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# METHODOLOGICAL ORIENTATION OF RESEARCH ARTICLES APPEARING IN HIGHER EDUCATION JOURNALS

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Dissertation submitted to the Graduate College of Marshall University in partial fulfillment of the requirements for the degree of

> Doctor of Education in Educational Leadership

Committee Chair, Dennis M. Anderson, Ed.D. Lisa A. Heaton, Ph.D. Mary Harris-John, Ed.D. Edna Meisel, Ed.D.

Huntington, West Virginia, 2012

Keywords: Research, Methodology, Qualitative, Quantitative, Mixed-Methods

# **DEDICATION**

This work is dedicated to God, family, and friends whose love, support and encouragement have sustained me through the process. Thanks for your patience and sacrifices. My success is because of you!

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# ABSTRACT

The purpose of this study was to understand the methodologies authors in higher education journals used to obtain knowledge in their fields. This study looked at five peer-reviewed journals of higher education and analyzed the methods of research employed by the authors to help them answer their respective research questions. The methods of research are qualitative, quantitative, or mixed-methods. Additionally, this study examined the effects of author, gender, and academic rank on the selection of research methods.

# METHODOLOGICAL ORIENTATION OF RESEARCH ARTICLES APPEARING IN HIGHER EDUCATION JOURNALS

#### **CHAPTER ONE: INTRODUCTION TO RESEARCH METHODOLOGY**

Knowledge has been a basic human necessity as essential as food and shelter. It separated us from other life forms by giving us the power to manipulate and to control our environment. Entire civilizations have changed due to their understanding and knowledge of the world around them. Christopher Columbus discovered "The New World" as a result of his pursuit of knowledge. Modern day examples can be found everywhere. According to the census, the population of the United States has shifted from the East to the South and West (Jones & McCormick, 2010). In the past 60 years the population of Phoenix, Arizona has grown over 255 percent and that of Las Vegas has increased 1,843 percent (Browning, 2011). A few years ago these cