velsor and Fleenor to include encouraging participation, facilitating work, control of details, delegation, building teams and managing time.

Leadership, as conceptualized by Gardner (1990), includes tasks that require vision and the ability to be seen as a spokesperson and a symbol for the organization. These abilities include envisioning goals, describing problems and solutions, standing as a symbol of institutional unity, representing the group in political and community circles and acting as a force of institutional renewal.

It is not the purpose of this study to enter into the leadership versus management debate; both leadership and management skills are important for an effective administrator as are skills in the curriculum and human relations categories. For the sake of convenience and order, competencies on the questionnaire are placed into the following four categories: (a) management, (b) leadership, (c) curriculum, and (d) human relations.

Management

In keeping with Gardner's (1990) view, this section deals with those competencies that keep a system functioning on a day-to-day basis such as an ability to assess and manage institutional resources encompasses allocating the skills of other staff members and implementing innovations through the staff (Mayhew, 1974). By budgeting the time and money resources available, an administrator is able to make the best use of those resources by effective management (Gulick & Urwick, 1936; Lahti, 1973).

College leaders must be able to gather, analyze, and interpret data for the purpose of making informed decisions (Argyris & Cyert, 1980; Bennis & Nanus, 1985; Gulick & Urwick, 1936; Haynes, 1991; Mayhew, 1974). Mayhew (1974) writes of the need for an administrator to be able engage in the task of information processing in an effort to

identify problems and find their solutions. Argyris and Cyert (1980) describe using knowledge to discover a problem, invent the solution, produce the solution and evaluate its progress. They further encourage leaders to learn the skill of encouraging the inquiry of others and deciding on a course of action based on this informed council of a trusted staff.

An ability to create a governance structure for the institution requires knowledge and an understanding of the university system and its rules (Katz & Kahn, 1966). This critical structuring of the university hierarchy (Dodds, 1962) can form a collaborative administrative model that in the opinion of Pappas (1993) is the only way for institutions to survive the 21st century. Leslie and Fretwell (1996) add that the administrative team must be effective inside and outside the institution to help the administrator build collaborative relationships within the business and political fields.

Making decisions when part of a group process involves an ability to build consensus (Dodds, 1962; Leslie & Fretwell, 1996) and being able to bring a group into agreement regarding a course of action affords a leader the sense of security that the decision might be a wiser one given the input of more than one person (Dodds, 1962). As rapidly as some college and university issues surface, Leslie and Fretwell (1996) advise that an ability to build consensus quickly will serve a leader well.

Administration is enhanced by an ability to mediate and resolve conflict (Argyris & Cyert, 1980; Crawford, 1983; Goleman, 1995; Lahti; 1973; Mayhew, 1974), a phenomenon which is stressful and tries the patience of even the best negotiator. Crawford (1983) stresses the importance of an administrator's stability and ability to stay objective during conflict, thereby effectively dealing with frustration without hostility or

defensiveness. Goleman (1995) writes of handling difficult people and tense situations with diplomacy and tact, stressing the importance of being able to spot potential conflict so that disagreements can be exposed and a process of de-escalation can be initiated. He further elaborates by encouraging leaders to view the airing of grievances as helpful critiques which help create an atmosphere where diversity of thought and opinion is valued (Goleman, 1995).

Given their multiple duties, administrators must have the ability to delegate without micromanaging (Dodds, 1962; Gallagher, 1994; Lahti, 1973; Leslie & Fretwell, 1996), and delegation should be made to competent people whom the administrator can trust to try new methods (Leslie & Fretwell, 1996). As with other tasks, the administrator should set realistic objectives for the delegated task (Lahti, 1973), and, once delegated, the task should remain the responsibility of the subordinate whose decisions the administrator should respect and uphold (Dodds, 1962; Lahti, 1973; Leslie & Fretwell, 1996).

An ability to build teams and facilitate cooperation helps the administrator nurture harmony within the institution while distributing the administrative load (Argyris & Cyert, 1980; Evers et al., 1998; Gallagher, 1994; Goleman, 1995; Goleman, 1998; Katz & Kahn, 1966; Leslie & Fretwell, 1996; Robbins, 1980; Stark et al., 1986; Townsend & Bassoppo-Moyo, 1997). A good management team creates an environment in which administrators, faculty, trustees and students can work together to constructively solve problems (Gallagher, 1994). Teams promote loyalty (Katz & Kahn, 1966), build rapport, keep others in the loop and foster a sense of *esprit de corps* (Goleman, 1998). Teams create more of an internal harmony (Goleman, 1995) to guard against what Argyris and

Cyert (1980) describe as an institution in trouble (i.e., one in which most decisions are unilateral).

Finally, time is any administrator's most precious commodity, making personal time management extremely important (Elbe, 1978; Evers et al., 1998; Lahti, 1973; Townsend & Bassoppo-Moyo, 1997). Elbe (1978) therefore recommends that an administrator embrace detail without being overcome by it and wasting precious time.

Leadership

Referring back to Gardner's (1990) view of leadership, the leadership section addresses competencies that enable an administrator to be a spokesperson, visionary and representative for the institution. Possibly foremost in this category is the ability to communicate, specifically speaking and writing in a clear and concise manner (Bennis, 1985; Crawford, 1983; Drucker, 1974; Gulick & Urwick, 1936; Haynes, 1991). Crawford (1983) writes of the necessity for a leader to be able to clearly express his or her thoughts, and Bennis (1985) writes more specifically of being able to create the focus and clarity necessary to reach a common goal. Without the articulation of the goal and a definition of the deeper meaning of the goal in mind, an organization has no clear compass point to provide direction (Bennis, 1985). In the absence of this type of clarity, leadership is handicapped.

In any complex institution, problems inevitably arise. An effective administrator must have the ability to identify problems and judge whether they can or need to be solved (Kerr, 1972; Mayhew, 1974). It is often the case that discovering and/or reporting a problem can have a negative consequence. Therefore creating an environment that is safe enough for other staff members to bring problems to the attention of the

administrator (Argyris & Cyert, 1980) enhances the effectiveness of the administrator and enables him or her to remove any barriers to positive change that may be in place (Goleman, 1998; Lahti, 1973).

It is the responsibility of the administrator to first have a clear vision of new personal and group goals in order to communicate those goals to the institution (Bennis & Nanus, 1985). The effective administrator must be able to set goals that benefit the organization as a whole (Goleman, 1998), and that can be measured by set objectives (Drucker, 1974; Pappas, 1993; Robbins, 1980). The goals should be clear and manageable, yet challenging enough that staff members acquire a sense of accomplishment (Goleman, 1998).

A leader's effectiveness will be enhanced by an ability to consider diverse points of view and to be open to new ideas (Bennis & Nanus, 1985; Crawford, 1983; Dodds, 1962; Ginsberg, 1993; Goleman, 1995; Goleman, 1998; Leslie & Fretwell; Robbins, 1980; Westerman, 1994). Sharing leadership with constituents is one of the central concepts of transformational leadership when it speaks to the process of followers and leaders joining in the transformational process (Northouse, 1997). Goleman writes of leaders who excel, mentioning the ability to see things from another's perspective as a key quality (1995). In a later publication, Goleman (1998) cites a strong leader's ability to be innovative and adaptable by seeking out fresh ideas from various sources in an effort to generate new ideas. Leslie and Fretwell's (1996) writing about leading institutions in these difficult times stresses the importance of cultivating the skill of listening and exchanging ideas, an opinion that is echoed by Robbins (1980) and Stark, Lowther and Hagerty, (1986). Bennis and Nanus (1985) describe good leaders as great

"askers" who spend time consulting with advisors and experts, and Westerman (1994) adds that inspiring leaders recognize the importance of input from constituents who are more in touch with the outside world.

The ability to design a strategic plan is critical to the development of any institution or organization (Argyris & Cyert, 1980; Bennis & Nanus, 1985; Cleveland, 1977; Denton & Wertz, 1993; Drucker, 1974; Evers et al., 1998; Kerr, 1972; Lahti, 1973;Murrell & Davis, 1991; Pappas, 1993; Robbins, 1980; Ruben, 1995). Bennis and Nanus (1985) share a Chinese proverb that warns, "If we don't change our direction, we're likely to end up where we're headed" (p. 48). Setting objectives that are clear and concise (Argyris & Cyert, 1980; Cleveland, 1977; Drucker, 1974; Kerr, 1972; Ruben, 1995) gives an organization a sense of purpose and direction. Without long range planning and specific, measurable goals (Lahti, 1973; Pappas, 1993; Robbins, 1980), an organization is left open to the insecurities and resentment of workers frustrated by the possibility that unclear or even unknown goals may not be met (Denton & Wertz, 1993). Developing a new vision for the future (Bennis & Nanus, 1985; Evers et al., 1998) ensures the relevance of a program as it keeps pace with current developments (Murrell & Davis, 1991).

As state and federal funds decrease, it may become increasingly important to form partnerships with the business world. Academic leaders will have to be skilled at forming and nurturing these partnerships to keep institutions viable (Meister, 2001). Goleman (1998) and Mayhew (1974) encourage leaders to cultivate and maintain extensive networks, seeking out relationships that are mutually beneficial. Further, Mayhew reminds administrators that often their jobs involve mediating between the

institution and the broader society. A leader who is searching for business opportunities (Robbins, 1980) may recognize prospects in the corporate realm of training. Colleges and universities have the educational expertise that some businesses may lack. Forming corporate-university partnerships helps universities make up for reduced state and federal funding as well as creating corporate good will (Meister, 2001).

Often, a leader has to be a diplomat and politician to serve the best interests of the institution (Vesey, 1965). Colleges and universities are subject to legal and cultural changes within their environments (Katz & Kahn, 1966), making it necessary for the leaders of such institutions to stay aware of influences like court decisions, federal regulations, the rulings of state and local committees, and state and federal tax laws (Argyris & Cyert, 1980). It is advisable to maintain communication webs (Goleman, 1995) through which a leader can keep a finger on the political pulse and be alert for any changes that may affect the institution (Lahti, 1973), especially since higher education lacks the political constituencies that elementary and secondary education have in place (Goodchild, 1991). As institutions face rising costs to comply with government regulations, in addition to being subjected to increased government scrutiny in the form of audits (Ginsberg, 1993), a college or university leader can serve as an advocate for the institution in political arenas (Dilly, 1972) by keeping the lines of communication open and remaining alert to the interests of public policy makers (Leslie & Fretwell, 1996).

Curriculum

Administrators must be able to plan and implement new academic activities (Diamond, 1998; Mayhew, 1974; Lewis, 1994; McNeil, 1981; Townsend & Bassoppo-Moyo, 1997), and curriculum should be constantly under review and constantly evolving

if the vigor and viability of an institution are to be preserved (Mayhew, 1974; Lewis, 1994). Implementing curriculum change, however, should be approached cautiously since change affects people so differently (McNeil, 1981). Pappas (1993) urges that the administrator have criteria in place to facilitate addition or removal of a program so that change occurs in a more prescribed and predictable fashion.

Before beginning a curriculum project, an administrator needs to know that the institution itself must be relatively stable in important areas such as faculty numbers and budget. He or she must additionally attempt to involve as many faculty members as possible in the planning stages so that all will feel some ownership of the project (Diamond, 1998). McNeil (1981) suggests that implementing curriculum changes can be made smoother by scheduling numerous staff development and support activities to get faculty over the unsettling feeling of change itself. Without knowing these strategies, an administrator's efforts at curriculum change may fail.

Boyer (1991) emphasizes that serious study is the foundation for good teaching; hence, an administrator needs an ability to relate research to teaching in order to model the skill for the rest of the faculty. Research and good teaching must come together, especially at a research university (Boyer, 1991). To support the aspect of teaching, Boyer (1991) suggests that new tenure review may be initiated to take teaching into account, thereby enabling a shift toward teaching enhanced by research rather than tenure enhanced by research.

Interdisciplinary courses have the capacity to accomplish more than merely adding intellectual substance to the curriculum (Davis, Faith & Murrell, 1991). Breaking

down some of the artificial barriers between disciplines can expose students to different ways of thinking as well as show the members of an organization what can be accomplished by working as teams (Coate, 1995; Evans et al., 1998). An administrator can strengthen an institution by looking for opportunities in which departments can collaborate and by forming relationships that might be mutually beneficial (Elbe, 1978; Goleman, 1998; Stark et al., 1986). In this way, rapport may be built and opportunities for group problem solving facilitated, thus building group dynamics (Goleman, 1998, Stark et al., 1986).

In line with being able to develop an interdisciplinary course, an administrator can model an important strategy for faculty by team-teaching a course (Evers et al., 1998; Goleman, 1998; Stark et al., 1986). Leading by example, an administrator can exhibit the give and take necessary to team-teach a course (Goleman, 1998). By collaborating, sharing plans and information resources, an administrator can demonstrate skills in respect and interpersonal communication (Goleman, 1998; Stark et al., 1986). Additionally, the team-teaching model may further facilitate moving away from a class that has previously been lecture-driven to collaborating by video or multimedia with another professor at a remote site or from another institution (Evers et al., 1998). This latter option enriches not only the student, but also enhances the relationships between and among institutions.

Human Relations

Of all skills in the human relations category, the ability to choose a competent staff is mentioned more consistently than any other (American Compensation

Association, 1996; Chamberlain, 1972; Dodds, 1962; Elbe, 1978; Gallagher, 1994; Lahti, 1973; Ruben, 1995; Townsend & Bassoppo-Moyo, 1997). Ruben (1995) stresses that people are an organization's greatest resource, so developing strong interviewing skills (Lahti, 1973) in order to hire people who are sensitive to the mission of the institution (Chamberlain, 1972) is extremely important to an administrator. Dodds (1963) additionally urges administrators to learn how to choose people who will give an honest appraisal since there are countless instances in which a leader must take action on many matters in a short period of time; often there just is not enough time for scholarly exploration. Drawing upon the honest and informed appraisal of trusted advisors will enable a leader to arrive at decisions that are fairer and more accurate.

An ongoing program of staff development indicates that the institution recognizes the important role of its employees (Lewis, 1994). Besides developing talent in the individual who is still excited about his or her work, a good staff development program can help an administrator encourage staff members who think they have reached the limits of their growth or are burned out by many years of service (Ginsberg, 1993). Encouraging faculty to travel and to attend workshops or making sabbaticals available may bring energy back into a staff member's job performance and possibly return animation to a faculty member's teaching (Argyris & Cyert, 1980; Chamberlain, 1972).

Bennis & Nanus (1985) describe an effective leader as someone who motivates rather that coerces people into service. Motivating staff, generating enthusiasm, and promoting group harmony by keeping promises to staff during and after training enables a leader to get the most from people (Elbe, 1978; Goleman, 1995; Westerman, 1994). One of the best motivators is a leader's ability to show confidence in employees (Leslie

& Fretwell, 1996) and take visible pride in their accomplishments (Goleman, 1998; Lahti, 1973).

College and university administrators need an ability to evaluate and recommend faculty for promotion (Evers et al., 1998; Elbe, 1978; Katz & Kahn, 1966; Kotter, 1996; Ruben, 1995; Townsend & Bassoppo-Moyo, 1997). An administrator has to have some understanding of the needs of faculty and the characteristics of those to promote (Elbe, 1978) in order to assess the current level of performance (Ruben, 1995). There should additionally be a sense of equity in the use of rewards such as promotion and tenure by adhering to an institution's strict guidelines and not allowing favoritism to enter into such decisions (Katz & Kahn, 1966). In this trying period when the focus of education is turning toward learning outcomes, Evers et al. (1998) suggest that evaluation procedures for tenure and promotion may change to reflect the quality of teaching, a somewhat different focus than that of scholarly publications (Boyer, 1991). Changes in tenure and promotion qualifications are issues with which an administrator must stay current in order to fairly evaluate the faculty.

Evaluation of staff is most effective when accomplished in a fair and diplomatic manner (Bennis & Nanus, 1985; Ginsberg, 1993; Goleman, 1995, Goleman 1998). Ginsberg (1993) encourages administrators to obtain counseling skills that are useful for performance appraisals as well as many other issues. Appraisal methods could draw upon counseling techniques by offering useful feedback and identifying areas for further growth (Goleman, 1998), thus actually assisting an employee in his or her growth (Lahti, 1973) rather than merely criticizing. When evaluating employees, Bennis and Nanus (1985) urge that reasonable failure should not be received with anger. Rather, the focus

should be on what a person has done and is able to do instead of relating an incident to that person's character (Goleman, 1995). Goleman (1995) further suggests that criticism and praise alike are most effective and most well received when specific and, in the case of criticism, good will can be established by opening a door and offering a solution to the problem.

An ability to manage staff resources in an effective manner makes sense considering that the product of colleges and universities is educated people. Ultimately this involves the extent to which human assets are maximized so that the education process achieves maximum effectiveness with limited budgets (Goleman, 1998). Managing people and tasks is an important administrative skill (Evers et al., 1998) that Katz and Kahn (1966) posit can promote loyalty if organizational needs are balanced to some of the needs of staff. An awareness of the workload of each person under her/his supervision allows an administrator to ensure that no one person is over-burdened. Equalizing the workload over the full breadth of staffing resources may help to promote both harmony and teamwork.

Summary

Colleges and universities in the United States have historically responded to societal changes by reinventing their curricula to serve the needs of an evolving nation. Restrictive budgets, the demands of higher education consumers, and the strain of keeping pace with technological advances are stressors that contemporary administrators must be willing to face. Possessing competencies in the categories of management, leadership, curriculum and human relations may assist an administrator in the demanding

task of skillfully leading a 21st century institution, and program review through needs assessment will enable administrators of doctoral programs in higher education administration to offer relevant instruction in the competencies required to meet the job challenges of present-day college and university leaders.

CHAPTER 3

Methods

Introduction

This study sought to investigate the relationship between the independent variable, the doctoral program of study in higher education administration at Marshall University/WVU Cooperative program and Ohio University, and the dependent variables, the participants' perceptions of the degree to which 25 literature-based administrative competencies were addressed in their programs of study and the perceived degree of importance each of the competencies carries in the job of an administrator. The study sought to determine what competencies are most important to a practicing administrator and whether the doctoral programs of study in higher education administration at the Marshall University/WVU Cooperative program and Ohio University were adequately preparing administrators by offering instruction related to key competencies. The study collected information about the age, sex, and years of postsecondary administrative experience of graduates of the higher education administration doctoral programs of study, information that might be considered to be exogenous independent variables. An author-developed questionnaire was utilized to gather information.

The study was a form of descriptive, applied research, seeking to compile information to apply to a "real-world," practical environment. It is non-experimental since random assignment of subjects to groups was not possible (i.e., the groups already existed) and because there was no manipulation of the independent variables. It was a quantitative study to the extent that it relied on the collection of numerical data as well.

This chapter identifies the population surveyed, the instrument developed to gather data, the pilot test of the instrument and results thereof, the procedures employed

in the pilot test, the development of the final survey, and the methods that were used to analyze the final data.

Population and Sample

The population of the study consisted of the graduates of the Marshall University/ West Virginia University Cooperative (Co-op) Doctoral Program in higher education administration and the graduates of Ohio University residential doctoral program in higher education administration (N = 302). Ohio University was chosen to participate in the study since it is one of Marshall University's peer institutions and, as such, is an institution of similar size and demographics. Some graduates of the aforementioned programs may not be currently practicing administrators therefore all graduates of the two programs will be surveyed, rather than sampling the population, to maximize the usable population. To strengthen the study, a return rate exceeding the recommended minimum level of 50 % plus one will be attempted before conducting data analysis (Kerlinger & Lee, 2000). The information gathered from surveying this population will generalize to other public universities of similar size.

Instrumentation

Horace Mann first used the questionnaire method as a research tool in 1847 to survey teachers in Massachusetts concerning their attitudes on specific educational issues (Smith & Smith, 1959). Mann's survey was 10 pages (Smith & Smith, 1959), a length that is currently discouraged since many people will not take the time to respond to such a lengthy instrument (Converse & Presser, 1986; Johnson & Christensen, 2000).

A short, one-to-four-page survey or questionnaire has the advantage of flexibility, efficient use of space, breadth, and speed, as well as access to people who would

otherwise be difficult to reach (Babbie, 1998; Dillman, 2000). Disadvantages include a low response rate, the tendency to be subject to the biases of respondents, and the possible unwillingness of respondents to report their candid responses (Babbie, 1998; Dillman, 2000).

A cardinal principle of questionnaire construction is to "make sure the questionnaire items match [the] research objectives" (Johnson & Christensen, 2000, p. 128). The 25 competencies contained within the author-developed questionnaire for this study (Appendix C) were based on an extensive review of leadership and management literature, reported in the previous chapter. Following the 25 competencies on the questionnaire is a brief demographic section asking for information concerning the respondent's age, sex, years of experience as an administrator, and institution from which the participant received her/his doctoral degree. While there is a significant amount of other demographic data that could be considered, this study will limit itself to those specified in the research questions. Other demographic information was not supported in the literature, and two previous studies of a similar nature (Crawford, 1983; Haynes, 1991) did not include any other demographic questions. Anonymity of respondents will be assured; respondents will be specifically asked not to write their names anywhere on the instrument.

Demographic Information

According to Dillman (1978) virtually all surveys ask for respondents to report demographic information to explore how other kinds of information (e.g., beliefs, attitudes and behavior) differ for people with various attributes. The most common demographic information to be requested includes age, educational level, occupation,

income, sex, marital status, and the composition of the respondent's family (Dillman, 1978).

For the purpose of this study, only demographic information supported by the leadership and management literature cited in previous pages will be requested. Bennett (1983) supposes that an older administrator might respond negatively to some questions due to depression resulting from having achieved an immobile status. Conversely, Clancy (1997) states that the older administrator might be better able to balance the effects of a changing climate against job satisfaction and feel less bothered by environmental changes. Thus, a more mature administrator might be more inclined to take a positive outlook on questions involving the business of administration. Older administrators are also thought to be more collaborative, more flexible (Fitzgerald, 1997), and more apt to be team builders (Rosen & Brown, 1996). An older administrator, in many cases, also has more years of experience on the job, and so is thought to have more enhanced insight than those less experienced, a quality that may conceivably cause a difference in the way he or she may respond to a questionnaire (Kouzes & Posner, 1987).

A respondent's sex is an additional factor that may influence the choice of a response on a questionnaire. Women and men may have different leadership styles due to differences in the nature of their life experiences (Gardner, 1990). Men tend to define stronger boundaries between administrative titles and also are inclined to act more independently (Rosen & Brown, 1996). Women, on the other hand, are likely more collaborative and are apt to build teams, thus sharing responsibility and accomplishments (Rosen & Brown, 1996). Women are also found to be more participative with regard to decision making (Wolck, 1997), more open to the views of subordinates (Maccaby,

1981), and more inclined to spend more time encouraging others and building the confidence of co-workers (Kouzes & Posner, 1987).

Pilot test

It is strongly recommended that an author-developed questionnaire be pilot-tested to determine its efficacy and appropriateness to the subject matter (Babbie, 1998; Johnson & Christensen, 2000). A pilot test sample size of a minimum of five to ten people is considered to be appropriate (Johnson & Christensen, 2000).

Ten practicing administrators possessing the EdD degree in higher education administration (excluding graduates from Marshall University, West Virginia University and Ohio University) were contacted by phone or by email. The nature of the study was indicated to be a doctoral dissertation exploring administrative competencies as they relate to the program of study in higher education administration, and administrators were asked if they would be willing to participate. If so, it was explained that the questionnaire was an Excel file that could be emailed to and from each person.

Once an affirmative answer was received concerning willingness to participate, the questionnaire was either faxed or sent to the administrator as an attachment to an email message. Respondents had the option of mailing, emailing or faxing the completed questionnaire back to the researcher. Pilot test respondents were asked to respond not only to questionnaire items, but also to make any comments regarding the appropriateness of the competencies or comments that they felt might enhance the quality of the information obtained or the instrument in general. Queries were made by the researcher until all 10 volunteer responses were obtained. The pilot test questionnaire

(Appendix F) was approved by the West Virginia University Human Subjects Exemption Board (Appendix G).

Results of the Pilot Test

Results of the pilot test were analyzed using the software package for social sciences (SPSS) statistical software package, version 11.0 and descriptive statistics. Due to the limited number of respondents and the dichotomous nature of the data, simple descriptive statistics provided the most useful information. The greatest number of respondents (n = 4) reported their ages to be in the range category of 46-55 years, and most respondents possessed over twenty years of postsecondary administrative experience (n = 8). Seven respondents were male and three were female.

Seven competencies were perceived by all ten respondents to have been addressed in their programs of study: the ability to gather, analyze and interpret data for decision making; consider diverse points of view and/or to be open to new ideas; speak and write in a clear and concise manner; plan and implement new academic activities; relate research to teaching; identify problems and their solutions; and build and facilitate teams and/or to promote cooperation. On the other hand, one competency, the ability to develop partnerships with business representatives, was perceived as not to have been addressed in the program of study by eight respondents.

Despite the fact that the competency perceived to have been least addressed in the program of study was in the leadership group, most other leadership competencies were perceived to have been addressed. In an attempt to avoid the leadership/management debate, this study's distinction between leadership and management was taken from the writings of Gardner (1990) and Velsor and Fleenor (1997). Gardner conceded that many

leadership and management duties overlap, but nevertheless viewed management as those duties that keep a system functioning on a day-to-day basis, a view that was expanded upon by Velsor and Fleenor (1997). Gardner (1990) preferred to conceptualize leadership as tasks that require vision and the ability to act as a spokesperson and symbol for the organization.

Raw data for the pilot appear in Appendix I. Mean leadership values were M = 7.6 for a "yes" response and M = 2.4 for a "no" response. The curriculum and administration groups also appeared in the pilot study to have been addressed by most respondents. Curriculum mean values were M = 8.3 for a "yes" response and M = 1.7 for a "no" response and administration mean values were M = 7.7 for a "yes" response and M = 2.3 for a "no" response.

Human relations competencies appeared to be least addressed in the doctoral program of study in higher education administration for the pilot group. The mean values were M = 5.0 for a "yes" response and M = 5.0 for a "no" response.

Correlations were explored between the competencies and the demographic questions. Computing Pearson's r, a moderate negative correlation was noted between the age of the respondent and the leadership ability of building consensus (r = -.679, statistically significant at 0.044). A significant correlation was also indicated between "years of experience" and the leadership ability of building consensus (r = -.946, statistically significant at 0.000). The final correlation was moderate and indicated to exist between sex and the human relations competency of "an ability to manage staff resources in an effective manner" (r = .655, statistically significant at 0.040).

Only one correlation was indicated between and among demographic variables, a correlation between age and years of experience (r = .681, statistically significant at 0.043). Since age and years of experience often correlate, this is not surprising.

Changes Made to the Final Questionnaire

Originally, the questionnaire contained the 25 competencies and asked respondents to merely indicate whether or not the competencies were addressed in their programs of study by circling either "yes" or "no" (Appendix F). Several respondents indicated that data collected in this way would yield limited information and suggested that Likert scales gauging (a) the extent to which the competency was addressed in their programs of study and (b) the extent to which participants felt competencies were important to an administrator's job might be more appropriate. The grouping of competencies was also questioned, suggesting that the "administration" category be renamed "management" and that competencies be redistributed in those categories to more appropriately reflect the literature. Finally, it was suggested that "current title" be eliminated since an administrator's title may not influence the decision of whether or not a competency was addressed in the program of study. After careful consideration, the final questionnaire was altered to incorporate these suggestions. Respondents to the pilot test made favorable comments regarding the inclusive nature of the competencies as they applied to the job of an administrator.

Doctoral committee members for this study suggested two additional revisions at the prospectus meeting. It was suggested that meaningful data might be obtained by adding two Likerts asking the degree to which each respondent felt competent (a) upon graduation and (b) at the time of responding to the questionnaire. These Likerts were

added to the final questionnaire in the interest of discerning whether curriculum alone is sufficient for administrative competence.

Respondents in the final stage of the study were asked to indicate to what degree each competency was addressed in their programs of study and was important to the job of an administrator by considering their answers with regard to a five-point Likert (1932) scale ranging from "strongly agree" (5) to "strongly disagree" (1). Respondents were also asked to indicate how competent they felt with regard to each competency upon graduation and at the time of survey with two other five-point Likert rating scales (Appendix C). The advantage of the multiple-item rating scale is its ability to provide more reliable values and more variability, enabling the researcher to make finer distinctions between and among respondents (Johnson & Christensen, 2000).

Procedures

Using a one-shot case study design (Campbell; & Stanley, 1963; Kerlinger & Lee, 2000) and the pilot-tested, revised, and self-reported questionnaire survey procedures, this study collected information about the age, sex, years of postsecondary administrative experience, and institutions from which participants graduated as well as opinions regarding the 25 administrative competencies. To reduce the effects of bias on the part of respondents, this study assured respondents' anonymity (Kerlinger & Lee, 2000).

The questionnaire (Appendix C), cover letter (Appendix D), and a self-addressed stamped return envelope were mailed to each graduate of the Marshall University/WVU Co-op (1978 – 2001) and Ohio University (1982 – 2001) residential doctoral programs in higher education administration (N = 286). Researchers have been urged to give special consideration to paper quality, printing, personalization of the mailing envelope, and the

use of an ordinary stamp instead of a machine stamp (Babbie, 1990; Bailey, 1981; Dillman, 2000). It has also been noted that the use of color paper may contribute to a higher return (Babbie, 1990; Bailey, 1981). Therefore, questionnaires were printed on color paper and envelopes customized by hand addressing in an attempt to enhance the return rate. The cover letters (Appendix D) were printed on Marshall University Leadership Studies departmental letterhead. Both questionnaire and cover letter were approved by the Marshall University Human Subjects Exemption Board (Appendices F and G).

Each participant was asked to respond to the first survey and return it to the researcher within one week (Dillman, 1978). Due to the size of the instrument after including four Likert scales, all instruments were printed on legal-size paper. The first surveys were goldenrod in color. Two weeks after the initial mailing, a second mailing was conducted to improve the return rate. This second mailing had a different cover letter (Appendix D) and the questionnaire was printed on green paper (Dillman, 1978). A third mailing was conducted two weeks following the second on light yellow paper.

Data Scoring

Data from the questionnaire were compiled in the Data Editor matrix of the SPSS software. Each survey was assigned a number according to the order of receipt and its data entered into the matrix.

Data Analysis

Statistics were computed using SPSS 11.5 software. Independent Samples t-tests were computed to determine if there were data significant with regard to sex and the institution from which respondents graduated (Vogt, 1999). The SPSS program computed

independent samples t-tests and used Levene's test for equality of variance to determine whether or not one was to assume equality of variance when reading significance levels. The independent samples t-test compared the means of two groups (such as the two institution and the two sex groups) to determine if the difference between the means of two groups was significant (Johnson & Christensen, 2000).

One-way analysis of variance (ANOVA) was computed to examine the relationship between the data for each competency and the demographics of "age" and "years of postsecondary administrative experience." ANOVA is used to compare two or more group means (Johnson & Christensen, 2000) such as the five age groups and the five ranges included in the survey for "years of postsecondary experience."

Correlations are analyses showing the degree to which two variables are related (Vogt, 1999) and follow the same linear path. Using Paired Samples t-test correlations, the correlation coefficient Pearson's *r* was computed for competency pairs (such as competency 1 / program of study vs. competency 1/ time of the survey) to determine relationships between (a) perceived inclusion in the program of study and perceived competence at the time of the survey, (b) perceived importance to an administrator's job and perceived competence upon graduation, and (c) the perceived inclusion of competencies in the programs of study and the extent to which each competency was perceived to be important to an administrator's job.

The Wilcoxon Matched-Pairs Sums test was computed to determine if there was a significant difference between perceived competence upon graduation and perceived competence at the time of the survey. Wilcoxon is appropriate when analyzing the differences between the means of pairs of data groups. It is a nonparametric test in that it

makes no assumptions based on the distribution of data, differing from a t-test that is thought to be too vulnerable to deviations from a normal distribution. The significance level for all data was held to an alpha = .05 level.

Summary

The procedures described in this chapter were designed to gather and analyze data examining the relationships between 25 leadership and management competencies and the doctoral programs of study in higher education administration in the Marshall University/ WVU Cooperative doctoral program and Ohio University residential doctoral program in higher education administration. Graduates of these two programs were asked to report their perceptions of the extent to which their programs of study addressed the 25 leadership and management literature-based competencies, the extent to which the aforementioned competencies were important to the job of an administrator, and the extent to which they felt competent upon graduation and at the time of survey. A return rate better than 50% plus one was targeted due to the uncertain nature of the number of actual practicing administrators from the two programs. The instrument was pilot tested for face validity. Appropriate statistical tests were performed on collected data to determine the relationships in this study.

CHAPTER 4

Presentation and Analysis of the Data

The purpose of this study was to explore the independent variables, the doctoral plans of study in higher education administration at Marshall University/WVU Co-op and Ohio University, and relate them to the dependent variables. The dependent variables were the perceptions of the degree to which 25 leadership competencies were perceived to be addressed in the doctoral program of study in higher education administration and were perceived to be important to the job of an administrator. The independent variables were additionally statistically related to the degree to which each respondent felt competent upon graduation from her/his program of study in higher education administration and at the time of survey. Demographic data (age, sex, and years of postsecondary administrative experience) were also collected to determine whether respondents' various attributes affected perceptions. Data were gathered using the author-developed Administrative Competencies Questionnaire (ACQ) and statistical analyses were conducted using SPSS 11.5 software.

The ACQ is an instrument that asked respondents to report (via Likert scales) the degree to which 25 literature-generated leadership competencies were addressed in their programs of study in higher education administration as well as asking them to rate how important they perceived the competencies to be to the job of an administrator. The ACQ also asks (through Likert scales) how competent they perceived themselves to be with regard to those competencies upon graduation and at the time of survey. Competencies were arranged into four groups on the questionnaire: (a) management, (b) leadership, (c) curriculum, and (d) human relations. Every other line is shaded to help the respondent

rate the appropriate competency. Competency questions are followed by a brief demographic survey asking for information regarding age, sex, years of post-secondary administrative experience and the institutions from which the respondents received their highest degrees. Due to the space required by four Likert scales and in order to limit the questionnaire to one page, it was printed on legal-size paper.

Chapter four provides a description and analyses of the data collected in the study and is divided into the following sections: (a) descriptive data, (b) statistical analyses of the data, (c) ancillary findings, (d) pair-samples analyses, and (e) a summary of the chapter.

Descriptive Data

The population consisted of all graduates of the doctoral programs of study in higher education administration from the Marshall/WVU Co-op (1978 – 2001) and Ohio University (1982 – 2001). The sample (N = 286) consisted of all graduates of these programs residing within the continental United States (Marshall/WVU = 135; Ohio University = 151). The difficulty of including return postage for overseas graduates of these programs was determined to be beyond the scope of this study. Of the sample size, 56 additional graduates were eliminated because of outdated addresses and 17 because they self-reported they were not administrators. The final working sample size was n = 213 (74.5% of the sample size). Table 1 represents the breakdown of the working sample by institution; two individuals chose not to indicate the institution from which they received their degrees and are accounted for in the column labeled *not indicated.*

Three mailings were performed, each two weeks apart. In order to stimulate response and to make the questionnaire more noticeable, questionnaires were produced in

three colors. The initial questionnaire was printed on goldenrod paper and the second and third were green and light yellow respectively. The different colors also made it simple to determine how many questionnaires were returned from each mailing: 114 from the first mailing, 40 from the second, and 15 from the third for a total of 169 returned surveys and a response rate of 79.3%. As mentioned, 17 of these surveys were eliminated because respondents self-reported that they were not practicing administrators. For statistical purposes, then, 152 surveys were used, bringing down the working response rate to 71.4%.

Table 1

Frequency Distribution of Working Sample

	Marshall/WVU	OU	Not Indicated	Total
Population	135	167		302
Overseas Graduates	0	16		16
Outdated Addresses	48	8		56
Not Administrators	8	9		17
Remaining Sample	79	134		213
Usable Surveys	63	87	2	152

Table 2 reflects the respondents' age distribution. Response to the item regarding age required respondents to qualify their ages within established categories. Five categories were provided beginning with 26-35 years. Categories proceeded in increments of 10 years, ending with the category of 66 years and older. Two respondents reported their ages being in the category 26-35 years. Twenty-eight respondents reported ages between 36 and 45 years. Seventy-one reported they were between 46 and 55 years old. Forty-two indicated their age range to be 56-65 years, and eight respondents

reported they were 66 or older, with one respondent declining any indication. These data are reflected in Table 2.

Table 2

Frequency Distribution by Age

Range	f	%N
26 – 35 years	2	1.3%
36 – 45 years	28	18.4%
46 – 55 years	71	46.7%
56 – 65 years	42	27.6%
66 and older	8	5.3%
Unreported	1	.7%
Total	**152**	**100**

Within the working sample (n = 152), 54.6% of the respondents were male, 42.1% were female, and 3.3% chose not to indicate sex (Table 3).

Table 3

Frequency Distribution by Sex

Sex	f	%N
Male	83	54.6
Female	64	42.1
Unreported	5	3.3
Total	**152**	**100.0**

When asked to report the extent of their post-secondary administrative experience, respondents chose from the following categories: (a) < 5 years, (b) 6-10 years, (c) 11-15 years, (d) 16-20 years, and (e) > 20 years. Three respondents indicated they had less than five years of post-secondary administrative experience. Sixteen reported they had from six to ten years post-secondary administrative experience. Twenty-four reported they had between eleven and fifteen years post-secondary administrative experience. Thirty-nine respondents indicated having from sixteen to twenty years post-secondary administrative experience. Seventy reported they had more than twenty years post-secondary experience. The results are presented in Table 4.

Table 4

Frequency Distribution by Years of Experience

Range	**f**	**%N**
< 5 years	3	2.0
6 – 10 years	16	10.5
11 – 15 years	24	15.8
16 – 20 years	39	25.7
> 20 years	70	46.1
Total	**152**	**100.0**

Statistical Analyses of the Data

Analysis of Likert #1: Program of Study

The major findings are described here in direct relation to the research questions used to drive the study. The findings are presented in accordance with the Likert scale to

which they apply. Therefore, results that apply to the *program of study* Likert scale (Research Questions 1 and 3) will be presented first, followed by results from the Likert scale *importance to the job of an administrator* (Research Questions 2 and 4).

Research Question 1: What is the extent to which graduates of the programs of study in higher education administration at Marshall University/West Virginia University and Ohio University perceive the leadership competencies emergent from the literature as having been addressed in their program of study?

The first Likert scale on the ACQ asked respondents to indicate the degree to which each leadership competency was addressed in their program of study (POS). Respondents circled their responses on a scale of 5 for "strongly agree" to 1 "strongly disagree." Overall, respondents perceived the competencies were addressed in their program of study with responses ranging from a high mean score of M= 4.20 (SD = 0.962) for competency nine (ability to speak and write in a clear and concise manner) to a low mean score of M= 2.62 (SD = 1.234) for competency fourteen (ability to develop partnerships with business representatives). Complete results are reflected in Table 5 where the high and low means are highlighted. M (1) refers to institution 1, Marshall/WVU and M (2) refers to institution 2, Ohio University. M (1+2) is the mean of the combined institutions and SD (1+2) is the standard deviation for that group mean. *Comp* is an abbreviation for competency.

Table 5

Mean Scores Indicating Respondents' Perceptions of the Degree to Which Competencies Were Addressed in Their Program of Study (POS)

Competency	M (1)	M (2)	M (1+2)	SD (1+2)
1- assess/manage institutional resources	3.49	3.31	3.37	1.096
2 -gather, interpret data for decision making	3.87	3.93	3.90	1.002
3- create organizational governance structure	3.49	3.54	3.55	1.014
4 - build consensus	3.32	3.17	3.21	1.101
5 - mediate/resolve conflict; manage dissent	3.16	2.97	3.07	1.081
6 - delegate without micromanaging	3.06	2.77	2.93	1.124
7 - build/ facilitate teams; promote cooperation	3.46	3.3	3.37	1.144
8 - manage personal time	2.76	2.64	2.69	1.303
9 - speak/ write in clear and concise manner	4.10	4.24	4.20	0.962
10 - identify problems and their solutions	3.98	3.82	3.91	0.972
11 - set institutional goals	3.76	3.55	3.67	1.102
12 - consider diverse views; open to new ideas	3.98	3.84	3.91	1.032
13 - design strategic plan	3.35	3.46	3.43	1.243
14 - develop business partnerships	2.69	2.53	2.62	1.234
15 - develop political relationships	2.83	2.74	2.79	1.222
16 - plan/implement new academic activities	3.41	3.43	3.43	1.167
17 - relate research to teaching	3.54	3.47	3.50	1.243
18 - develop interdisciplinary programs	2.70	2.76	2.75	1.277
19 - team teach a course	2.61	2.69	2.67	1.324
20 - choose staff	3.02	2.82	2.90	1.240
21 - plan/implement staff development program	2.86	2.82	2.83	1.228
22 - train/ motivate staff	2.98	2.94	2.97	1.254
23 - evaluate staff	3.08	3.25	3.21	1.222

Competency	M (1)	M (2)	M (1+2)	SD (1+2)
24 - evaluate faculty; recommend for promo./tenure	2.80	2.76	2.80	1.303
25 - manage staff resources	3.32	3.09	3.21	1.211

No significant difference ($p<.05$) was discovered as a result of the independent samples t-test based on the institution from which respondents graduated (Table 6). The abbreviation "Inst." stands for "institution" where "1" refers to Marshall/WVU and "2" refers to Ohio University.

Table 6

Independent Samples t-test: Program of Study / Institution

Competency	Inst.	M	SD	t	p	d
1- manage institutional resources	1	3.49	1.096	1.006	0.316	0.18
	2	3.31				
2-interpret data for decision making	1	3.87	1.002	-0.360	0.719	-0.06
	2	3.93				
3- create governance structure	1	3.49	1.014	-0.284	0.777	-0.05
	2	3.54				
4- build consensus	1	3.32	1.101	0.818	0.415	0.15
	2	3.17				
5- mediate conflict/manage dissent	1	3.16	1.081	1.079	0.282	0.19
	2	2.97				
6-delegate without micromanaging	1	3.06	1.124	1.594	0.113	0.29
	2	2.77				
7-build teams	1	3.46	1.144	0.853	0.395	0.16
	2	3.30				
8-manage personal time	1	2.76	1.303	0.554	0.581	0.12

Competency	Inst.	M	SD	t	p	d
	2	2.64				
9-speak and write clearly	1	4.10	0.962	-0.917	0.361	-0.15
	2	4.24				
10-identify problems/solutions	1	3.98	0.972	1.069	0.287	0.17
	2	3.82				
11-set institutional goals	1	3.76	1.102	1.137	0.258	0.21
	2	3.55				
12-consider diverse points of view	1	3.98	1.032	0.847	0.399	0.15
	2	3.84				
13-design a strategic plan	1	3.35	1.243	-0.509	0.611	-0.10
	2	3.46				
14-develop business partnerships	1	2.69	1.234	0.816	0.416	0.16
	2	2.53				
15-develop political relationships	1	2.83	1.222	0.462	0.645	0.09
	2	2.74				
16- plan new academic activities	1	3.41	1.167	-0.079	0.937	-0.02
	2	3.43				
17-relate research to teaching	1	3.54	1.243	0.335	0.738	0.07
	2	3.47				
18-develop interdisciplinary programs	1	2.70	1.277	-0.249	0.803	-0.05
	2	2.76				
19-team teach a course	1	2.61	1.324	-0.382	0.703	-0.09
	2	2.69				
20-choose competent staff	1	3.02	1.240	0.971	0.333	0.20
	2	2.82				
21-plan staff development program	1	2.86	1.228	0.201	0.841	0.04
	2	2.82				
22-train and motivate staff	1	2.98	1.254	0.198	0.843	0.04
	2	2.94				

Competency	Inst.	M	SD	t	p	d
23-fairly evaluate staff	1	3.08	1.222	-0.854	0.394	-0.17
	2	3.25				
24-evaluate faculty	1	2.80	1.303	0.216	0.829	0.05
	2	2.76				
25-manage staff resources	1	3.32	1.211	1.116	0.266	0.23
	2	3.09				

Research Question 3: What is the relationship, if any, between the age, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of the extent to which each emergent competency was addressed in their programs of study in higher education administration?

A one-way analysis of variance (ANOVA) was computed to explore the relationship between respondents' perceptions of the degree to which each competency was addressed in their programs of study and the ages of the respondents. Significant relationships emerged for competency 14 (ability to develop partnerships with business representatives, $p<.05$), part of the leadership group, and competency 25 (ability to manage staff resources in an effective manner, $p<.05$), part of the human relations group. Statistics may be viewed in Table 7.

Table 7

ANOVA: Program of Study /Age

Comp	Groups	SS	df	MS	F	p
1-manage inst. resources	Btwn	3.587	4	0.897	0.739	0.567
	Within	177.102	146	1.213		
	Total	180.689	150			
2-interpret data/ decision making	Btwn	6.067	4	1.517	1.548	0.191
	Within	143.019	146	0.980		
	Total	149.086	150			
3-create governance structure	Btwn	3.500	4	0.875	0.819	0.515
	Within	155.970	146	1.068		
	Total	159.470	150			
4-build consensus	Btwn	2.413	4	0.603	0.498	0.737
	Within	176.805	146	1.211		
	Total	179.219	150			
5-mediate conflict/manage dissent	Btwn	3.235	4	0.809	0.674	0.611
	Within	175.228	146	1.200		
	Total	178.464	150			
6-delegate w/o micromanaging	Btwn	3.081	4	0.770	0.596	0.666
	Within	188.800	146	1.293		
	Total	191.881	150			
7-build teams	Btwn	2.035	4	0.509	0.384	0.820
	Within	193.197	146	1.323		
	Total	195.232	150			

Competency	Groups	SS	df	MS	F	p
8-manage personal time	Btwn	1.380	4	0.345	0.200	0.938
	Within	248.419	144	1.725		
	Total	249.799	148			
9-speak and write clearly	Btwn	7.286	4	1.822	2.034	0.093
	Within	130.753	146	0.896		
	Total	138.040	150			
10-identify problems /solutions	Btwn	4.500	4	1.125	1.192	0.317
	Within	137.805	146	0.944		
	Total	142.305	150			
11-set institutional goals	Btwn	3.664	4	0.916	0.734	0.570
	Within	182.111	146	1.247		
	Total	185.775	150			
12-consider diverse points of view	Btwn	3.124	4	0.781	0.724	0.577
	Within	157.578	146	1.079		
	Total	160.702	150			
13-design a strategic plan	Btwn	3.337	4	0.834	0.528	0.716
	Within	229.203	145	1.581		
	Total	232.540	149			
14-develop business partnerships	Btwn	18.024	4	4.506	3.169	0.016
	Within	206.169	145	1.422		
	Total	224.193	149			
15-develop political relationships	Btwn	10.740	4	2.685	1.848	0.123
	Within	212.147	146	1.453		
	Total	222.887	150			

Competency	Groups	SS	df	MS	F	p
16-plan new academic activities	Btwn	7.011	4	1.753	1.289	0.277
	Within	195.754	144	1.359		
	Total	202.765	148			
17-relate research to teaching	Btwn	5.199	4	1.300	0.814	0.518
	Within	230.035	144	1.597		
	Total	235.235	148			
18-develop interdisciplinary programs	Btwn	1.500	4	0.375	0.223	0.925
	Within	242.312	144	1.683		
	Total	243.812	148			
19-team teach a course	Btwn	8.965	4	2.241	1.283	0.279
	Within	248.028	142	1.747		
	Total	256.993	146			
20-choose competent staff	Btwn	11.671	4	2.918	1.925	0.109
	Within	219.829	145	1.516		
	Total	231.500	149			
21-plan staff development program	Btwn	12.268	4	3.067	2.080	0.086
	Within	215.255	146	1.474		
	Total	227.523	150			
22-train and motivate staff	Btwn	5.449	4	1.362	0.854	0.493
	Within	231.224	145	1.595		
	Total	236.673	149			
23-fairly evaluate staff	Btwn	5.755	4	1.439	0.954	0.435
	Within	220.285	146	1.509		
	Total	226.040	150			

Competency	Groups	SS	df	MS	F	p
24-evaluate faculty	Btwn	5.245	4	1.311	0.758	0.554
	Within	247.261	143	1.729		
	Total	252.507	147			
25-manage staff resources	Btwn	16.521	4	4.130	2.906	0.024
	Within	207.519	146	1.421		
	Total	224.040	150			

Crosstabs for the statistics represented by the ANOVA in Table 7 imply that for competency fourteen, as the age level increased, the perception that the competency was not addressed in the program of study decreased. All of the respondents in the 26 – 35 year age group (N = 2) disagreed or strongly disagreed that the competency was addressed in their program. In the 36 – 45 year age group, 64.3% (N = 18) circled either "disagree" or "strongly disagree". In the category 46 – 55 years, 50% (N = 34) indicated "disagree" or "strongly disagree" and the 56 – 65 year and 66 and older categories indicated 31 % (N = 13) of the time and 37.5% (N = 3) of the time respectively that they disagreed or strongly disagreed that the competency was addressed.

For competency 25, as the age level increased, the perception that the competency was addressed in the program of study seemed to increase. The following percentages represent the number of respondents who circled either "agree" or "strongly agree" to the question asking if the competency was addressed in their programs: 26-35 years, 50% (N = 1); 36-45 years, 35.7% (N = 10); 46-55 years, 39.7% (N = 27), 56-65 years, 58.1% (N = 25); 66 years and older, 75% (N = 6).

An independent samples t-test was computed to determine if there were any significant relationships ($p<.05$) between the respondents' perceptions of the competencies having been addressed in their plans of study and their sex. Males rated competency eight (ability to manage personal time), a skill in the management group significantly higher than females (Table 8).

Table 8

Indepentdent Samples t-test: Program of Study / Sex

Competency	Sex	M	SD	t	p	d
1- manage institutional resources	male	3.39	1.080	0.568	0.571	0.10
	female	3.28	1.133			
2-interpret data for decision making	male	3.88	1.017	-0.260	0.795	-0.04
	female	3.92	0.931			
3- create governance structure	male	3.49	0.942	-0.212	0.833	-0.04
	female	3.53	1.140			
4- build consensus	male	3.18	0.990	-0.122	0.903	-0.02
	female	3.20	1.184			
5- mediate conflict/manage dissent	male	3.12	1.029	1.287	0.200	0.23
	female	2.89	1.129			
6-delegate without micromanaging	male	2.88	1.064	0.024	0.981	0.00
	female	2.88	1.202			
7-build teams	male	3.46	1.085	1.519	0.131	0.29
	female	3.17	1.189			
8-manage personal time	male	2.84	1.338	2.017	0.046	0.43
	female	2.41	1.173			
9-speak and write clearly	Male	4.10	1.031	-1.147	0.253	-0.18

Competency	Sex	M	SD	t	p	d
	female	4.28	0.881			
10-identify problems/solutions	male	3.82	0.952	-0.821	0.413	-0.13
	female	3.95	1.015			
11-set institutional goals	male	3.61	1.046	-0.139	0.889	-0.03
	female	3.64	1.226			
12-consider diverse points of view	male	3.92	0.978	0.326	0.745	0.06
	female	3.86	1.111			
13-design a strategic plan	male	3.47	1.243	0.764	0.446	0.16
	female	3.31	1.233			
14-develop business partnerships	male	2.52	1.130	-0.712	0.478	-0.15
	female	2.67	1.332			
15-develop political relationships	male	2.83	1.124	0.773	0.441	0.16
	female	2.67	1.322			
16- plan new academic activities	male	3.53	1.052	1.373	0.172	0.28
	female	3.25	1.307			
17-relate research to teaching	male	3.53	1.151	0.767	0.445	0.17
	female	3.37	1.383			
18-develop interdisciplinary programs	male	2.76	1.236	0.585	0.559	0.12
	female	2.63	1.311			
19-team teach a course	male	2.68	1.263	0.706	0.482	0.16
	female	2.52	1.366			
20-choose competent staff	male	2.89	1.144	0.366	0.715	0.08
	female	2.81	1.367			
21-plan staff development program	male	2.82	1.149	0.338	0.736	0.07
	female	2.75	1.333			
22-train and motivate staff	male	2.93	1.225	0.023	0.981	0.00
	female	2.92	1.313			
23-fairly evaluate staff	male	3.19	1.204	0.331	0.741	0.07
	female	3.13	1.266			

Competency	Sex	M	SD	t	p	d
24-evaluate faculty	male	2.73	1.324	-0.338	0.736	-0.07
	female	2.81	1.304			
25-manage staff resources	male	3.10	1.216	-0.754	0.452	-0.15
	female	3.25	1.234			

A one-way ANOVA based on years of post-secondary experience revealed no significant differences ($p<.05$) in any of the four groups (Table 9).

Table 9

ANOVA: Program of Study / Years of Experience

Competency	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	3.149	4	0.787	0.642	0.633
	Within	180.220	147	1.226		
	Total	183.368	151			
2-interpret data/ decision making	Btwn	6.800	4	1.700	1.741	0.144
	Within	143.516	147	0.976		
	Total	150.316	151			
3-create governance structure	Btwn	4.259	4	1.065	1.007	0.406
	Within	155.504	147	1.058		
	Total	159.763	151			

Competency	Groups	SS	df	MS	F	d
4-build consensus	Btwn	1.156	4	0.289	0.237	0.917
	Within	179.522	147	1.221		
	Total	180.678	151			
5-mediate conflict/manage dissent	Btwn	0.771	4	0.193	0.160	0.958
	Within	177.696	147	1.209		
	Total	178.467	151			
6-delegate w/o micromanaging	Btwn	4.684	4	1.171	0.919	0.454
	Within	187.204	147	1.273		
	Total	191.888	151			
7-build teams	Btwn	8.314	4	2.078	1.633	0.169
	Within	187.055	147	1.272		
	Total	195.368	151			
8-manage personal time	Btwn	10.226	4	2.556	1.547	0.192
	Within	239.668	145	1.653		
	Total	249.893	149			
9-speak and write clearly	Btwn	3.779	4	0.945	1.024	0.397
	Within	135.688	147	0.923		
	Total	139.467	151			
10-identify problems /solutions	Btwn	2.438	4	0.609	0.640	0.634
	Within	139.878	147	0.952		
	Total	142.316	151			
11-set institutional goals	Btwn	4.961	4	1.240	0.993	0.413

Competency	Groups	SS	Df	MS	F	p
	Within	183.558	147	1.249		
	Total	188.520	151			
12-consider diverse points of view	Btwn	1.242	4	0.310	0.285	0.888
	Within	160.278	147	1.090		
	Total	161.52	151			
13-design a strategic plan	Btwn	6.406	4	1.601	1.025	0.397
	Within	228.137	146	1.563		
	Total	234.543	150			
14-develop business partnerships	Btwn	11.695	4	2.924	1.990	0.099
	Within	214.463	146	1.469		
	Total	226.159	150			
15-develop political relationships	Btwn	2.398	4	0.600	0.397	0.811
	Within	221.996	147	1.510		
	Total	224.395	151			
16-plan new academic activities	Btwn	7.232	4	1.808	1.327	0.263
	Within	197.602	145	1.363		
	Total	204.833	149			
17-relate research to teaching	Btwn	4.897	4	1.224	0.770	0.547
	Within	230.597	145	1.590		
	Total	235.493	149			
18-develop interdisciplinary programs	Btwn	6.493	4	1.623	0.989	0.415
	Within	237.880	145	1.641		

Competency	Groups	SS	df	MS	F	p
	Total	244.373	149			
19-team teach a course	Btwn	0.472	4	0.118	0.066	0.992
	Within	256.954	143	1.797		
	Total	257.426	147			
20-choose competent staff	Btwn	3.998	4	0.999	0.639	0.635
	Within	228.307	146	1.564		
	Total	232.305	150			
21-plan staff development program	Btwn	0.724	4	0.181	0.117	0.976
	Within	227.480	147	1.547		
	Total	228.204	151			
22-train and motivate staff	Btwn	3.858	4	0.965	0.605	0.660
	Within	232.817	146	1.595		
	Total	236.675	150			
23-fairly evaluate staff	Btwn	0.826	4	0.207	0.134	0.970
	Within	226.641	147	1.542		
	Total	227.467	151			
24-evaluate faculty	Btwn	3.131	4	0.783	0.452	0.771
	Within	249.419	144	1.732		
	Total	252.550	148			
25-manage staff resources	Btwn	1.240	4	0.310	0.204	0.936
	Within	222.839	147	1.516		
	Total	224.079	151			

Analysis of Likert #2: Perceived Importance to the Job of an Administrator

Research Question 2: What is the extent to which graduates of the programs of study in higher education administration at Marshall University/West Virginia University and Ohio University perceive the leadership competencies emergent from the literature as being important in their jobs as administrators?

The second Likert scale on the ACQ asked respondents to indicate the degree to which they felt each leadership competency was important to their jobs as administrators. Respondents again circled their responses on a scale of 5 for "strongly agree" to 1 "strongly disagree." Respondents indicated that, overall, the competencies were important to their administrative jobs. Mean values ranged from a high of M = 4.83 (SD = 0.409) for competency nine of the leadership group (ability to speak and write in a clear and concise manner) to the low M = 2.81 (SD = 1.339) for competency nineteen of the curriculum group (ability to team teach a course). All means are displayed in Table 10 with the high and low means highlighted. M (1) refers to the mean for Marshall/WVU. M(2) refers to the mean for Ohio University. M (1+2) is the mean for the combined institutions. SD (1+2) is the standard deviation for the means of the combined institutions.

Table 10

Mean Scores: Perceived Importance to an Administrator's Job.

Competency	M (1)	M (2)	M (1+2)	SD (1+2)
1- assess/manage institutional resources	4.42	4.52	4.48	0.788
2 -gather, interpret data for decision making	4.75	4.59	4.66	0.579
3- create organizational governance structure	3.56	3.80	3.72	1.101
4 - build consensus	4.47	4.39	4.40	0.823
5 - mediate/resolve conflict; manage dissent	4.39	4.45	4.43	0.729
6 - delegate without micromanaging	4.26	4.41	4.35	0.781
7 - build/ facilitate teams; promote cooperation	4.31	4.45	4.39	0.734
8 - manage personal time	4.34	4.43	4.38	0.881
9 - speak/ write in clear and concise manner	4.82	4.83	4.83	0.409
10 - identify problems and their solutions	4.74	4.70	4.72	0.546
11 - set institutional goals	4.08	4.34	4.23	0.926
12 - consider diverse views; open to new ideas	4.60	4.43	4.50	0.654
13 - design strategic plan	4.10	4.33	4.24	0.836
14 - develop business partnerships	3.72	3.77	3.78	1.200
15 - develop political relationships	3.63	3.70	3.70	1.293
16 - plan/implement new academic activities	4.00	3.80	3.87	1.216
17 - relate research to teaching	3.75	3.58	3.64	1.213
18 - develop interdisciplinary programs	3.13	3.27	3.21	1.282
19 - team teach a course	3.02	2.64	2.81	1.339
20 - choose staff	4.52	4.75	4.65	0.746
21 - plan/implement staff development program	4.19	4.20	4.19	0.903
22 - train/ motivate staff	4.51	4.55	4.53	0.704
23 - evaluate staff	4.47	4.52	4.50	0.722
24 - evaluate faculty; recommend for promo./tenure	3.62	3.38	3.50	1.546
25 - manage staff resources	4.39	4.59	4.49	0.851

An independent samples t-test was used to explore the relationship between the respondents' perceived importance of the competencies as they relate to the institution from which respondents received their degree in higher education administration. No significant relationships ($p<.05$) were discovered in any of the four groups (Table 11). The abbreviation "Inst." stands for "institution" and "1" refers to Marshall/WVU and "2" refers to Ohio University.

Table 11

Independent Samples t-test: Importance to Administrator's Job / Institution.

Competency	Inst.	M	SD	t	p	d
1- manage institutional resources	1	4.42	0.788	-0.792	0.430	-0.10
	2	4.52				
2-interpret data for decision making	1	4.75	0.579	1.81	0.072	0.17
	2	4.59				
3- create governance structure	1	3.56	1.101	-1.309	0.192	-0.24
	2	3.80				
4- build consensus	1	4.47	0.823	0.598	0.551	0.08
	2	4.39				
5- mediate conflict/manage dissent	1	4.39	0.729	-0.505	0.615	-0.06
	2	4.45				
6-delegate without micromanaging	1	4.26	0.781	-1.204	0.230	-0.16
	2	4.41				
7-build teams	1	4.31	0.734	-1.107	0.271	-0.14
	2	4.45				
8-manage personal time	1	4.34	0.881	-0.587	0.558	-0.09
	2	4.43				
9-speak and write clearly	1	4.82	0.409	-0.072	0.942	-0.01
	2	4.83				
10-identify problems/solutions	1	4.74	0.546	0.448	0.655	0.04

Competency	Inst.	M	SD	t	p	d
	2	4.70				
11-set institutional goals	1	4.08	0.926	-1.644	0.103	-0.26
	2	4.34				
12-consider diverse points of view	1	4.60	0.654	1.586	0.115	0.17
	2	4.43				
13-design a strategic plan	1	4.10	0.836	-1.694	0.092	-0.23
	2	4.33				
14-develop business partnerships	1	3.72	1.200	-0.244	0.808	-0.05
	2	3.77				
15-develop political relationships	1	3.63	1.293	-0.336	0.737	-0.07
	2	3.70				
16- plan new academic activities	1	4.00	1.216	0.974	0.332	0.20
	2	3.80				
17-relate research to teaching	1	3.75	1.213	0.822	0.413	0.17
	2	3.58				
18-develop interdisciplinary programs	1	3.13	1.282	-0.620	0.536	-0.13
	2	3.27				
19-team teach a course	1	3.02	1.339	1.666	0.098	0.37
	2	2.64				
20-choose competent staff	1	4.52	0.746	-1.606	0.122	-0.22
	2	4.75				
21-plan staff development program	1	4.19	0.903	-0.012	0.990	0.00
	2	4.20				
22-train and motivate staff	1	4.51	0.704	-0.369	0.713	-0.04
	2	4.55				
23-fairly evaluate staff	1	4.47	0.722	-0.411	0.682	-0.05
	2	4.52				
24-evaluate faculty	1	3.62	1.546	0.888	0.376	0.23
	2	3.38				

Competency	Inst.	M	SD	t	p	d
25-manage staff resources	1	4.39	0.851	-1.325	0.189	-0.20
	2	4.59				

Research Question 4: What is the relationship, if any, between the ages, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of the degree to which each emergent competency is important to their jobs as administrators?

A one-way ANOVA was computed to explore the relationship between respondents' perceptions of the degree to which each competency was important to their jobs as administrators and the age of the respondent. Significant relationships resulted for competencies one (ability to assess and manage institutional resources, $p<.01$), three (ability to create an organizational governance structure, $p<.01$), eleven (ability to set institutional goals, $p<.01$), thirteen (ability to design a strategic plan, $p<.05$), fourteen (ability to develop partnerships with business representatives, $p<.01$), twenty (ability to choose a competent staff, $p<.01$), and twenty-five (ability to manage staff resources in an effective manner, $p<.01$). Competencies one and three are in the management group; eleven, thirteen and fourteen are in the leadership group; twenty and twenty-five are in the human relations group. Results of the ANOVA are presented in Table 12.

Table 12

ANOVA: Importance to an Administrator's Job / Age

Comp	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	20.181	4	5.045	10.229	0.000
	Within	71.027	144	0.493		
	Total	91.208	148			
2-interpret data/ decision making	Btwn	1.450	4	0.362	1.085	0.366
	Within	48.094	144	0.334		
	Total	49.544	148			
3-create governance structure	Btwn	17.703	4	4.426	3.890	0.005
	Within	164.971	145	1.138		
	Total	182.673	149			
4-build consensus	Btwn	2.114	4	0.529	0.785	0.537
	Within	97.679	145	0.674		
	Total	99.793	149			
5-mediate conflict/manage dissent	Btwn	0.111	4	0.028	0.051	0.995
	Within	78.582	145	0.542		
	Total	78.693	149			
6-delegate w/o micromanaging	Btwn	2.405	4	0.601	0.989	0.416
	Within	88.155	145	0.608		
	Total	90.560	149			
7-build teams	Btwn	2.120	4	0.530	0.990	0.415
	Within	77.673	145	0.536		
	Total	79.793	149			

Competency	Groups	SS	df	MS	F	p
8-manage personal time	Btwn	0.710	4	0.178	0.226	0.923
	Within	112.337	143	0.786		
	Total	113.047	147			
9-speak and write clearly	Btwn	0.558	4	0.140	0.833	0.506
	Within	24.275	145	0.167		
	Total	24.833	149			
10-identify problems /solutions	Btwn	1.106	4	0.277	0.930	0.449
	Within	43.134	145	0.297		
	Total	44.240	149			
11-set institutional goals	Btwn	17.167	4	4.292	5.725	0.000
	Within	108.706	145	0.750		
	Total	125.873	149			
12-consider diverse points of view	Btwn	0.362	4	0.090	0.208	0.934
	Within	63.138	145	0.435		
	Total	63.500	149			
13-design a strategic plan	Btwn	8.183	4	2.046	3.130	0.017
	Within	94.126	144	0.654		
	Total	102.309	148			
14-develop business partnerships	Btwn	20.005	4	5.001	3.765	0.006
	Within	191.297	144	1.328		
	Total	211.302	148			
15-develop political relationships	Btwn	13.229	4	3.307	2.055	0.09

Competency	Groups	SS	df	MS	F	p
	Within	233.411	145	1.610		
	Total	246.640	149			
16-plan new academic activities	Btwn	2.593	4	0.648	0.427	0.789
	Within	215.407	142	1.517		
	Total	218.000	146			
17-relate research to teaching	Btwn	4.932	4	1.233	0.813	0.519
	Within	215.489	142	1.518		
	Total	220.422	146			
18-develop interdisciplinary programs	Btwn	3.556	4	0.889	0.532	0.712
	Within	237.111	142	1.670		
	Total	240.667	146			
19-team teach a course	Btwn	11.368	4	2.842	1.602	0.177
	Within	248.425	140	1.774		
	Total	259.793	144			
20-choose competent staff	Btwn	15.695	4	3.924	8.540	0.000
	Within	66.158	144	0.459		
	Total	81.852	148			
21-plan staff development program	Btwn	1.555	4	0.389	0.473	0.756
	Within	119.219	145	0.822		
	Total	120.773	149			
22-train and motivate staff	Btwn	0.765	4	0.191	0.381	0.822
	Within	72.402	144	0.503		

Competency	Groups	SS	df	MS	F	p
	Total	73.168	148			
23-fairly evaluate staff	Btwn	0.998	4	0.250	0.473	0.755
	Within	76.495	145	0.528		
	Total	77.493	149			
24-evaluate faculty	Btwn	15.210	4	3.803	1.610	0.175
	Within	335.456	142	2.362		
	Total	350.667	146			
25-manage staff resources	Btwn	14.118	4	3.530	5.601	0.000
	Within	91.375	145	0.630		
	Total	105.493	149			

Consulting the crosstabs function of the SPSS software for the ANOVA in Table 12 showed the precise number of responses in each category of the Likert scale for every competency. Crosstabs for each of the competencies with significant relationships in this ANOVA indicated that as age increased, respondents were more likely to find those competencies more important to the job of an administrator. Additionally, a corollary relationship appeared between the age of the respondent and the perception of importance up to the "66 or older" category, at which point the perception of importance decreased. These results are reported in Table 13 and reflect the percentage of each age group that chose either 5 (strongly agree) or 4 (agree) on the Likert scale. High percentages for each competency are highlighted.

Table 13

Crosstabs results for Significant Findings of ANOVA in Table 12: Importance to an Administrator' Job / Age (% responses indicating 4-"agree" and 5 –"strongly agree").

Competency	26-35 yrs	36-45 yrs	46-55 yrs	56-65 yrs	66 and older
1	0%	89.20%	94.30%	97.60%	87.50%
3	0%	57.10%	55.00%	65.90%	50.00%
11	0%	89.30%	80.30%	85.40%	62.50%
13	0%	89.30%	83.10%	95.00%	62.50%
14	0%	50.00%	59.20%	85.50%	50.00%
20	0%	100%	94.40%	87.80%	87.50%
25	0%	85.70%	94.40%	95.10%	100%

Assessing the relationship between sex and the perception of the importance of competencies to the job of an administrator was accomplished by computing an independent samples t-test. Significant relationships ($p<.05$) were evident for competencies four (ability to build consensus), five (ability to mediate and resolve conflict; to manage dissent), and ten (ability to identify problems and their solutions). Four and five are in the management group while ten is in the leadership group. Women perceived all three competencies to be more important to the job of an administrator than did men. Statistics are reported in Table 14.

Table 14

Independent Samples t-test: Importance to an Administrator's Job / Sex

Competency	Sex	M	SD	t	p	d
1- manage institutional resources	male	4.49	0.774	0.144	0.886	0.02
	female	4.47	0.816			
2-interpret data for decision making	male	4.61	0.561	-0.961	0.338	-0.09
	female	4.70	0.609			
3- create governance structure	male	3.76	1.054	0.723	0.471	0.13
	female	3.63	1.189			
4- build consensus	male	4.28	0.831	-2.126	0.035	-0.29
	female	4.56	0.774			
5- mediate conflict/manage dissent	male	4.30	0.761	-2.181	0.031	-0.26
	female	4.56	0.664			
6-delegate without micromanaging	male	4.28	0.721	-1.116	0.266	-0.14
	female	4.42	0.851			
7-build teams	male	4.31	0.731	-1.276	0.204	-0.16
	female	4.47	0.734			
8-manage personal time	male	4.33	0.861	-1.019	0.310	-0.15
	female	4.48	0.859			
9-speak and write clearly	male	4.78	0.470	-1.386	0.168	-0.09
	female	4.88	0.333			
10-identify problems/solutions	male	4.63	0.619	-2.559	0.012	-0.22
	female	4.84	0.407			
11-set institutional goals	male	4.31	0.825	1.183	0.239	0.19
	female	4.13	1.047			
12-consider diverse points of view	male	4.42	0.665	-1.586	0.115	-0.17
	female	4.59	0.635			
13-design a strategic plan	male	4.27	0.782	0.443	0.659	0.06
	female	4.20	0.912			
14-develop business partnerships	Male	3.78	1.116	0.423	0.673	0.08

Competency	Sex	M	SD	t	p	d
	female	3.70	1.303			
15-develop political relationships	male	3.76	1.206	0.920	0.359	0.20
	female	3.56	1.379			
16- plan new academic activities	male	3.90	1.118	0.526	0.599	0.11
	female	3.79	1.370			
17-relate research to teaching	male	3.60	1.164	-0.256	0.798	-0.05
	female	3.65	1.334			
18-develop interdisciplinary programs	male	3.16	1.232	-0.294	0.770	-0.06
	female	3.22	1.373			
19-team teach a course	male	2.75	1.238	-0.123	0.902	-0.03
	female	2.78	1.453			
20-choose competent staff	male	4.71	0.555	1.092	0.278	0.14
	female	4.56	0.941			
21-plan staff development program	male	4.17	0.922	-0.125	0.901	-0.02
	female	4.19	0.889			
22-train and motivate staff	male	4.52	0.652	-0.190	0.849	-0.02
	female	4.55	0.775			
23-fairly evaluate staff	male	4.46	0.668	-0.737	0.462	-0.09
	female	4.55	0.795			
24-evaluate faculty	male	3.43	1.507	-0.339	0.735	-0.09
	female	3.52	1.637			
25-manage staff resources	male	4.51	0.787	0.264	0.792	0.04
	female	4.47	0.925			

A one-way ANOVA was computed to explore the relationship between respondents' perceptions of the degree to which each competency was important to their jobs as administrators and the respondents' years of postsecondary administrative experience. Significant relationships at the $p < .01$ level were noted for competencies one

(ability to assess and manage institutional resources) of the management group and twenty-five (ability to manage staff resources in an effective manner) of the human relations group. Results are presented in Table 15.

Table 15

ANOVA: Importance to an Administrator's Job / Years of Experience

Comp	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	18.979	4	4.745	9.490	0.000
	Within	72.495	145	0.500		
	Total	91.473	149			
2-interpret data/ decision making	Btwn	1.158	4	0.290	0.866	0.486
	Within	48.502	145	0.334		
	Total	49.660	149			
3-create governance structure	Btwn	5.135	4	1.284	1.055	0.381
	Within	177.620	146	1.217		
	Total	182.755	150			
4-build consensus	Btwn	4.574	4	1.144	1.747	0.143
	Within	95.585	146	0.655		
	Total	100.159	150			
5-mediate conflict/manage dissent	Btwn	1.712	4	0.428	0.810	0.521
	Within	77.163	146	0.529		
	Total	78.874	150			
6-delegate w/o micromanaging	Btwn	3.493	4	0.873	1.462	0.217
	Within	87.196	146	0.597		
	Total	90.689	150			

Competency	Groups	SS	df	MS	F	p
7-build teams	Btwn	1.399	4	0.350	0.650	0.628
	Within	78.548	146	0.538		
	Total	79.947	150			
8-manage personal time	Btwn	1.609	4	0.402	0.518	0.723
	Within	111.814	144	0.776		
	Total	113.423	148			
9-speak and write clearly	Btwn	0.812	4	0.203	1.200	0.313
	Within	24.711	146	0.169		
	Total	25.523	150			
10-identify problems /solutions	Btwn	1.909	4	0.477	1.643	0.167
	Within	42.409	146	0.290		
	Total	44.318	150			
11-set institutional goals	Btwn	3.397	4	0.849	1.000	0.410
	Within	124.020	146	0.849		
	Total	127.417	150			
12-consider diverse points of view	Btwn	1.039	4	0.260	0.605	0.660
	Within	62.709	146	0.430		
	Total	63.748	150			
13-design a strategic plan	Btwn	4.241	4	1.060	1.543	0.193
	Within	99.633	145	0.687		
	Total	103.873	149			
14-develop business partnerships	Btwn	5.435	4	1.359	0.950	0.437

Competency	Groups	SS	df	MS	F	p
	Within	207.398	145	1.430		
	Total	212.833	149			
15-develop political relationships	Btwn	6.618	4	1.654	0.999	0.410
	Within	241.753	146	1.656		
	Total	248.371	150			
16-plan new academic activities	Btwn	4.244	4	1.061	0.706	0.589
	Within	215.053	143	1.504		
	Total	219.297	147			
17-relate research to teaching	Btwn	10.335	4	2.584	1.743	0.144
	Within	211.963	143	1.482		
	Total	222.297	147			
18-develop interdisciplinary programs	Btwn	8.208	4	2.052	1.245	0.295
	Within	235.711	143	1.648		
	Total	243.919	147			
19-team teach a course	Btwn	1.261	4	0.315	0.172	0.952
	Within	258.574	141	1.834		
	Total	259.836	145			
20-choose competent staff	Btwn	2.087	4	0.522	0.947	0.439
	Within	79.887	145	0.551		
	Total	81.973	149			
21-plan staff development program	Btwn	1.115	4	0.279	0.338	0.852
	Within	120.315	146	0.824		

Competency	Groups	SS	df	MS	F	p
	Total	121.430	150			
22-train and motivate staff	Btwn	4.120	4	1.030	2.156	0.077
	Within	69.273	145	0.478		
	Total	73.393	149			
23-fairly evaluate staff	Btwn	4.335	4	1.084	2.156	0.077
	Within	73.413	146	0.503		
	Total	77.748	150			
24-evaluate faculty	Btwn	1.225	4	0.306	0.124	0.973
	Within	351.748	143	2.460		
	Total	352.973	147			
25-manage staff resources	Btwn	9.769	4	2.442	3.715	0.007
	Within	95.980	146	0.657		
	Total	105.748	150			

Crosstabs of the ANOVA in Table 15 revealed that the significant findings for competencies one and twenty-five reflected a positive relationship between years of experience and the importance respondents perceived for the competencies. For the most part, as the amount of experience of the respondent increased, so did the respondent's perception of the importance of the competency (see Table 16 where highest percentages are highlighted).

Table 16

Crosstabs for Significant Findings of ANOVA in Table 15: Percentage of respondents in each experience group who indicated either 4 (agree) or 5 (strongly agree).

Competency	< 5 years	6-10 yrs	11-15 yrs	16-20 yrs	> 20 years
1	33.30%	93.30%	83.30%	94.70%	97.10%
24	33.30%	87.50%	87.50%	94.70%	95.70%

Ancillary Findings

Since the data from the final two Likert scales of the ACQ are not related to the research questions from Chapter One of this study, the statistical analyses pertaining to their data will be presented here as ancillary findings. These findings will be grouped into statistical analyses related to the respondents' perception of their competence immediately upon graduation and at the time of the survey.

Analysis of Likert #3: Perceived Competence Upon Graduation

By circling either 5 for "strongly agree" or 4 for "agree", most respondents "agreed" or "strongly agreed" that they perceived themselves to be competent upon graduation. The highest mean score (M = 4.32, SD=0.764) was for competency nine, ability to speak and write in a clear and concise manner. The lowest mean score (M = 2.98, SD=1.107) was for competency fifteen, ability to develop relationships with local, state, and national political figures. Table 17 reflects these descriptive data where institution 1 is Marshall/WVU and institution 2 is Ohio University.

Table 17

Mean Responses: Perception of Competence Upon Graduation

Competency	M (1)	M (2)	M (1+2)	SD (1+2)
1- assess/manage institutional resources	3.59	3.40	3.47	0.976
2 -gather, interpret data for decision making	3.59	3.40	3.47	0.976
3- create organizational governance structure	3.41	3.37	3.40	1.001
4 - build consensus	3.71	3.52	3.58	0.967
5 - mediate/resolve conflict; manage dissent	3.43	3.51	3.48	0.913
6 - delegate without micromanaging	3.46	3.55	3.52	1.010
7 - build/ facilitate teams; promote cooperation	3.90	3.74	3.79	0.925
8 - manage personal time	3.68	3.60	3.64	1.101
9 - speak/ write in clear and concise manner	4.38	4.30	4.32	0.724
10 - identify problems and their solutions	4.11	3.97	4.03	0.829
11 - set institutional goals	3.75	3.52	3.63	0.963
12 - consider diverse views; open to new ideas	4.22	3.93	4.03	0.825
13 - design strategic plan	3.55	3.49	3.53	1.057
14 - develop business partnerships	3.06	3.13	3.08	1.055
15 - develop political relationships	2.97	2.97	2.98	1.176
16 - plan/implement new academic activities	3.80	3.29	3.49	1.113
17 - relate research to teaching	3.62	3.49	3.54	1.071
18 - develop interdisciplinary programs	3.25	3.07	3.15	1.113
19 - team teach a course	3.62	3.16	3.15	1.187
20 - choose staff	3.79	3.63	3.71	1.011
21 - plan/implement staff development program	3.67	3.47	3.56	1.040
22 - train/ motivate staff	3.69	3.72	3.71	0.970
23 - evaluate staff	3.56	3.70	3.66	0.984
24 - evaluate faculty; recommend for promo./tenure	3.18	3.14	3.16	1.180
25 - manage staff resources	3.60	3.65	3.65	1.041

A one-way ANOVA relating competence upon graduation to age showed no significant difference ($p<.05$) between means of age ranges in any of the four competency groups (Table 18).

Table 18

ANOVA: Competence Upon Graduation / Age

Comp	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	5.425	4	1.356	1.433	0.226
	Within	138.191	146	0.947		
	Total	143.616	150			
2-interpret data/ decision making	Btwn	6.217	4	1.554	1.783	0.135
	Within	127.293	146	0.872		
	Total	133.510	150			
3-create governance structure	Btwn	2.410	4	0.603	0.595	0.667
	Within	147.947	146	1.013		
	Total	150.358	150			
4-build consensus	Btwn	1.662	4	0.415	0.436	0.783
	Within	139.212	146	0.954		
	Total	140.874	150			
5-mediate conflict/manage dissent	Btwn	1.328	4	0.332	0.390	0.816
	Within	124.288	146	0.851		
	Total	125.616	150			
6-delegate w/o micromanaging	Btwn	1.705	4	0.426	0.409	0.802
	Within	152.030	146	1.041		
	Total	153.735	150			

Competency	Groups	SS	df	MS	F	p
7-build teams	Btwn	1.752	4	0.438	0.498	0.737
	Within	128.288	146	0.879		
	Total	130.040	150			
8-manage personal time	Btwn	3.449	4	0.862	0.702	0.592
	Within	176.980	144	1.229		
	Total	180.430	148			
9-speak and write clearly	Btwn	1.236	4	0.309	0.589	0.671
	Within	76.539	146	0.524		
	Total	77.775	150			
10-identify problems /solutions	Btwn	1.515	4	0.379	0.535	0.710
	Within	103.319	146	0.708		
	Total	104.834	150			
11-set institutional goals	Btwn	1.730	4	0.432	0.464	0.762
	Within	135.104	145	0.932		
	Total	136.833	149			
12-consider diverse points of view	Btwn	1.678	4	0.419	0.606	0.659
	Within	100.998	146	0.692		
	Total	102.675	150			
13-design a strategic plan	Btwn	2.474	4	0.619	0.557	0.694
	Within	160.999	145	1.110		
	Total	163.473	149			
14-develop business partnerships	Btwn	2.529	4	0.632	0.548	0.701

Competency	Groups	SS	df	MS	F	p
	Within	166.156	144	1.154		
	Total	168.685	148			
15-develop political relationships	Btwn	2.493	4	0.623	0.448	0.774
	Within	203.268	146	1.392		
	Total	205.762	150			
16-plan new academic activities	Btwn	3.642	4	0.910	0.726	0.576
	Within	179.358	143	1.254		
	Total	183.000	147			
17-relate research to teaching	Btwn	4.659	4	1.165	1.015	0.402
	Within	164.098	143	1.148		
	Total	168.757	147			
18-develop interdisciplinary programs	Btwn	0.405	4	0.101	0.079	0.988
	Within	182.324	143	1.275		
	Total	182.730	147			
19-team teach a course	Btwn	2.739	4	0.685	0.471	0.757
	Within	205.021	141	1.454		
	Total	207.760	145			
20-choose competent staff	Btwn	2.747	4	0.687	0.675	0.610
	Within	147.493	145	1.017		
	Total	150.240	149			
21-plan staff development programs	Btwn	2.383	4	0.596	0.555	0.696
	Within	156.769	146	1.074		

Competency	Groups	SS	df	MS	F	p
	Total	159.152	150			
22-train and motivate staff	Btwn	2.674	4	0.668	0.705	0.590
	Within	137.566	145	0.949		
	Total	140.240	149			
23-fairly evaluate staff	Btwn	4.471	4	1.118	1.174	0.325
	Within	138.973	146	0.952		
	Total	143.444	150			
24-evaluate faculty	Btwn	10.283	4	2.571	1.852	0.122
	Within	198.494	143	1.388		
	Total	208.777	147			
25-manage staff resources	Btwn	6.254	4	1.564	1.472	0.214
	Within	154.019	145	1.062		
	Total	160.273	149			

An independent samples t-test based on sex, however, showed significant differences ($p<.05$) between mean scores of males and females for competencies nine (ability to speak and write in a clear and concise manner), twelve (ability to consider diverse points of view; to be open to new ideas), and twenty-one (ability to plan and implement a staff development program). Competencies nine and twelve are in the leadership group while twenty-one is in the human relations group. Females rated their competence upon graduation higher than males for all three of the competencies. These data are reflected in Table 19.

Table 19

Independent samples t-test: Competence upon Graduation. / Sex

Competency	Sex	M	SD	t	p	d
1- manage institutional resources	male	3.43	1.050	-0.405	0.686	-0.07
	female	3.50	0.891			
2-interpret data for decision making	male	3.86	1.026	-1.084	0.280	-0.16
	female	4.02	0.766			
3- create governance structure	male	3.43	0.978	0.632	0.529	0.11
	female	3.33	1.040			
4- build consensus	male	3.52	1.004	-0.973	0.332	-0.15
	female	3.67	0.874			
5- mediate conflict/manage dissent	male	3.45	0.953	-0.150	0.881	-0.02
	female	3.47	0.872			
6-delegate without micromanaging	male	3.55	1.003	0.881	0.380	0.15
	female	3.41	1.019			
7-build teams	male	3.83	0.973	0.625	0.533	0.10
	female	3.73	0.877			
8-manage personal time	male	3.65	1.070	0.147	0.883	0.03
	female	3.62	1.156			
9-speak and write clearly	male	4.23	0.786	-2.14	0.034	-0.26
	female	4.48	0.617			
10-identify problems/solutions	male	3.98	0.841	-0.956	0.341	-0.13
	female	4.11	0.838			
11-set institutional goals	male	3.65	1.023	0.420	0.675	0.07
	female	3.58	0.905			
12-consider diverse points of view	male	3.92	0.858	-2.356	0.020	-0.32
	female	4.23	0.750			
13-design a strategic plan	male	3.53	1.052	0.175	0.861	0.03
	female	3.50	1.008			
14-develop business partnerships	Male	3.11	1.000	0.157	0.875	0.03

Competency	Sex	M	SD	t	p	d
	female	3.08	1.121			
15-develop political relationships	male	3.11	1.126	1.705	0.090	0.33
	female	2.78	1.188			
16- plan new academic activities	male	3.39	1.080	-1.213	0.227	-0.23
	female	3.61	1.164			
17-relate research to teaching	male	3.40	1.081	-1.651	0.101	-0.30
	female	3.69	1.049			
18-develop interdisciplinary programs	male	3.01	1.174	-1.495	0.137	-0.28
	female	3.29	1.014			
19-team teach a course	male	3.19	1.205	-1.809	0.073	-0.36
	female	3.55	1.169			
20-choose competent staff	male	3.72	1.022	0.279	0.780	0.05
	female	3.67	1.024			
21-plan staff development program	male	3.41	1.060	-1.998	0.048	-0.34
	female	3.75	0.976			
22-train and motivate staff	male	3.71	1.024	-0.167	0.867	-0.03
	female	3.73	0.895			
23-fairly evaluate staff	male	3.67	1.001	0.400	0.689	0.07
	female	3.61	0.953			
24-evaluate faculty	male	3.15	1.208	-0.074	0.941	-0.01
	female	3.16	1.176			
25-manage staff resources	male	3.66	1.091	0.282	0.779	0.05
	female	3.61	0.986			

A one-way ANOVA relating years of postsecondary administrative experience to respondents' perceptions of their own competence upon graduation indicated significant differences ($p<.05$) between means of groups for three competencies: 21 (ability to

choose a competent staff), 22 (ability to train and motivate staff), and 25 (ability to manage staff resources in an effective manner. All three competencies are in the human relations group. Results are displayed in Table 20.

Table 20

ANOVA: Competence upon Graduation / Years of Experience

Competence	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	4.685	4	1.171	1.237	0.298
	Within	139.210	147	0.947		
	Total	143.895	151			
2-interpret data/ decision making	Btwn	4.308	4	1.077	1.214	0.307
	Within	130.402	147	0.887		
	Total	134.711	151			
3-create governance structure	Btwn	3.120	4	0.780	0.778	0.541
	Within	147.399	147	1.003		
	Total	150.520	151			
4-build consensus	Btwn	4.608	4	1.152	1.241	0.296
	Within	136.444	147	0.928		
	Total	141.053	151			
5-mediate conflict/manage dissent	Btwn	1.915	4	0.479	0.568	0.687
	Within	123.980	147	0.843		
	Total	125.895	151			
6-delegate w/o micromanaging	Btwn	7.571	4	1.893	1.901	0.113

Competency	Groups	SS	df	MS	F	p
	Within	146.402	147	0.996		
	Total	153.974	151			
7-build teams	Btwn	1.815	4	0.454	0.520	0.721
	Within	128.264	147	0.873		
	Total	130.079	151			
8-manage personal time	Btwn	5.224	4	1.306	1.070	0.374
	Within	177.049	145	1.221		
	Total	182.273	149			
9-speak and write clearly	Btwn	3.198	4	0.799	1.567	0.186
	Within	75.013	147	0.510		
	Total	78.211	151			
10-identify problems /solutions	Btwn	6.058	4	1.514	2.254	0.066
	Within	98.778	147	0.672		
	Total	104.836	151			
11-set institutional goals	Btwn	2.922	4	0.730	0.794	0.531
	Within	134.310	146	0.920		
	Total	137.232	150			
12-consider diverse points of view	Btwn	1.119	4	0.280	0.401	0.807
	Within	102.460	147	0.697		
	Total	103.579	151			
13-design a strategic plan	Btwn	6.507	4	1.627	1.511	0.202
	Within	157.228	146	1.077		

Competency	Groups	SS	df	MS	F	p
	Total	163.735	150			
14-develop business partnerships	Btwn	3.959	4	0.990	0.867	0.485
	Within	165.541	145	1.142		
	Total	169.500	149			
15-develop political relationships	Btwn	1.978	4	0.494	0.355	0.840
	Within	204.858	147	1.394		
	Total	206.836	151			
16-plan new academic activities	Btwn	5.284	4	1.321	1.069	0.374
	Within	177.965	144	1.236		
	Total	183.248	148			
17-relate research to teaching	Btwn	4.333	4	1.083	0.948	0.438
	Within	164.633	144	1.143		
	Total	168.966	148			
18-develop interdisciplinary programs	Btwn	9.109	4	2.277	1.881	0.117
	Within	174.341	144	1.211		
	Total	183.450	148			
19-team teach a course	Btwn	0.829	4	0.207	0.142	0.966
	Within	207.062	142	1.458		
	Total	207.891	146			
20-choose competent staff	Btwn	9.366	4	2.341	2.377	0.055
	Within	143.813	146	0.985		
	Total	153.179	150			

Competency	Groups	SS	df	MS	F	p
21-plan staff development programs	Btwn	11.143	4	2.786	2.722	0.032
	Within	150.436	147	1.023		
	Total	161.579	151			
22-train and motivate staff	Btwn	9.414	4	2.353	2.616	0.038
	Within	131.341	146	0.900		
	Total	140.755	150			
23-fairly evaluate staff	Btwn	5.665	4	1.416	1.481	0.211
	Within	140.545	147	0.956		
	Total	146.211	151			
24-evaluate faculty	Btwn	8.001	4	2.000	1.434	0.226
	Within	200.804	144	1.394		
	Total	208.805	148			
25-manage staff resources	Btwn	10.980	4	2.745	2.677	0.034
	Within	149.709	146	1.025		
	Total	160.689	150			

Crosstabs for the ANOVA in Table 20 suggested that the perception of competence was highest for those respondents having 11-15 years of experience. Respondents having administrative experience of different extents did not feel as competent upon graduation. Table 21 indicates these statistics as reflected by the percentages of the number of respondents in each group who indicated either 4 (agree) or 5 (strongly agree) on the ACQ.

Table 21

Crosstabs of Significant Findings of ANOVA in Table 20: Percentages in each "years of postsecondary administrative experience" group who indicated either 4 (agree) or 5 (strongly agree).

Competency	< 5 years	6-10 yrs.	11-15 yrs.	16-20 yrs.	> 20 yrs.
21	33.30%	62.50%	70.80%	38.50%	51%
22	66.60%	62.50%	79.20%	48.70%	63.80%
25	66.60%	62.50%	73.90%	43.60%	60.00%

An independent samples t-test relating the institution from which respondents received their degrees in higher education administration to their perceptions of competency upon graduation resulted in the discovery of significant differences in the mean responses for three competencies: 12 (ability to consider diverse points of view, $p<.05$), 16 (ability to plan and implement new academic activities, $p<.01$) and 19 (ability to team teach a course, $p<.05$). In all cases, Marshall/WVU (institution 1) showed significantly higher mean scores than Ohio University (institution 2) as reflected in Table 22.

Table 22

Independent samples t-test: Competency Upon Graduation / Institution

Competency	Inst.	M	SD	t	p	d
1- manage institutional resources	1	3.59	0.976	1.141	0.256	0.19
	2	4.40				
2-interpret data for decision making	1	3.59	0.976	0.764	0.446	0.11
	2	3.40				

Competency	Inst.	M	SD	t	p	d
3- create governance structure	1	3.41	1.001	0.272	0.786	0.04
	2	3.37				
4- build consensus	1	3.71	0.967	1.258	0.210	0.20
	2	3.52				
5- mediate conflict/manage dissent	1	3.43	0.913	-0.507	0.613	-0.08
	2	3.51				
6-delegate without micromanaging	1	3.46	1.010	-0.543	0.588	-0.09
	2	3.55				
7-build teams	1	3.90	0.925	1.098	0.274	0.17
	2	3.74				
8-manage personal time	1	3.68	1.101	0.393	0.695	0.07
	2	3.60				
9-speak and write clearly	1	4.38	0.724	0.688	0.493	0.08
	2	4.30				
10-identify problems/solutions	1	4.11	0.829	1.054	0.293	0.15
	2	3.97				
11-set institutional goals	1	3.75	0.963	1.410	0.161	0.22
	2	3.52				
12-consider diverse points of view	1	4.22	0.825	2.158	0.033	0.29
	2	3.93				
13-design a strategic plan	1	3.55	1.057	0.317	0.752	0.05
	2	3.49				
14-develop business partnerships	1	3.06	1.055	-0.362	0.718	-0.06
	2	3.13				
15-develop political relationships	1	2.97	1.176	0.014	0.989	0.00
	2	2.97				
16- plan new academic activities	1	3.80	1.113	2.793	0.006	0.51
	2	3.29				
17-relate research to teaching	1	3.62	1.071	0.678	0.499	0.12

Competency	Inst.	M	SD	t	p	d
	2	3.49				
18-develop interdisciplinary programs	1	3.25	1.113	0.966	0.336	0.18
	2	3.07				
19-team teach a course	1	3.62	1.187	2.267	0.025	0.45
	2	3.16				
20-choose competent staff	1	3.79	1.011	0.940	0.349	0.16
	2	3.63				
21-plan staff development program	1	3.67	1.040	1.137	0.257	0.20
	2	3.47				
22-train and motivate staff	1	3.69	0.970	-0.188	0.851	-0.03
	2	3.72				
23-fairly evaluate staff	1	3.56	0.984	-0.899	0.370	-0.15
	2	3.70				
24-evaluate faculty	1	3.18	1.180	0.204	0.839	0.04
	2	3.14				
25-manage staff resources	1	3.60	1.041	-0.279	0.781	-0.05
	2	3.65				

Analysis of Likert #4: Perceived Competence at the Time of the Survey

At the time of survey, most responses for competencies were in the realm of "agree" to "strongly agree." The low mean score (M = 3.63, SD = 1.127) was for competency eighteen of the curriculum group (ability to develop interdisciplinary programs) and the high mean (M = 4.67, SD=0.527) was for competency nine of the leadership group (ability to speak and write in a clear and concise manner). Please refer to Table 23 for descriptive statistics reflecting these data where the high and low group means are highlighted.

Table 23

Mean Scores: Perception of Competence at the Time of the Survey.

Competency	M (1)	M (2)	M (1+2)	SD (1+2)
1- assess/manage institutional resources	4.25	4.36	4.31	0.752
2 -gather, interpret data for decision making	4.50	4.48	4.46	0.621
3- create organizational governance structure	4.17	4.00	3.98	0.933
4 - build consensus	4.33	4.26	4.26	0.720
5 - mediate/resolve conflict; manage dissent	4.17	4.27	4.19	0.759
6 - delegate without micromanaging	4.50	4.35	4.23	0.766
7 - build/ facilitate teams; promote cooperation	4.42	4.33	4.34	0.759
8 - manage personal time	4.00	4.04	4.07	0.956
9 - speak/ write in clear and concise manner	4.50	4.69	4.67	0.527
10 - identify problems and their solutions	4.42	4.54	4.50	0.633
11 - set institutional goals	4.42	4.20	4.22	0.772
12 - consider diverse views; open to new ideas	4.42	4.40	4.48	0.600
13 - design strategic plan	4.25	4.26	4.18	0.825
14 - develop business partnerships	3.83	3.88	3.82	1.024
15 - develop political relationships	3.67	3.70	3.70	1.089
16 - plan/implement new academic activities	4.00	4.02	4.10	0.952
17 - relate research to teaching	4.09	3.99	4.00	0.954
18 - develop interdisciplinary programs	3.64	3.59	3.63	1.127
19 - team teach a course	3.55	3.77	3.84	1.088
20 - choose staff	4.42	4.54	4.50	0.655
21 - plan/implement staff development program	4.92	4.14	4.38	2.665
22 - train/ motivate staff	4.42	4.42	4.36	0.730
23 - evaluate staff	3.92	4.46	4.36	0.719
24 - evaluate faculty	3.27	3.76	3.76	1.222
25 - manage staff resources	4.17	4.48	4.37	0.738

To explore the relationship between perceived competency at the time of the survey and the age of the respondent, a one-way ANOVA was computed. Mean responses for competency thirteen of the leadership group (ability to design a strategic plan) were shown to be significantly different ($p<.05$) with respect to age ranges as reflected in Table 24.

Table 24

ANOVA: Competence at the Time of the Survey / Age.

Competence	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	4.77	4	1.192	2.185	0.074
	Within	79.124	145	0.546		
	Total	83.893	149			
2-interpret data/ decision making	Btwn	3.436	4	0.860	2.317	0.060
	Within	53.433	144	0.371		
	Total	56.872	148			
3-create governance structure	Btwn	4.429	4	1.107	1.280	0.281
	Within	125.464	145	0.865		
	Total	129.893	149			
4-build consensus	Btwn	0.222	4	0.056	0.106	0.980
	Within	76.151	145	0.525		
	Total	76.373	149			
5-mediate conflict/manage dissent	Btwn	1.526	4	0.382	0.660	0.621
	Within	83.867	145	0.578		
	Total	85.393	149			

Competency	Groups	SS	df	MS	F	d
6-delegate w/o micromanaging	Btwn	1.353	4	0.338	0.567	0.687
	Within	86.520	145	0.597		
	Total	87.873	149			
7-build teams	Btwn	0.146	4	0.036	0.061	0.993
	Within	85.828	145	0.592		
	Total	85.973	149			
8-manage personal time	Btwn	2.848	4	0.712	0.780	0.540
	Within	130.477	143	0.912		
	Total	133.324	147			
9-speak and write clearly	Btwn	0.584	4	0.146	0.517	0.723
	Within	41.191	146	0.282		
	Total	41.775	150			
10-identify problems /solutions	Btwn	1.492	4	0.373	0.932	0.447
	Within	58.008	145	0.400		
	Total	59.500	149			
11-set institutional goals	Btwn	1.574	4	0.393	0.665	0.617
	Within	85.205	144	0.592		
	Total	86.779	148			
12-consider diverse points of view	Btwn	0.884	4	0.221	0.609	0.657
	Within	52.589	145	0.363		
	Total	53.473	149			

Competency	Groups	SS	df	MS	F	p
13-design a strategic plan	Btwn	6.630	4	1.658	2.574	0.040
	Within	92.726	144	0.644		
	Total	99.356	148			
14-develop business partnerships	Btwn	7.792	4	1.948	1.931	0.109
	Within	144.283	143	1.009		
	Total	152.074	147			
15-develop political relationships	Btwn	4.151	4	1.038	0.891	0.471
	Within	168.842	145	1.164		
	Total	172.993	149			
16-plan new academic activities	Btwn	5.063	4	1.266	1.383	0.243
	Within	129.957	142	0.915		
	Total	135.020	146			
17-relate research to teaching	Btwn	2.971	4	0.743	0.764	0.550
	Within	137.968	142	0.972		
	Total	140.939	146			
18-develop interdisciplinary programs	Btwn	0.402	4	0.100	0.076	0.990
	Within	188.918	142	1.330		
	Total	189.320	146			
19-team teach a course	Btwn	4.809	4	1.202	1.015	0.402
	Within	165.881	140	1.185		
	Total	170.690	144			
20-choose competent staff	Btwn	1.640	4	0.410	0.929	0.449

Competency	Groups	SS	df	MS	F	p
	Within	63.594	144	0.442		
	Total	65.235	148			
21-plan staff development programs	Btwn	2.737	4	0.684	0.941	0.442
	Within	105.403	145	0.727		
	Total	108.140	149			
22-train and motivate staff	Btwn	2.394	4	0.599	1.130	0.345
	Within	76.304	144	0.530		
	Total	78.698	148			
23-fairly evaluate staff	Btwn	0.733	4	0.183	0.351	0.843
	Within	75.827	145	0.523		
	Total	76.560	149			
24-evaluate faculty	Btwn	5.603	4	1.401	0.929	0.449
	Within	214.085	142	1.508		
	Total	219.687	146			
25-manage staff resources	Btwn	2.601	4	0.650	1.198	0.314
	Within	78.739	145	0.543		
	Total	81.340	149			

Crosstabs for the ANOVA in Table 24 indicated that as age increased, respondents tended to "agree" or "strongly agree" that they felt competent to design a strategic plan at the time of the survey. Only one person of the 149 people who responded to this question indicated that s/he strongly disagreed that s/he felt competent

at the time of survey. In the age range 56- 65 years, no one indicated *"strongly disagree"* or *"disagree"* and in the age range of 66 years and older, no one responded by choosing "strongly disagree", "disagree" or even "neutral". Crosstab percentages are presented in Table 25. For each age range, the percentage of those respondents choosing 4 (agree) or 5 (strongly agree) are shown.

Table 25

Crosstabs of Significant Findings from ANOVA of Table 24: Percentages of "agree" (A) and "strongly agree" (SA) responses.

Competency 13	26-35 yrs	36-45 yrs	46-55 yrs	56-65 yrs	66 and older
Percent SA or A	0.00%	71.40%	87.30%	85.40%	100%

An independent samples t-test was computed to determine if there were any significant differences in mean values as sex was related to perceived competency at the time of survey. Significant differences were indicated with regard to competencies twelve (ability to consider diverse points of view; to be open to new ideas, $p<.01$), seventeen (ability to relate research to teaching, $p<.05$), and nineteen (ability to team teach a course, $p<.05$). Competency twelve is from the leadership group while seventeen and nineteen are from the curriculum group. In all cases, females indicated a higher perceived competence in these abilities at the time of survey, as indicated in Table 26.

Table 26

Independent samples t-test: Competence at the Time of the Survey / Sex

Competency	Sex	M	SD	t	p	d
1- manage institutional resources	male	4.39	0.762	1.439	0.152	0.18
	female	4.21	0.722			
2-interpret data for decision making	male	4.48	0.571	0.457	0.648	0.05
	female	4.43	0.665			
3- create governance structure	male	4.04	0.890	1.142	0.255	0.18
	female	3.86	0.998			
4- build consensus	male	4.23	0.721	-0.607	0.545	-0.07
	female	4.30	0.710			
5- mediate conflict/manage dissent	male	4.16	0.740	-0.514	0.608	-0.07
	female	4.22	0.792			
6-delegate without micromanaging	male	4.27	0.813	0.578	0.564	0.07
	female	4.19	0.715			
7-build teams	male	4.30	0.808	-0.624	0.534	-0.08
	female	4.38	0.705			
8-manage personal time	male	4.10	0.951	0.308	0.759	0.05
	female	4.05	0.948			
9-speak and write clearly	male	4.64	0.531	-0.734	0.464	-0.06
	female	4.70	0.525			
10-identify problems/solutions	male	4.45	0.667	-0.884	0.378	-0.09
	female	4.54	0.591			
11-set institutional goals	male	4.26	0.814	0.749	0.455	0.10
	female	4.16	0.723			
12-consider diverse points of view	male	4.35	0.652	-3.215	0.002	-0.30
	female	4.65	0.481			
13-design a strategic plan	male	4.20	0.852	0.334	0.739	0.05
	female	4.16	0.787			
14-develop business partnerships	Male	3.82	0.965	0.188	0.851	0.03

Competency	Sex	M	SD	t	p	d
	female	3.79	1.097			
15-develop political relationships	male	3.77	1.040	1.377	0.171	0.25
	female	3.52	1.120			
16- plan new academic activities	male	4.01	0.896	-1.018	0.310	-0.17
	female	4.18	1.048			
17-relate research to teaching	male	3.80	0.974	-2.279	0.024	-0.37
	female	4.18	0.967			
18-develop interdisciplinary programs	male	3.46	1.091	-1.539	0.126	-0.29
	female	3.76	1.197			
19-team teach a course	male	3.64	1.046	-2.071	0.040	-0.38
	female	4.02	1.123			
20-choose competent staff	male	4.48	0.689	-0.288	0.774	-0.03
	female	4.51	0.644			
21-plan staff development program	male	4.06	0.929	-1.935	0.055	-0.27
	female	4.33	0.718			
22-train and motivate staff	male	4.30	0.796	-1.136	0.258	-0.14
	female	4.44	0.642			
23-fairly evaluate staff	male	4.36	0.708	0.101	0.920	0.01
	female	4.35	0.744			
24-evaluate faculty	male	3.71	1.202	-0.223	0.824	-0.05
	female	3.75	1.287			
25-manage staff resources	male	4.40	0.768	0.726	0.469	0.09
	female	4.31	0.710			

A one-way ANOVA relating years of postsecondary administrative experience to perceived competence at the time of survey revealed no significant differences ($p<.05$) in mean responses with regard to competencies in any of the four groups (Table 27).

Table 27

ANOVA: Competence at the Time of the Survey / Years of Experience

Competency	Groups	SS	df	MS	F	p
1-manage inst. Resources	Btwn	3.939	4	0.985	1.787	0.134
	Within	80.432	146	0.551		
	Total	84.371	150			
2-interpret data/ decision making	Btwn	1.805	4	0.451	1.181	0.321
	Within	55.369	145	0.382		
	Total	57.173	149			
3-create governance structure	Btwn	0.974	4	0.243	0.276	0.893
	Within	128.920	146	0.883		
	Total	129.894	150			
4-build consensus	Btwn	1.792	4	0.448	0.870	0.483
	Within	75.136	146	0.515		
	Total	76.927	150			
5-mediate conflict/manage dissent	Btwn	2.135	4	0.534	0.929	0.449
	Within	83.905	146	0.575		
	Total	86.040	150			
6-delegate w/o micromanaging	Btwn	4.204	4	1.051	1.832	0.126
	Within	83.730	146	0.573		
	Total	87.934	150			
7-build teams	Btwn	2.059	4	0.515	0.894	0.469
	Within	84.034	146	0.576		
	Total	86.093	150			

Competency	Groups	SS	df	MS	F	p
8-manage personal time	Btwn	2.166	4	0.542	0.591	0.670
	Within	132.022	144	0.917		
	Total	134.188	148			
9-speak and write clearly	Btwn	0.706	4	0.176	0.630	0.642
	Within	41.183	147	0.280		
	Total	41.888	151			
10-identify problems /solutions	Btwn	1.708	4	0.427	1.074	0.371
	Within	58.040	146	0.398		
	Total	59.748	150			
11-set institutional goals	Btwn	1.853	4	0.463	0.777	0.542
	Within	86.440	145	0.596		
	Total	88.293	149			
12-consider diverse points of view	Btwn	1.639	4	0.410	1.148	0.336
	Within	52.096	146	0.357		
	Total	53.735	150			
13-design a strategic plan	Btwn	5.487	4	1.372	2.087	0.085
	Within	95.286	145	0.657		
	Total	100.773	149			
14-develop business partnerships	Btwn	0.627	4	0.157	0.148	0.964
	Within	152.837	144	1.061		
	Total	153.463	148			
15-develop political relationships	Btwn	1.975	4	0.494	0.417	0.796

Competency	Groups	SS	df	MS	F	p
	Within	172.767	146	1.183		
	Total	174.742	150			
16-plan new academic activities	Btwn	1.098	4	0.274	0.291	0.883
	Within	134.760	143	0.942		
	Total	135.858	147			
17-relate research to teaching	Btwn	5.286	4	1.322	1.383	0.243
	Within	136.686	143	0.956		
	Total	141.973	147			
18-develop interdisciplinary programs	Btwn	7.857	4	1.964	1.531	0.196
	Within	183.413	143	1.283		
	Total	191.270	147			
19-team teach a course	Btwn	1.425	4	0.356	0.295	0.880
	Within	169.945	141	1.205		
	Total	171.370	145			
20-choose competent staff	Btwn	0.507	4	0.127	0.283	0.889
	Within	64.986	145	0.448		
	Total	65.493	149			
21-plan staff development programs	Btwn	3.098	4	0.774	1.076	0.371
	Within	105.074	146	0.720		
	Total	108.172	150			
22-train and motivate staff	Btwn	1.340	4	0.335	0.627	0.644
	Within	77.493	145	0.534		

Competency	Groups	SS	df	MS	F	p
	Total	78.833	149			
23-fairly evaluate staff	Btwn	1.933	4	0.483	0.940	0.443
	Within	75.034	146	0.514		
	Total	76.967	150			
24-evaluate faculty	Btwn	2.847	4	0.712	0.469	0.758
	Within	216.903	143	1.517		
	Total	219.750	147			
25-manage staff resources	Btwn	4.228	4	1.057	1.998	0.098
	Within	77.255	146	0.529		
	Total	81.483	150			

When relating the institution from which the respondent received his or her degree in higher education administration to perceived competence at the time of survey, significant differences ($p<.05$) in mean responses were noted for three competencies using an independent samples t-test. Those competencies were: six (ability to delegate without micromanaging), twenty-three (ability to fairly evaluate staff), and twenty-five (ability to manage staff resources in an effective manner).Competency six is part of the management group while competencies twenty-three and twenty-five are part of the human relations group. Graduates of the Marshall/WVU Co-op program rated their competence higher in the ability to delegate without micromanaging while Ohio University alumni (institution 2), perceived themselves to be more competent in the

ability to fairly evaluate staff and manage staff resources effectively. Data for these competencies are recorded in Table 28.

Table 28

Independent samples t-test: Competence at the Time of the Survey / Institution.

Competency	Inst.	M	SD	t	p	d
1- manage institutional resources	1	4.25	0.752	-0.536	0.593	-0.07
	2	4.36				
2-interpret data for decision making	1	4.50	0.621	-0.280	0.780	-0.03
	2	4.48				
3- create governance structure	1	4.17	0.933	-0.519	0.605	-0.08
	2	4.00				
4- build consensus	1	4.33	0.720	0.221	0.826	0.03
	2	4.26				
5- mediate conflict/manage dissent	1	4.17	0.759	-1.661	0.099	-0.21
	2	4.27				
6-delegate without micromanaging	1	4.50	0.766	-2.162	0.032	-0.27
	2	4.35				
7-build teams	1	4.42	0.759	-0.012	0.991	0.00
	2	4.33				
8-manage personal time	1	4.00	0.956	0.155	0.877	0.02
	2	4.04				
9-speak and write clearly	1	4.50	0.527	-0.806	0.421	-0.07
	2	4.69				
10-identify problems/solutions	1	4.42	0.633	-1.151	0.252	-0.12
	2	4.54				
11-set institutional goals	1	4.42	0.772	0.038	0.970	0.00
	2	4.20				
12-consider diverse points of view	1	4.42	0.600	1.566	0.119	0.16
	2	4.40				

Competency	Inst.	M	SD	t	p	d
13-design a strategic plan	1	4.25	0.825	-1.337	0.183	-0.18
	2	4.26				
14-develop business partnerships	1	3.83	1.024	-1.116	0.266	-0.19
	2	3.88				
15-develop political relationships	1	3.67	1.089	-0.465	0.643	-0.08
	2	3.70				
16- plan new academic activities	1	4.00	0.952	1.158	0.249	0.19
	2	4.02				
17-relate research to teaching	1	4.09	0.954	0.040	0.968	0.01
	2	3.99				
18-develop interdisciplinary programs	1	3.64	1.127	0.183	0.855	0.04
	2	3.59				
19-team teach a course	1	3.55	1.088	0.813	0.418	0.15
	2	3.77				
20-choose competent staff	1	4.42	0.655	-1.131	0.260	-0.13
	2	4.54				
21-plan staff development program	1	4.92	2.665	0.345	0.730	0.05
	2	4.14				
22-train and motivate staff	1	4.42	0.730	-1.205	0.230	-0.15
	2	4.42				
23-fairly evaluate staff	1	3.92	0.719	-2.249	0.027	-0.28
	2	4.46				
24-evaluate faculty	1	3.27	1.222	-0.189	0.850	-0.04
	2	3.76				
25-manage staff resources	1	4.17	0.738	-2.434	0.016	-0.29
	2	4.48				

Paired Samples Analyses

Finally, paired samples t-tests and a Wilcoxon analysis were computed to explore the relationships between three of the Likert scales. The first paired samples test explored the difference between the respondents' perceptions of whether or not competencies were addressed in their plan of study and the respondents' perception of their competence at the time of the survey. Results indicated that the means of all paired samples but one correlated suggesting that the linear relationship of the means in both Likerts was similar. Thus, if the respondent perceived that the competency was addressed in the program of study, the respondent also perceived himself or herself to be competent at the time of the survey. In the case of competency 21, respondents generally perceived that the competency was not addressed in their program of study (M = 2.82) but they, nevertheless, felt very competent (M = 4.38) in their ability to plan a staff development program at the time of the survey. Results from this analysis can be reviewed in Table 29.

Table 29

Paired Samples t-test: Program of Study / Competence at the Time of the Survey

Competency	Likert	M	SD	r	t	p	d
1- manage institutional resources	POS	3.37	1.091	0.358	-10.594	0.000	0.089
	Now	4.31					
2-interpret data for decision making	POS	3.91	0.921	0.255	-7.230	0.002	0.076
	Now	4.46					
3- create governance structure	POS	3.54	1.036	0.446	-5.105	0.000	0.084
	Now	3.97					
4- build consensus	POS	3.21	1.070	0.365	-12.098	0.000	0.087
	Now	4.26					

Competency	Likert	M	SD	r	t	p	d
5- mediate conflict/manage dissent	POS	3.06	1.200	0.195	-11.662	0.016	0.098
	Now	4.20					
6-delegate without micromanaging	POS	2.91	1.237	0.194	-13.226	0.017	0.101
	Now	4.25					
7-build teams	POS	3.37	1.149	0.322	-10.415	0.000	0.093
	Now	4.34					
8-manage personal time	POS	2.69	1.287	0.379	-13.111	0.000	0.105
	Now	4.07					
9-speak and write clearly	POS	4.19	0.990	0.219	-5.901	0.007	0.080
	Mow	4.66					
10-identify problems/solutions	POS	3.90	0.967	0.331	-7.571	0.000	0.079
	Now	4.50					
11-set institutional goals	POS	3.66	1.052	0.432	-6.598	0.000	0.086
	Now	4.23					
12-consider diverse points of view	POS	3.91	0.955	0.418	-7.501	0.000	0.078
	Now	4.49					
13-design a strategic plan	POS	3.41	1.261	0.319	-7.448	0.000	0.103
	Now	4.18					
14-develop business partnerships	POS	2.60	1.173	0.469	-12.664	0.000	0.096
	Now	3.81					
15-develop political relationships	POS	2.77	1.043	0.597	-10.85	0.000	0.085
	Now	3.70					
16- plan new academic activities	POS	3.44	1.106	0.467	-7.137	0.000	0.091
	Now	4.09					
17-relate research to teaching	POS	3.50	1.134	0.501	-5.220	0.000	0.093
	Now	3.99					
18-develop interdisciplinary programs	POS	2.74	1.108	0.581	-9.568	0.000	0.091
	Now	3.61					
19-team teach a course	POS	2.66	1.310	0.423	-10.806	0.000	0.108

Competency	Likert	M	SD	r	t	p	d
	Now	3.83					
20-choose competent staff	POS	2.89	1.273	0.228	-15.518	0.005	0.104
	Now	4.51					
21-plan staff development program	POS	2.82	2.839	0.072	-6.735	0.381	0.231
	Now	4.38					
22-train and motivate staff	POS	2.95	1.307	0.224	-13.248	0.006	0.107
	Now	4.37					
23-fairly evaluate staff	POS	3.19	1.248	0.268	-11.544	0.001	0.102
	Now	4.36					
24-evaluate faculty	POS	2.79	1.195	0.557	-9.771	0.000	0.098
	Now	3.75					
25-manage staff resources	POS	3.19	1.246	0.267	-11.693	0.001	0.101
	Now	4.38					

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The second paired samples correlation compared the perceived importance to the job of an administrator and perceived competence at the time of graduation. Significant positive correlations ($p<.05$) were noted for all but four competencies. Positive correlations indicate that if the competency was perceived to be important to the job of an administrator, respondents tended to feel competent in that ability at the time of graduation. In the case of competencies six (ability to delegate without micromanaging), twenty (ability to choose a competent staff), and twenty-five (ability to manage staff resources) respondents felt the competency was slightly important to the job of an administrator but they did not feel competent in these abilities upon graduation. In the case of competency 23, respondents rated their competency upon graduation only slightly

higher than their opinion of its importance to an administrator's job. The data are reflected in Table 30.

Table 30

Paired Samples t-test: Importance to an Administrator's Job / Competence at the Time of Graduation

Competency	Likert	M	SD	r	t	p	d
1- manage institutional resources	Job	3.49	1.135	0.187	10.934	0.022	0.093
	Grad	3.31					
2-interpret data for decision making	Job	3.87	0.971	0.265	9.422	0.001	0.079
	Grad	3.93					
3- create governance structure	Job	3.49	1.202	0.351	3.250	0.000	0.098
	Grad	3.54					
4- build consensus	Job	3.32	1.071	0.290	9.419	0.000	0.087
	Grad	3.17					
5- mediate conflict/manage dissent	Job	3.16	1.067	0.170	10.986	0.037	0.087
	Grad	2.97					
6-delegate without micromanaging	Job	3.06	1.187	0.139	8.772	0.088	0.097
	Grad	2.77					
7-build teams	Job	3.46	1.008	0.282	7.182	0.000	0.082
	Grad	3.30					
8-manage personal time	Job	2.76	1.231	0.248	7.386	0.002	0.101
	Grad	2.64					
9-speak and write clearly	Job	4.10	0.713	0.321	8.617	0.000	0.058
	Grad	4.24					
10-identify problems/solutions	Job	3.98	0.786	0.413	10.841	0.000	0.064
	Grad	3.82					
11-set institutional goals	Job	3.76	1.097	0.328	6.816	0.000	0.090
	Grad	3.55					
12-consider diverse points of view	Job	3.98	0.875	0.319	6.744	0.000	0.072

Competency	Likert	M	SD	r	t	p	d
	Grad	3.84					
13-design a strategic plan	Job	3.35	1.179	0.249	7.318	0.002	0.097
	Grad	3.46					
14-develop business partnerships	Job	2.69	1.300	0.343	6.638	0.000	0.107
	Grad	2.53					
15-develop political relationships	Job	2.83	1.261	0.484	7.083	0.000	0.103
	Grad	2.74					
16- plan new academic activities	Job	3.41	1.176	0.484	4.168	0.000	0.098
	Grad	3.43					
17-relate research to teaching	Job	3.54	1.102	0.528	1.361	0.000	0.092
	Grad	3.47					
18-develop interdisciplinary programs	Job	2.70	1.239	0.463	0.804	0.000	0.103
	Grad	2.76					
19-team teach a course	Job	2.61	1.304	0.467	-4.872	0.000	0.109
	Grad	2.69					
20-choose competent staff	Job	3.02	1.274	-0.025	9.096	0.760	0.105
	Grad	2.82					
21-plan staff development program	Job	2.86	1.140	0.325	6.825	0.000	0.093
	Grad	2.82					
22-train and motivate staff	Job	2.98	1.143	0.200	10.360	0.015	0.094
	Grad	2.94					
23-fairly evaluate staff	Job	3.08	1.135	0.144	9.164	0.080	0.093
	Grad	3.25					
24-evaluate faculty	Job	2.80	1.407	0.495	2.942	0.00	0.116
	Grad	2.76					
25-manage staff resources	Job	3.32	1.320	0.037	7.910	0.659	0.108
	Grad	3.09					

The third paired-samples correlation related the perception of the competencies having been addressed in the program of study to perceived importance to an administrator's job. A positive correlation indicated a linear relationship between two means; if a competency was perceived to be important to an administrator's job, it was perceived to have been similarly addressed in the program of study. Positive correlations existed for all but six competencies. Respondents perceived the abilities to mediate conflict and manage dissent, delegate without micromanaging, build teams, choose a competent staff, fairly evaluate staff, and manage staff resources as very important to the job of an administrator. However, respondents perceived that those same abilities were either marginally addressed or not well addressed in their programs of study. Results can be viewed in Table 31.

Table 31

Paired Samples t-test: Program of Study/ Importance to Administrator's Job

Competency	Likert	M	SD	r	t	p	d
1- manage institutional resources	POS	3.36	1.244	0.161	-11.092	0.049	0.102
	Job	4.49					
2-interpret data for decision making	POS	3.89	1.045	0.205	-8.982	0.012	0.085
	Job	4.66					
3- create governance structure	POS	3.53	1.319	0.234	-1.728	0.004	0.107
	Job	3.72					
4- build consensus	POS	3.19	1.191	0.244	-12.440	0.003	0.097
	Job	4.40					

Competency	Likert	M	SD	r	t	p	d
5- mediate conflict/manage dissent	POS	3.05	1.248	0.085	-13.567	0.297	0.102
	Job	4.42					
6-delegate without micromanaging	POS	2.91	1.295	0.114	-13.767	0.163	0.105
	Job	4.36					
7-build teams	POS	3.36	1.216	0.212	-10.371	0.209	0.099
	Job	4.39					
8-manage personal time	POS	2.68	1.363	0.258	-15.265	0.001	0.112
	Job	4.39					
9-speak and write clearly	POS	4.19	0.955	0.232	-8.269	0.004	0.078
	Job	4.83					
10-identify problems/solutions	POS	3.89	0.941	0.332	-10.895	0.000	0.077
	Job	4.72					
11-set institutional goals	POS	3.64	1.218	0.297	-6.016	0.000	0.099
	Job	4.24					
12-consider diverse points of view	POS	3.89	1.039	0.307	-7.205	0.000	0.085
	Job	4.50					
13-design a strategic plan	POS	3.40	1.345	0.214	-7.711	0.009	0.110
	Job	4.25					
14-develop business partnerships	POS	2.59	1.326	0.395	-10.896	0.000	0.108
	Job	3.77					
15-develop political relationships	POS	2.76	1.337	0.427	-8.520	0.000	0.109
	Job	3.69					
16- plan new academic activities	POS	3.41	1.28	0.426	-4.304	0.000	0.105
	Job	3.86					
17-relate research to teaching	POS	3.47	1.131	0.585	-1.744	0.000	0.093
	Job	3.64					
18-develop interdisciplinary programs	POS	2.72	1.237	0.529	-4.784	0.000	0.102
	Job	3.20					
19-team teach a course	POS	2.63	1.254	0.553	-1.584	0.000	0.104

Competency	Likert	M	SD	r	t	p	d
	Job	2.79					
20-choose competent staff	POS	2.88	1.471	-0.046	-14.767	0.579	0.120
	Job	4.65					
21-plan staff development program	POS	2.81	1.326	0.246	-12.827	0.002	0.108
	Job	4.19					
22-train and motivate staff	POS	2.94	1.286	0.228	-15.112	0.005	0.105
	Job	4.53					
23-fairly evaluate staff	POS	3.18	1.363	0.088	-11.880	0.284	0.111
	Job	4.50					
24-evaluate faculty	POS	2.78	1.490	0.464	-5.791	0.000	0.123
	Job	3.49					
25-manage staff resources	POS	3.19	1.484	-0.012	-10.857	0.879	0.121
	Job	4.50					

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Finally, in order to determine the relationship of respondents' perceived competence at graduation to their perceived competence at the time of survey, the Wilcoxon Matched-pairs Sums Test was computed using SPSS software. Wilcoxon is useful when determining whether the numbers of a pair (graduation 1 vs. now 1, for instance) differ in size. It is preferred over a t-test that is thought to be too vulnerable to deviations from a normal distribution. It is a nonparametrical test, one that makes no distributional assumptions. Wilcoxon ranks the absolute values of the differences between paired data samples and calculates a statistic based on the number of negative and positive differences. It was used in this instance to determine if the differences between the perceived competences at graduation were significantly different ($p<.05$) from perceived competences at the time of survey. All paired-samples tests were

significant at the alpha .01 level, indicating that respondents seemed to perceive themselves significantly more competent at the time of the survey than upon graduation. Table 32 displays the Wilcoxon results.

Table 32

Wilcoxon Matched-pairs Sums Test: Competence Upon Graduation / Competence at the Time of the Survey.

Competency	Z	p
1grad/1now - assess/manage institutional resources	-8.432	0.000
2grad/2now - gather, interpret data for decision making	-7.298	0.000
3grad/3now - create organizational governance structure	-7.226	0.000
4grad/4now - build consensus	-7.650	0.000
5grad/5now - mediate/resolve conflict; manage dissent	-7.941	0.000
6grad/6now - delegate without micromanaging	-8.019	0.000
7grad/7now - build/ facilitate teams; promote cooperation	-7.000	0.000
8grad/8now - manage personal time	-6.140	0.000
9grad/9now - speak/ write in clear and concise manner	-6.217	0.000
10grad/10now - identify problems and their solutions	-6.704	0.000
11grad/11now - set institutional goals	-7.819	0.000
12grad/12now - consider diverse views; open to new ideas	-7.189	0.000
13grad/13now - design strategic plan	-7.599	0.000
14grad/14now - develop business partnerships	-7.836	0.000
15grad/15now - develop political relationships	-7.500	0.000
16grad/16now - plan/implement new academic activities	-7.184	0.000
17grad/17now - relate research to teaching	-5.583	0.000
18grad/18now - develop interdisciplinary programs	-6.003	0.000
19grad/19now - team teach a course	-6.162	0.000
20grad/20now - choose staff	-7.929	0.000
21grad/21now - plan/implement staff development program	-7.266	0.000

Competency	Z	p
22grad/22now - train/ motivate staff	-7.603	0.000
23grad/23now - evaluate staff	-7.733	0.000
24grad/24now - evaluate faculty; recommend for promo./tenure	-7.733	0.000
25grad/25now - manage staff resources	-7.779	0.000

Summary

The most common characteristics of respondents in this study were that they were males between 46 and 55 years old. The majority had over twenty years of postsecondary administrative experience and were alumni of Ohio University.

Assessment of the study's four research questions was accomplished by analyzing responses to the Administrative Competencies Questionnaire upon which respondents indicated their perceptions of the degree to which competencies were addressed in their program of study and important to their job as administrators. The ACQ assessed 25 leadership competencies from the literature, arranged on the survey in the four categories of management, leadership, curriculum, and human relations.

At the time of prospectus, it was suggested that meaningful data might also be gained from asking respondents their perceived personal competence with regard to the twenty-five abilities upon graduating from their program of study in higher education administration and at the time of the survey. As a result, four Likert scales were included in the survey (instead of the original two), allowing respondents to circle their perceptions on a five-point scale from 5 (strongly agree) to 1 (strongly disagree).

The eight management competencies as a group (1-8 on the survey) had a mean scores of M = 3.25 for respondents' perception that they were addressed in their program of study. The group mean for respondents' perception that those competencies were

important to their jobs as administrators was M = 4.35. Respondents' perceptions of their own competence in these eight abilities at the time of graduation and at the time of survey are represented by means of M=3.60 and M=4.23 respectively. Group means for the leadership, curriculum and human relations competencies are similarly tabulated in Table 33 where POS stands for respondents' perceptions of whether or not the competencies were addressed in the program of study. JOB denotes their perception of the importance of the competencies to their jobs as administrators. GRAD is an abbreviation to indicate their perceptions of their own competence at graduation, and NOW indicates their perception of their competence at the time of survey. With regard to the importance respondents placed upon competency groups, the curriculum group was thought to be least important and the management group slightly more important that human relations and leadership competencies. Upon graduation, respondents felt least competent in curriculum competencies and most competent in leadership competencies. At the time of the survey, respondents still felt they possessed the least ability with regard to curriculum competencies but perceived themselves most able in the human relations category.

Table 33

Mean responses by competency group and Likert

Competencies	POS	JOB	GRAD	NOW
Management 1-8	3.25	4.35	3.6	4.23
Leadership 9-15	3.5	4.29	3.66	4.22
Curriculum 16-19	3.09	3.38	3.33	3.89
Human Relations 20-25	2.99	4.31	3.56	4.29

Overall, respondents perceived the 25 competencies derived from the literature search as having been addressed in their program of study with no significant difference in perception between the two institutions or with regard to the respondents' years of postsecondary administrative experience. Most respondents chose to indicate their perceptions in the range of 3-"neutral" to 4-"agree" (see Table 24).

Significant differences were noted with regard to age and sex. The competencies that addressed the ability to develop partnerships with business representatives and the ability to manage staff resources in an effective manner showed significant differences in means with respect to age. For both competencies, the perception that they had been addressed in the program of study increased with age. With respect to sex, males perceived that their program of study focused on teaching the ability to manage personal time more so than females.

The 25 competencies were, overall, perceived to be important to the job of an administrator, the lowest scores falling in the curriculum group. Respondents from both institutions rated the importance of the competencies in a range of 4-"agree" to 5-"strongly agree" (see Table 24), again with no significant differences between institutions.

Significant differences were noted for several competencies when assessed in their relationship to the age of the respondent. For the most part, as the age of the respondent increased, the more they perceived the importance of the ability to assess and manage institutional resources. Similarly, as age increased, respondents placed more importance on the abilities of creating an organizational governance structure, setting

institutional goals, designing strategic plans, developing partnerships with business representatives, choosing a competent staff, and managing staff resources in an effective manner.

Significant relationships were also discovered with regard to sex and the importance of the competencies for an administrator. Females put more emphasis than males on the ability to (a) build consensus, (b) mediate and resolve conflict, (c) identify problems and their solutions.

Experience as an administrator appeared to make a difference in the respondents' perception of the importance the abilities to (a) assess and manage institutional resources, and (b) manage staff resources in an effective manner. In both cases, as an administrator gained more years of experience, he or she perceived these abilities to be more essential.

Upon graduating, most respondents perceived themselves to be relatively capable in the 25 leadership competencies, their responses falling in the range of 3-"neutral" to 4-"agree". No significant difference was apparent with regard to the age of the respondent.

Significant differences were noted with respect to the other demographic groups. Females seemed to feel more proficient upon graduation in their ability to (a) speak and write in a concise manner, (b) consider diverse points of view and be open to new ideas, and (c) plan and implement a staff development program. More experienced administrators, especially those having between 11 and 15 years of experience, felt more capable after graduation in their ability to (a) plan and implement a staff development program, (b) train and motivate staff, and (c) manage staff resources in an effective manner. Additionally, graduates of the Marshall/WVU program had a higher opinion of their competency upon graduation than Ohio University in the ability to consider diverse

points of view, plan and implement new academic activities, and team-teach a course.

When considering their competence at the time of survey, respondents' perceptions of their overall leadership ability had climbed to the range of 4-"agree" to 5 "strongly agree". No significant differences in means were noted when considering years of postsecondary administrative experience, but significant differences were evident with regard to the other demographics. As age increased, respondents perceived themselves to be more competent in their ability to design a strategic plan while females felt more confident in their ability to consider diverse points of view and be open to new ideas. Females also believed they were stronger in their ability to relate research to teaching and to team-teach a course.

Focusing on differences between institutions, it was clear that alumni from Ohio University perceived themselves more able than did alumni of the Marshall/WVU group in their proficiency at fairly evaluating staff, and managing staff resources in an effective manner. Marshall/WVU alumni felt more capable at delegating without micromanaging,

Comparisons were made matching (a) perceived inclusion of the competencies in respondents' program of study with competence at the time of the survey as well as matching (b) perceived inclusion in the programs of study with the perceived importance to an administrator's job and (c) perceived importance to the job of an administrator with perceived competence upon graduation. For most abilities, if the respondent perceived the competency to have been included in the program of study, a linear relationship existed with regard to the perception that the competency was important to the job of an administrator. Competencies five, six, seven, twenty, twenty-three, and twenty-five differed from this relationship. Respondents perceived that an administrator's job

required a high degree of competence in the abilities of mediating conflict, delegating without micromanaging, building teams, choosing a competent staff, fairly evaluating staff, and managing staff resources. Respondents did not feel these competencies were well addressed in their programs of study or were only marginally addressed.

In the second comparison, correlations were not significant for competencies 17 and 18. Respondents perceived relating research to teaching (17) important to the job of an administrator (M = 3.66, SD = 1.201) yet did not feel as competent upon graduation (M = 3.53, SD = 1.273) as they did in other competencies. Similarly, respondents perceived the ability to develop interdisciplinary programs important to an administrator's job (M = 3.23, SD = 1.273) yet did not feel as competent upon graduation (M = 3.14, SD = 1.099) when compared to other abilities listed on the survey.

Comparisons were made matching perceived competence at the time of graduation with perceived competence at the time of survey. All paired samples showed that respondents seemed to think they were significantly more competent at the time of survey than they were upon graduation.

Discussion of the implications of the data presented in this chapter will be reserved for Chapter 5. Conclusions will also be offered in the next chapter in addition to recommendations for further study.

CHAPTER 5

Summary, Conclusions and Recommendations

This chapter presents a summary, conclusions and recommendations and contains these sections: (a) summary of purpose; (b) summary of procedures; (c) summary of descriptive data; (d) summary of findings; (e) summary of ancillary findings; (f) conclusions; (g) recommendations; and (h) implications.

Summary of Purpose

This study was designed to investigate the relationship between 25 abilities perceived important to the competence of a higher education administrator (i.e. as they emerged from the literature) and the doctoral programs of study in higher education administration at Marshall University/West Virginia University (Marshall/WVU) and Ohio University (OU), two public universities. More specifically, the study inquired whether these programs of study adequately prepared the graduates of their programs by presenting instruction to develop or strengthen 25 necessary competencies emergent from the literature.

The following research questions guided the study:

Q1: What is the extent to which graduates of the program of study in higher education administration at Marshall/WVU and Ohio University perceive the leadership competencies emergent from the literature as having been addressed in their program of study?

Q2: What is the extent to which graduates of the programs of study in higher education administration at Marshall/WVU and Ohio University perceive the leadership

competencies emergent from the literature as being important in their job as administrators?

Q3: What are the relationships, if any, between and among the age, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of the extent to which each emergent competency was addressed in their programs of study in higher education administration?

Q4: What are the relationships, if any, between and among the age, sex, and years of postsecondary administrative experience of the respondents and the respondents' perceptions of the degree to which each emergent competency is important to their jobs as administrators?

Statistical results from the examination of these questions combined with ancillary findings may provide useful implications for the designers of higher education administration programs in the future.

Summary of Procedures

A one-shot case study research design was used to gather data in this study. With the exception of overseas alumni, all of the graduates of the higher education administration programs of study at the Marshall/WVU Co-op (1978 – 2001) and OU (1982 – 2001) (N=286) were surveyed in this study. The working sample was further reduced due to outdated addresses and graduates who were not administrators, resulting in a sample of N = 213. An author-developed questionnaire, the Administrative Competencies Questionnaire (ACQ), was the instrument used to gather data (Appendix C).

Since the author developed the questionnaire, it was pilot tested for face validity and subsequently revised to its final form. Ten practicing administrators responded to the questionnaire (Appendix E) that originally asked only if the respondents received instruction in each ability as a result of their programs of study in higher education administration. It was noted, however, that respondents were not asked whether these competencies were, in fact, important for or relevant to an administrator's competence. In the interest of discerning each competency's importance to the job of an administrator, the ACQ (Appendix C) was revised to include the second Likert scale asking that specific question.

In its final form, the ACQ includes four Likert scales followed by demographic questions concerning the respondents' ages, sex, years of postsecondary administrative experience, and the institutions from which they received their degrees in higher education administration. Two of the Likert scales ask the respondents to rate, on a scale of 1 (strongly disagree) to 5(strongly agree) whether or not 25 leadership competencies emergent from the literature were addressed in their programs of study and are important to their jobs as administrators. The last two Likert scales were added at the time of prospectus in order to obtain as much potentially useful information as possible. The third and fourth Likerts ask the respondents to rate their own perceived abilities in the 25 competencies at the time of graduation and at the time of survey.

Surveys were printed on color paper (goldenrod, green, then light yellow) and mailed with cover letters printed on Marshall University letterhead (Appendix D). Self-addressed, stamped return envelopes were included to enhance the return rate. The surveys, assuring anonymity, were mailed to the participating administrators at the

addresses provided by Marshall/WVU and OU, each mailing occurring two weeks apart. Overall 152 usable responses were received (71.4%), which exceeds the percentage required for validation (Kerlinger & Lee, 2000).

Data generated by the survey were entered into and analyzed using the SPSS 10 computer software-processing program. Analyses were conducted using Independent Samples t-tests, One-Way Analysis of Variance (ANOVA), Paired Samples t-tests, and the Wilcoxon Matched-Pairs Sums Test. An alpha level of .05 was established as the criterion for determining statistical significance.

Summary of Descriptive Data

The demographic data collected were determined by the research questions for the study. Respondents were asked, therefore, to indicate their age range (in ten-year increments), sex, years of postsecondary administrative experience (in five-year increments), and the institutions from which they received their degrees in higher education administration. Of the 152 respondents, two (1.3%) reported ages in the range of 26-35 years, 28 (18.4%) in the 36-35 years range, 71 (46.7%) in the 46-55 year range, 42 (27.6%) in the 56-65 year range, and 8 (5.3%) in the 66 years and older range. One respondent (.7%) declined to indicate any age (Table 2). When indicating sex, 83 (54.6%) were males and 64 (42.1%) were females. Five respondents (3.3%) declined to indicate sex (Table 3). Asked to report the extent of their postsecondary administrative experience, three respondents (2.0%) had fewer than five years of experience, 16 (10.5%) had six to ten years of experience, 24 (15.8%) had 11-15 years experience, 39 (25.7%) had 16-20 years experience, and 70 (46%) had over 20 years of postsecondary administrative experience (Table 4). With regard to institution, 87 respondents indicated

they received their doctoral degrees in higher education administration from Ohio University and 63 indicated Marshall/WVU (Table 1).

Summary of Findings

The statistical findings are grouped according to the Likert scales from which the findings originated and will follow the order in which they appear on the ACQ. The findings from the third and fourth Likerts will be presented in the form of ancillary findings since that information was not addressed in the original research questions.

It is important to note, at this point, that most of the significant findings from the study result from the analyses of the demographic data. The age, sex, years of experience, and institutions from which respondents received their degrees in higher education administration significantly effected their perceptions of whether the 25 competencies were addressed in their programs of study, the importance of the competencies to an administrator's job, and how capable they felt upon graduation and at the time of the survey. The findings from the analyses of the demographic data will be presented with the findings from the Likert to which they apply.

Likert #1: The degree to which the competencies were addressed in the respective programs of study in higher education administration.

For the most part, respondents perceived the 25 competencies had been addressed in their program of study with no significant differences ($p<.05$) noted with regard to institutions (Table 5). Speaking and writing in a clear and concise manner was perceived as being most addressed ($M = 4.20$, $SD = 0.962$) while developing business partnerships was an ability in which they received the least instruction ($M = 2.62$, $SD = 1.234$). There

was no significant difference in the perceptions of respondents with regard to their years of postsecondary administrative experience (Table 9).

Significant differences were found at the alpha .05 level, however, when factoring in age and sex. As age increased, so did the respondents' perceptions that their programs of study offered instruction in the ability to develop partnerships with business representatives and the ability to manage staff resources in an effective manner (Table 7). When responses were categorized by sex, it was found that males seemed to perceive that their programs of study addressed the ability to manage personal time more so than females (Table 8).

Likert #2: The degree to which the competencies are important to the job of a practicing administrator.

Respondents generally perceived that the competencies were important to the job of an administrator (Table 10), indicating that speaking and writing in a clear and concise manner was most important (M = 4.83. SD = 0.409) and team-teaching a course was least important (M = 2.81, SD = 1.339). No significant differences at the alpha .05 level emerged with respect to the two institutions (Table 11).

The ages of the respondents did make a difference (Table 12). As age increased (see Table 13), so did the tendency of the respondent to perceive the importance of an ability to (a) assess and manage institutional resources ($p<.01$), (b)create an organizational governance structure ($p<.01$), (c) set institutional goals ($p<.01$), (d) design a strategic plan ($p<.05$), (e) develop partnerships with business representatives ($p<.01$), (f) choose a competent staff ($p<.01$), and (g) manage staff resources in an effective manner ($p<.01$).

Sex, too, indicated significant ($p<.05$) differences (Table 14). Females perceived more than males the importance of building consensus, mediating and resolving conflict, and identifying problems and their solutions.

Finally, the years of experience of the respondent made a significant difference ($p<.01$) in the prioritizing of two administrative competencies (Table 15). As administrators gained more years of experience, they seemed to place more importance on competency one (assessing and managing institutional resources), and competency 25 (managing staff resources in an effective manner; see Table 16).

Ancillary Findings

Likert #3: The degree to which respondents perceived themselves competent upon graduation.

Upon graduation, respondents perceived themselves to be moderately capable in all 25 leadership competencies (Table 17). Responses fell in a range between 3-"neutral" and 4-"agree" (also see Table 33). Again, the highest mean value was for the ability to speak and write in a clear and concise manner ($M = 4.32$, $SD = 0.724$) while respondents felt the least capable in their ability to develop political relationships ($M = 2.98$, $SD = 1.176$).

Focusing on the institutions, graduates of the Marshall/WVU program had a significantly higher opinion of their competence upon graduation in considering diverse points of view ($p<.05$), planning and implementing new academic activities ($p<.01$), and team-teaching a course ($p<.05$) than graduates of Ohio University (Table 22). No significant differences with regard to respondents' reported age ranges (Table 18) were discovered.

Significant differences with respect to the other demographic groups, however, were of note. Females perceived themselves significantly ($p<.05$) more competent in their ability to (a) speak and write in a concise manner, (b) consider diverse points of view and be open to new ideas, and (c) plan and implement a staff development program (Table 19). As administrators gained more experience, they perceived themselves significantly ($p<.05$) more capable upon graduation in (a) planning a staff development program, (b) training and motivating staff, and (c) managing staff resources in an effective manner (Tables 20 and 21).

Likert #4: The degree to which respondents perceived themselves competent at the time of the survey.

Considering perceived competency at the time of the survey, respondents rated their overall leadership ability significantly higher than at the time of graduation ($p<.01$). The highest mean value was, again, the respondents' perceived competence in their ability to speak and write in a clear and concise manner ($M = 4.67$, $SD = 0.527$). They perceived themselves to be least capable of developing interdisciplinary programs ($M = 3.63$, $SD = 1.127$).

Analyzing differences between institutions, it was clear that alumni from Marshall/WVU believed they were significantly ($p<.05$) more capable at the time of the survey (Table 28) at delegating without micromanaging, while Ohio University alumni indicated higher perceived competence at fairly evaluating staff ($p<.05$), and managing staff resources in an effective manner ($p<.05$).

No significant differences at the alpha .05 level were evident with respect to respondents' years of postsecondary administrative experience (Table 27). As age

increased, however, respondents perceived themselves to be significantly ($p<.05$) more competent in their ability to develop a strategic plan (Table 24), while females (Table 26) felt significantly more capable of considering diverse points of view and being open to new ideas ($p<.01$). Females also believed they were stronger in relating research to teaching ($p<.05$) and team-teaching a course than males ($p<.05$).

Paired Samples Analyses

Four paired samples analyses were conducted. Paired samples t-tests were used to consider relationships between (a) the program of study and perceived competence at the time of the survey, (b) perceived importance to an administrator's job and perceived competence at the time of graduation, and (c) the program of study and perceived importance to an administrator's job. The Wilcoxon matched-pairs sums test was used to explore the relationship between respondents' perceived competence upon graduation and at the time of the survey.

Comparing respondents' opinions of the inclusion of competencies in their programs of study with their perceived competence at the time of the survey revealed that all competencies were related linearly except for the ability to develop a staff development program. Thus, in most cases, if respondents perceived a competency as having been included in their program of study, they also felt competent in that ability at the time of the survey. Conversely, if respondents did not feel that a competency was included in their program of study, they did not feel as competent in that ability as they did in others. In the case of planning a staff development program, respondents did not perceive that they received much instruction in the competency, yet they did feel capable at the time of the survey, presumably having gained experience on the job (Table 29).

Considering the relationship between perceived importance to the job of an administrator and competence at the time of graduation, positive, significant ($p<.05$ and $p<.01$) correlations were evident for all but four competencies. A positive correlation indicates that either the competency was perceived to be important to an administrator's job *and* the respondents felt competent in the ability or the competency was not perceived to be important *and* the respondents didn't feel as competent in that ability as in others. When considering the ability to delegate without micromanaging, choose a competent staff, and manage staff resources in an effective way, respondents generally perceived the abilities to be important yet did not feel competent upon graduation. On the other hand, respondents didn't feel the ability to fairly evaluate staff was particularly important ($M = 3.08$) to the job of an administrator, yet they felt marginally ($M = 3.25$) competent in that skill upon graduation, clearly not a linear relationship (Table 30).

The last correlation analyzed the relationship between perceived inclusion in the programs of study and perceived importance to the job of an administrator. Six competencies were perceived to be important to an administrator's job but were not linearly related to respondents' perceived inclusion of the competency in their programs of study. These competencies were mediating conflict, delegating without micromanaging, building teams, choosing a competent staff, fairly evaluating staff, and managing staff resources (Table 31). In all cases, respondents felt these six abilities are quite important to an administrator's job (means ranged from 4.36 to 4.65) but did not feel they received instruction in accordance with the perceived importance (means ranged from 2.88 to 3.36).

The Wilcoxon matched-pairs sums test was used to analyze perceived competence upon graduation as related to perceived competence at the time of the survey. In the case of the foregoing paired-samples t-test correlations, only a linear relationship is suggested by the analyses. The Wilcoxon analysis indicates whether or not a statistically significant difference exists between the means of the matched pairs. Thus, it would allow a determination of whether respondents felt significantly more competent at the time of the survey than they did upon graduation and would suggest that experience on the job made a significant difference in competence when compared to instruction received in the programs of study. For all 25 competencies, respondents perceived themselves to be significantly more competent at the time of the survey than they did upon graduation from their programs of study in higher education administration (Table 32).

Conclusions

The major findings of this study resulted from an analysis of, primarily, the demographic data from the first two Likert scales of the Administrative Competencies Questionnaire. These two scales concerned the degree to which the 25 leadership competencies were perceived to have been addressed in the respondents' program of study in higher education administration and the degree to which the competencies were perceived to be important to the respondents' jobs as administrators.

Likert #1: The degree to which respondents' perceived the leadership competencies were addressed in their program of study.

As age increased (Table 7), respondents in the study perceived that their program of study offered instruction in the ability to develop partnerships with business representatives and the ability to manage staff resources in an effective manner ($p<.05$).

While these findings were not specifically related to age in the leadership literature cited in this study, perhaps one reason that older respondents might focus on these issues in contrast to others is that younger respondents may not have assumed those responsibilities as yet. Administrators who are new to the field may not have the delicate task of courting business partnerships that would normally go to someone more seasoned in the ways of the academic community. Similarly, a less experienced administrator might not be given the duty of managing staff resources, a job that could require a level of diplomacy that comes only with years of experience.

Male respondents perceived that their program of study taught them how to manage their personal time significantly more so ($p<.05$) than female respondents (Table 8). While time management was not related to sex in the literature, one possible explanation may relate to different life experiences for men and women. By the time many women reach the point in their lives when they are pursuing doctoral programs, they are also at a stage in their lives when they are balancing the responsibilities of motherhood along with their jobs and education. Women may, therefore, already be used to multitasking, making the most of their personal time in order to complete an advanced degree. They may not focus as much on having to learn these skills from a program of study as their male counterparts.

Likert #2: The degree to which respondents perceived the leadership competencies were important to their jobs as administrators.

As age increased (Tables 12 and 13), respondents were significantly more likely to see as important seven particular competencies, i.e. the abilities to assess and manage institutional resources ($p<.01$); create an organizational governance structure ($p<.01$);

set institutional goals ($p<.01$); design a strategic plan ($p<.01$); develop partnerships with business representatives ($p<.01$); choose a competent staff ($p<.01$); and manage staff resources in an effective manner ($p<.01$). Age was not related to these specific competencies in the literature but may well be duties of the seasoned leader rather than someone new to the administrative role. Younger administrators might actually be considered one of the "competent staff" (competency 20) recently chosen by a more experienced institutional leader. It would also be a senior administrator who has the responsibility of deciding where institutional resources are spent and how the governance structure is organized. Younger administrators would be striving to meet the institutional goals and working to follow the strategic plan designed by those with more experience in office. Further, as mentioned in the previous section, winning the favor of business partners can be a subtle skill that would not be entrusted to a person of little experience.

The significant differences noted with regard to the sex of the respondent are well established in the literature. Women respondents in this study (Table 14) were more likely than men to value building consensus, mediating and resolving conflict, and identifying problems and their solutions ($p<.05$). The literature suggests that women are usually more concerned with team building (Rosen & Brown, 1996) and building the confidence of others (Kouzes & Posner, 1987), skills that aid in building consensus. They have also been noted to be more collaborative and open to the views of others (Maccaby, 1981), talents that are critical to mediation and conflict resolution. Women have been characterized as more participative decision makers who solicit the opinions of subordinates (Wolck, 1997), a quality that may enable them to identify problems and

their solutions better than men who tend to be more solitary, independent leaders (Rosen & Brown, 1996).

As the reported years of experience increased, respondents placed significantly more importance ($p<.01$) on assessing and managing institutional resources, as well as managing staff resources in an effective manner (Tables 15 and 16). These two competencies were also perceived to be important as age increased, not a surprising development since many older respondents are perhaps also administrators with more experience on the job. Therefore, their years of experience might put them in positions of assessing and managing institutional and staff resources whereas a less experienced administrator may actually be a staff resource rather than being in a position of handling the responsibilities congruent with institutional assets.

Ancillary Conclusions

Not having been the focus of the research questions of this study, the conclusions resulting from the third and fourth Likert scales of the ACQ are presented herein as ancillary to the major findings.

Likert #3: The degree to which respondents perceived themselves to be competent at the time of graduation.

With respect to the institution from which respondents received their degrees in higher education administration, graduates of the Marshall/WVU Co-op perceived themselves to have greater competence than graduates of Ohio University upon graduation in their ability to consider diverse points of view ($p<.05$), plan and implement new academic activities ($p<.01$) and team teach a course ($p<.05$). Fife (1991) speculated

that course offerings varied according to the expertise and interests of the faculty. Since the curricula for the two programs of study considered in this research did not differ sufficiently to account for these differences in perceived competence, it is possible that considering diverse points of vies and being open to new ideas, team teaching, and developing new academic activities were interests or capabilities of faculty members on the Marshall/WVU staff during the time when these particular respondents matriculated.

Women respondents were found to feel significantly ($p<.05$) more capable upon graduation than men in their ability to speak and write in a concise manner, consider diverse points of view and be open to new ideas, and plan and implement a staff development program (Table 19). Bass (1995) stated that women tend to be somewhat more transformational in their leadership style since they make more of an effort to listen to subordinates and spend more time building relationships and nurturing the skills and abilities of subordinates. Women were found by Eagley, Karau and Johnson (1992) to be more collegial, asking others to participate in decision making by seeking out the views of others and being open to novel approaches. Similarly, women are thought of as good communicators, using language to build enthusiasm and support for their projects (Kirby & King, 1992).

The more experience respondents possessed, the more likely they were to perceive themselves competent upon graduation (Tables 20 and 21) in their ability to plan a staff development program, train and motivate staff, and manage staff resources in an effective manner ($p<.05$). The leadership literature did not specifically relate these abilities to the years of experience possessed by an administrator. Planning staff development and managing staff resources, as mentioned in previous sections, may,

however, be thought of as duties falling to the more seasoned administrator, a possible reason why more experienced respondents perceived they were already competent in these abilities at the time of graduation. Training and motivating staff, however, might be considered a small part of team building and collaboration, abilities that Fitzgerald (1997) and Rosen and Brown (1996) attributed to more mature administrators who might conceivably have more experience. More experienced administrators are also thought of as being better able to deal with the changing climate of the academic world (Clancy, 1997). Environmental changes make it necessary to have an ongoing program for training staff and motivating them to attain new goals while cultivating the personal flexibility to be an effective leader despite environmental transformations (Fitzgerald, 1997).

Likert #4: The degree to which respondents perceived themselves to be competent at the time of the survey.

Two significant differences noted with respect to the institution from which respondents graduated (Table 28) concern competencies that have previously been noted as significant with regard to age or years of experience: the ability to fairly evaluate staff ($p<.05$), and the ability to manage staff resources in an effective manner ($p<.05$). In the case of these first two abilities, alumni of Ohio University perceived themselves to be more competent at the time of the survey. Also significant was a difference in respondents' perception of their ability to delegate without micromanaging ($p<.05$), a skill in which graduates of the Marshall/WVU Co-op perceived themselves to be more competent. Referring to the core courses required by Marshall University/WVU and its peer institutions, it is noticeable that Ohio University requires an internship of its

graduates whereas in the Marshall/ WVU program, an internship is elective. Perhaps it is this on-the-job-training that enabled the Ohio University alumni to perceive themselves more competent in the first two abilities normally attributed to someone of more experience. There is no frame of reference to speculate as to why Marshall/WVU Co-op alumni might feel more competent in their ability to delegate without micromanaging, other than Fife's (1991) supposition that perhaps this was a special interest of the Marshall/WVU faculty.

Significant differences already noted and explained were those respondents perceiving themselves to be more capable ($p<.05$) in their ability to develop a strategic plan as age increased (Tables 24 and 25) and women respondents feeling more able ($p<.01$) to consider diverse points of view and be open to new ideas (Table 26). At the time of the survey, however, women also felt stronger in their ability to relate research to teaching ($p<.05$) and to team-teach a course than men ($p<.05$). Team teaching requires a special kind of collaboration, deferring to another for unique expertise and working together to ensure the quality of a course. As skilled team builders and collaborators (Rosen & Brown, 1996), women may be more comfortable working with others, sharing the responsibilities as well as the credit for the content of a course and its management. As to an enhanced perception of their ability to relate research to teaching, simple demographics may play a role. For the survey, as for the pilot, most respondents were male. In a male dominated field (for this sample, men made up 54.6% of the sample), women may simply have to work harder at building an academic reputation and credibility. Relating research to teaching helps garner respect as a scholar and maintains

the reputation of one's course as contemporary and useful, assuming that administrators are involved in teaching.

Paired Samples Analyses

The first paired-samples correlation (Table 29) explored the relationship between the perceived inclusion of competencies in the program of study and the respondents' perceptions of their own competence at the time of the survey. All competencies showed linear relationships when compare a staff development program. With regard to that competency, respondents perceived themselves to be very capable at the time of the survey (M = 4.38) but did not feel that they received instruction in that ability as a result of their program of study (M = 2.82). Respondents also did not feel competent in this ability upon graduation (M = 2.82). Their perceived competence at the time of the survey would seem to be the result of their experience, on the job, as administrators.

The second paired-samples correlation (Table 30) compared the perceived importance to an administrator's job and respondents' perceived competence upon graduation. When considering the content of instruction to offer in a program of study, consideration might be given to the duties, responsibilities, and competencies required of the job for which the program is preparing their graduates. Four competencies in this comparison were not found to be related in a linear fashion. Respondents felt that delegating without micromanaging, choosing a competent staff, and managing staff resources were important to the job of an administrator but they did not feel competent upon graduation in accordance with the importance of the abilities. In the case of fairly evaluating staff, respondents felt more competent upon graduation than they perceived the importance of the ability warranted. Perhaps evaluating staff was thought to be a

responsibility of the human relations department or perhaps respondents simply did not perceive this ability to be in the realm of an academic administrator. This makes a strong case for following up a quantitative study such as this one with a more introspective qualitative study that could be designed to explore questionable issues such as this one. Delegating without micromanaging, choosing a competent staff and managing staff resources are all skills that are difficult to teach with classroom instruction alone and are often reserved for administrators with the seniority that puts them in a position of managing a staff and delegating duties. These may be skills best learned from an experienced mentor who has demonstrated a gift for nurturing staff.

The third correlation (Table 31) compared the respondents' perceived importance of the 25 competencies to an administrator's job and their perception of the competencies' inclusion in their programs of study. Similar to the second correlation, it might be important for program coordinators to know if the importance of a competence to an administrator's job was in accordance with its inclusion in the program of study for higher education administration. Six abilities did not show such a linear relationship. Mediating conflict/ managing dissent, delegating without micromanaging, building teams, choosing a competent staff, fairly evaluating staff, and managing staff resources are all skills that respondents felt were important skills for them to have as administrators, but they did not perceive them as having been addressing in their programs of study in accordance with their importance. Most of these skills are still in the realm of the seasoned administrator and, perhaps, best learned through experience. Building teams and mediating conflict, however, may be abilities in which students could receive classroom instruction. Conflict resolution is a course that might be pursued as an

interdisciplinary course offered through collaboration with a graduate counseling program. Students might also be given more experience in team building by requiring a number of projects to be completed only as team efforts in which learning the gifts of others on the team would result in a highly successful project.

The final comparison (Table 32) used the Wilcoxon matched-pairs sums analysis to compare respondents' perceived competence at the time of graduation and at the time of the survey. As previously mentioned, the Wilcoxon analysis does not suggest linear relationships between competencies of the two Likerts, but indicates whether the mean values of the Likert scales were significantly higher or lower. In all competencies, respondents perceived themselves to be significantly more competent at the time of the survey than at graduation ($p<.01$). A significant amount of competence, then, was achieved through experience on the job.

This finding is congruent with the view of the postmodernists as offered by Prestine (1995) when she cautioned against a compartmentalized administrative knowledge base. Attempts to codify an administrative "knowledge base" could encourage students to assume that once they have mastered the prescribed coursework, they are competent as administrators (Prestine, 1995). To function effectively as an administrator, it is often necessary to solve complex, ill-defined problems that may have multiple solutions depending upon the situation or the leadership style of the administrator. Since knowledge can be used in varied ways, Prestine (1995) proposes that it be offered in many different ways, making a case in favor of internships and the frequent use of case studies and role play in the education of administrators.

Nicholson and Leary (2001) propose a closer relationship between pedagogy and teaching, linking the program of study symbiotically with the requirements of the job of an administrator. In their model, faculty would work closely with practicing administrators in an effort to form a relationship in which the knowledge of what is useful in the world of practice could be jointly constructed.

Implications

While most competencies appear to have been introduced to at least some degree in both programs examined herein, the results of the Wilcoxon analysis somewhat overshadow that fact by revealing significant differences in competence at the time of graduation and at the time of the survey. These significant differences imply that respondents' competence significantly improved as they gained experience on the job.

It is not suggested here that one should expect the doctoral program of study in higher education administration to prepare students to be fully competent at the moment of graduation. Rather, it is proposed that these programs of study could, and should, offer more than just the didactic instruction that has, according to Levine (1990) become dated. Prestine (1995) would agree, stating further that it is inappropriate to allow students to believe that once they have mastered the material presented in a course of study, they have magically become capable administrators.

Prestine (1995) makes a convincing case against identifying a rigid knowledge base for administration, especially because of the changing nature of education. Given the altered funding climate in which colleges and universities now find themselves, it is

clear that higher education administration is an organic field of study with which programs of study must keep in close touch if they are to maintain their credibility.

Evers, Rush, and Berdrow (1998) further clarify this position by stating that there should be a strong concern for the interface between what students learn in their programs and what they need to know and be able to do in the workplace. Prestine (1995) warns, however, that administrator preparation programs should not limit themselves to the delivery of preservice knowledge, but must also help preservice practitioners understand how to use their acquired knowledge, and provide opportunities for them to develop skills.

Prestine (1995) advocates a constructivist approach to learning in which students are actively engaged in creating their own knowledge. Griffith (1995) adds support to this view by cautioning against the theory building that many programs engage in at the expense of problem solving. Bigelow (1996) suggests a hybrid approach with three components: conceptual, descriptive, and connecting. The conceptual piece provides learning from the research and writing of others. The descriptive component encourages learners to assess their own strengths and weaknesses and to construct a schedule of learning activities for themselves. The final element of connecting unifies the entire approach by asking learners to "consider the learning of others, consider the implications of their own behaviors, and identify those areas in which others' behaviors set a desirable standard for their own skill development" (p. 302). This method of reflection can fit easily into a program of study in the form of ongoing self-assessment activities infused throughout the preservice experience. An internship either integrated with coursework or as an exit requirement, could prove valuable as well.

There are obvious fiscal implications to such suggestions, the costs of internships as well as stipends to the student or stipends to the student's employer for release time so the student could pursue an internship among them. There is also the possibility the preservice experience would be lengthened (requiring a larger investment of time and money for students) and that additional fiscal and human resources would be required for faculty who structure and supervise internships.

College and university presidents would have to continue in their efforts to develop relationships with business representatives and political figures in their quest for financial support. Chief financial officers might refer to the results of this research to justify allocation of funds to the aforementioned endeavors that would lead to the development of a superior program of study. Academic deans and department chairs might pursue the extra funding necessary by writing grants and might use some of the funding to implement training programs for faculty to help them learn new educational strategies in the use of case studies and problem based learning.

A second implication of the finding of this study is that, in all four Likerts, the most important competency was perceived to be the ability to speak and write in a clear and concise manner. Not only was it perceived to be the most important to the job of an administrator, but it was also the competency most perceived to have been included in the programs of study examined herein and the ability in which most respondents felt competent. Programs of study must, therefore, continue to require their students to be articulate and must continue to hold them to very high standards as they require them to repeatedly perform in projects that demand competence in written and spoken communication.

Finally, the Wilcoxon analysis suggests a measure of caution when considering curricula revision. While the addition of instruction in missing competencies and employing new interactive strategies may improve a dated program, it should not be assumed that if enough content is added, graduates will become more competent. Much of the competence an administrator possesses seems to be the product of professional maturation born of years of experience. Field-based preservice experience and improved instructional strategies may serve to inject new health into an ailing curriculum, but cannot be expected to impart the competence that comes from the daily, first hand experience of dealing with the situations a practicing administrator encounters.

Recommendations

An analysis of the descriptive data and the findings of this study have formed the basis for the following recommendations.

1. Due to the limited population of this study, the results only generalize to other public institutions of similar size and nature. Generalizability could be improved by enlarging the population to include universities of more diverse size on a national scale.
2. Facilitating personal reflection may lend further enlightenment to many of the significant findings of this study as well as enabling other important issues to surface. Therefore, it is recommended that a qualitative piece be added to this research by conducting interviews of practicing administrators.
3. More specific information could have been extracted from the data if it had been possible to separate the graduates of the WVU residential program from the

Marshall/ WVU Co-op. The Administrative Competencies Questionnaire, in its present form, does not promote this separation. In future studies, it is recommended that the questionnaire be altered so that respondents have a choice of specific institutions to circle.

4. Further study is necessary to analyze the differences in the perceived competence of graduates from institutions that require an internship and those that do not. It is suggested that research be conducted to determine how many doctoral programs of study in higher education administration require an internship and how many do not. A random sample of both types of institutions nationwide could then be surveyed and responses analyzed to provide a better perception of the value of internships.
5. Repeating a similar needs assessment every five years may assist program directors in their efforts to keep course offerings current.
6. Since many finding from this study were as a result of ancillary data, it is recommended that, in subsequent studies, competence upon graduation and competence at the time of the survey be treated as major variables.

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APPENDIX A

Higher Education Associations

These higher education organizations were compiled from two sites: (a) the Washington Higher Education Secretariat (retrieved February, 11, 2002; http://www.whes.org) and (b) the National Teaching and Learning Forum (http://www.ntlf.com).

ACT

American Association for Higher Education

American Association of Colleges of Nursing

American Association of Colleges for Teacher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American College Personnel Association

American Council on Education

American Dental Education Association

American Society for Engineering Education

APPA: The Association of Higher Education Facilities Officers

Association of Academic Health Centers

Association of American Colleges and Universities

Association of American Law Schools

Association of American Medical Colleges

Association of American Universities

Association of Catholic Colleges and Universities

Association of Community College Trustees

Association of Governing Boards of Universities and Colleges

Association of Jesuit Colleges and Universities

Career College Association

Council for Christian Colleges and Universities

College and University Personnel Association

College Board

College Fund/ UNCF

Council for Advancement and Support of Education

Council for Higher Education Accreditation

The Council on Government Relations

Council of Graduate Schools

Council of Independent Colleges

Council for Opportunity in Education

Educational Testing Service

EDUCAUSE

Hispanic Association of Colleges and Universities

NAFSA: Association of International Educators

National Association for Equal Opportunity in Higher Education

National Association for College Admission Counseling

National Association of College and University Attorneys

National Association of College and University Business Officers

National Association of Independent Colleges and Universities

National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Association of Student Personnel Administrators

National Collegiate Athletic Association

NAWE: Advancing Women in Higher Education

University Continuing Education Association

Women's College Coalition

APPENDIX B

Peer Institutions' Core Courses:

Doctoral Program of Study

In

Higher Education Administration

Core Courses:
Marshall University
and
Its Peer Institutions

	History of Higher Ed.	Higher Ed. Theory	Higher Ed. Finance	Higher Ed. Law	Higher Ed. Governance	Higher Ed. Politics	Current Issues in Higher Ed.	Higher Ed. Admin.	Principles of Leadership	Internship	Statistics	No Nigher Ed. Program
University of South Alabama	X	X	X	X	X	X	X				X	
East Carolina University												Program under review
University of South Carolina												X
University of South Florida												X
Southern Illinois University - Edwardsville												X
Marshall University	X	X	X	X				X	X		X	
University of Nevada - Reno			X	X		X		X		X	X	
University of North Dakota - Main Campus	X			X		X		X	X			
Ohio University - Main Campus	X		X	X	X	X	X	X		X	X	
East Tennessee State University		X	X	X				X	X	X	X	
Wright State University - Main Campus												X

APPENDIX C

Administrative Competencies Questionnaire

Please indicate below: (a)on a scale of "5 " for strongly agree (SA) to "1" for strongly disagree (SD), the degree to which each competency was, in your opinion, addressed in your Higher Education doctoral program of study; (b) on a scale of "5" for most important (MI) to "1" for least important (LI), the degree to which, in your opinion, each competency is important to your job as an administrator. Please also indicate in the last two columns, how competent you felt immediately upon graduation and how competent you feel now in each competency.

	The competency was addressed in my program of study	The competency is important in my job as an administrator	I felt competent in this area upon graduation.	I feel competent in this area now.
	SA SD	MI LI	SA SD	SA SD
Management				
1. Ability to assess and manage institutional resources.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
2. Ability to gather, analyze, and interpret data for decision making.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
3. Ability to create an organizational governance structure.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
4. Ability to build consensus.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
5. Ability to mediate and resolve conflict; to manage dissent.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
6. Ability to delegate without micromanaging.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
7. Ability to build and facilitate teams; to promote cooperation.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
8. Ability to manage personal time.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
Leadership				
9. Ability to speak and write in a clear and concise manner.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
10. Ability to identify problems and their solutions.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
11. Ability to set institutional goals.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
12. Ability to consider diverse points of view; to be open to new ideas.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
13. Ability to design a strategic plan.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
14. Ability to develop partnerships with business representatives.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
15. Ability to develop relationships with local, state and national political figures.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
Curriculum				
16. Ability to plan and implement new academic activities.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
17. Ability to relate research to teaching	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
18. Ability to develop interdisciplinary programs.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
19. Ability to team teach a course.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
Human Relations				
20. Ability to choose a competent staff.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
21. Ability to plan and implement a staff development program.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
22. Ability to train and motivate staff.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
23. Ability to fairly evaluate staff.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
24. Ability to evaluate faculty and recommend for promotion and tenure.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
25. Ability to manage staff resources in an effective manner.	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1

Demographic Data

Age _____ 26-35; _____ 36-45; _____ 46-55; _____56-65; _____66 and older

Gender _____ M _____ F

Years of Post-secondary Experience _____ < 5 _____ 6-10 _____ 11-15; _____ 16-20 ____>20

Institution from which you received your highest degree _____

Administrative Competencies Questionnaire

APPENDIX D

Cover Letters

For

Administrative Competencies Questionnaire

MARSHALL UNIVERSITY
www.marshall.edu

Graduate College
School of Education & Professional Development
Leadership Studies

Dear Colleague:

Programs of study in higher education administration are charged with preparing future administrators for positions in colleges and universities. Despite its long history, however, the field lacks definitive information on the competencies necessary for adequate performance in an institutional setting. You are being asked to participate in a study designed to identify the most important competencies for a higher education administrator to possess and whether or not these competencies are being addressed in the higher education administration program of study.

Enclosed you will find a questionnaire that seeks your impressions on 25 leadership competencies as they relate to your higher education administration program of study and to the practice of higher education administration. Following are brief demographic questions. Please answer each question as thoughtfully and frankly as possible in order that this study can be helpful in improving the higher education administration program of study for those who follow in our footsteps. I know that your time is very valuable and that you have many pressing issues to address in the course of a day. This survey was, therefore, designed to take no more than ten to fifteen minutes to complete.

Please be assured that your participation in this study is entirely voluntary and that your responses will remain anonymous. To insure complete confidentiality, please do not write your name anywhere on the instrument.

This research is being conducted as a part of my Doctoral program in Higher Education Administration at Marshall University. Please feel free to contact me with any questions you might have. I greatly appreciate your help in this research project!

Sincerely,

Judy Porter
(410-719-7444)

PS. Thank you, again, for your time and your help!

Enclosure

100 Angus E. Peyton Drive • South Charleston, West Virginia 25303-1600 • Tel 304/746-2514 • Fax 304/746-1942
A State University of West Virginia • An Affirmative Action/Equal Opportunity Employer

MARSHALL UNIVERSITY
www.marshall.edu

Graduate College
School of Education & Professional Development
Leadership Studies

Dear Colleague:

About two weeks ago, you may have received a survey asking for your valuable input on leadership competencies as they relate to the program of study in higher education administration. So many documents cross your desk in a day that this particular survey may have gotten misplaced or lost in the shuffle. I am, therefore, enclosing another for your convenience. As administrators, I realize you are very busy people and your time is quite valuable, so I am hoping that this survey will only take about 15 minutes of your time. In that brief time, you can contribute so much to this study and possibly even be an integral part of much needed curriculum review and reform in the field of higher education administration. Please take a few moments to offer your input and mail your response back to me.

Thank you, again, for the gift of your precious time!!

Sincerely,

Judy Porter
(410) 719-7444

MARSHALL UNIVERSITY
www.marshall.edu

Graduate College
School of Education & Professional Development
Leadership Studies

Dear Colleague:

Several weeks have past since you received my survey asking for your input on administrative competencies as they relate to the program of study in higher education administration. We all put things on the back burner as we address the more pressing concerns of today's higher education institutions. It is understandable that a doctoral survey might find its way to the far recesses of a busy administrator's desk or office!! For your convenience, I have enclosed another copy because your input is so important not only to the reform of the higher education administration curriculum, but to the significance of this study. Please take just a few minutes to complete this brief survey and send it back in the enclosed, self-addressed and stamped envelope. This anxious doctoral student will be forever grateful!!

Sincerely,

Judy Porter
(410) 719-7444

PS. If you have already completed and returned the survey, please disregard this notice and accept my most sincere thanks.

100 Angus E. Peyton Drive • South Charleston, West Virginia 25303-1600 • Tel 304/746-2514 • Fax 304/746-1942
A State University of West Virginia • An Affirmative Action/Equal Opportunity Employer

APPENDIX E

Pilot Questionnaire

Please indicate from the lists below the competencies that were, in your opinion, addressed in your Higher Education doctoral progream of study. Please circle "Y" for "yes this competency was addressed" or "N" for "no, this competency was not addressed.

		Yes	No
Leadership			
1.	Ability to gather, analyze and interpret data for decision making..	Y	N
2.	Ability to mediate and resolve conflict; to manage dissent.	Y	N
3.	Ability to design a strategic plan.	Y	N
4.	Ability to develop partnerships with business representatives.	Y	N
5.	Ability to develop relationships with local, state, and national political figures.	Y	N
6.	Ability to consider diverse points of view; to be open to new ideas.	Y	N
7.	Ability to build consensus.	Y	N
8.	Ability to speak and write in a clear and concise manner.	Y	N
Human Relations			
9.	Ability to choose competent staff.	Y	N
10.	Ability to plan and implement a staff development program.	Y	N
11.	Ability to train and motivate staff.	Y	N
12.	Ability to diplomatically and fairly evaluate staff.	Y	N
13.	Ability to evaluate faculty and recommend for promotion and tenure.	Y	N
14.	Ability to manage staff resources in an effectuve manner.		
Curriculum			
15.	Ability to plan and implement new academic activities.	Y	N
16.	Ability to relate research to teaching	Y	N
17.	Ability to develop interdisciplinary programs.	Y	N
18.	Ability to team teach a course.	Y	N
Administration			
19.	Ability to assess and manage institutional resources (time and funds).	Y	N
20.	Ability to create an organizational governance structure.	Y	N
21.	Ability to set institutional goals.	Y	N
22.	Ability to delegate without micromanaging.	Y	N
23.	Ability to identify problems and their solutions..	Y	N
24.	Ability to build and facilitate teams; to promote cooperation.	Y	N
25.	Ability to manage personal time.	Y	N

Demographic Data

Age _____ 26-35; _____ 36-45; _____ 46-55; _____56-65; _____66 and older

Gender _____ M _____ F

Current Title _____

Years of Post-secondary Experience _____ < 5 _____ 6-10 _____ 11-15; _____ 16-20 ____>20

Name of institution from which you obtained your degree _____

APPENDIX F

Pilot Human Subjects Review

WestVirginiaUniversity
College of Human Resources and Education

April 22, 2002

MEMORANDUM

TO: Judith Porter

FROM: Anne H. Nardi
Associate Dean

RE: Human Resources & Education H.S. #2002-060

Title: "The Relationship Between Competencies Perceived to be Important for Administrative Effectiveness and the Higher Education Administration Program of Study: A Needs Assessment"

Your Application for Exemption for the above-captioned research project has been reviewed under the Human Subjects Policies and has been approved. Attached is the original of your cover letter with the signed stamp of approval. This must accompany your survey or questionnaire.

This exemption will remain in effect on the condition that the research is carried out exactly as described in the application.

Best wishes for the success of your research.

cc: Deans Office

Office of the Dean

802 Allen Hall
PO Box 6122
Morgantown, WV 26506-6122

Phone: 304-293-5703
Fax: 304-293-7565

APPENDIX G

Human Subjects Review:

Administrative Competencies Questionnaire

West Virginia University
College of Human Resources and Education

June 12, 2002

MEMORANDUM

TO: Judith Porter

FROM: Anne H. Nardi
Associate Dean

RE: Human Resources & Education H.S. #2002-072

Title: "The Relationship Between Competencies Perceived to be Important for Administrative Effectiveness and the Higher Education Administration Doctoral Program of Student: A Needs Assessment"

Your Application for Exemption for the above-captioned research project has been reviewed under the Human Subjects Policies and has been approved. Attached is the original of your cover letter with the signed stamp of approval.

This exemption will remain in effect on the condition that the research is carried out exactly as described in the application.

Best wishes for the success of your research.

cc: Deans Office
Student Advising and Records
Dennis P. Prisk, Advisor

Office of the Dean

802 Allen Hall
PO Box 6122
Morgantown, WV 26506-6122

Phone: 304-293-5703
Fax: 304-293-7565

APPENDIX H

Pilot

Raw Scores

		Yes	No
Leadership			
1.	Ability to gather, analyze and interpret data for decision making..	10	0
2.	Ability to mediate and resolve conflict; to manage dissent.	7	3
3.	Ability to design a strategic plan.	6	4
4.	Ability to develop partnerships with business representatives.	2	8
5.	Ability to develop relationships with local, state, and national political figures.	7	3
6.	Ability to consider diverse points of view; to be open to new ideas.	10	0
7.	Ability to build consensus.	9	1
8.	Ability to speak and write in a clear and concise manner.	10	0
Human Relations			
9.	Ability to choose competent staff.	5	5
10.	Ability to plan and implement a staff development program.	5	5
11.	Ability to train and motivate staff.	6	4
12.	Ability to diplomatically and fairly evaluate staff.	5	5
13.	Ability to evaluate faculty and recommend for promotion and tenure.	4	6
14.	Ability to manage staff resources in an effectuve manner.		
Curriculum			
15.	Ability to plan and implement new academic activities.	10	0
16.	Ability to relate research to teaching	10	0
17.	Ability to develop interdisciplinary programs.	6	4
18.	Ability to team teach a course.	7	3
Administration			
19.	Ability to assess and manage institutional resources (time and funds).	7	3
20.	Ability to create an organizational governance structure.	7	3
21.	Ability to set institutional goals.	8	2
22.	Ability to delegate without micromanaging.	6	4
23.	Ability to identify problems and their solutions..	10	0
24.	Ability to build and facilitate teams; to promote cooperation.	10	0
25.	Ability to manage personal time.	6	4

Demographic Data

Age **1** 26-35; **1** 36-45; **4** 46-55; **2** 56-65; **1** 66 and older **1** declined to respond

Gender **7** M **3** F

Current Title **1** - Chancelor; **2** -President; **4** - Vice President or Provost; **3** - Dean

Years of Post-secondary Experience **none** < 5 **1** 6-10 **none** 11-15; **1** 16-20 **8** >20

Name of institution from which you obtained your degree _____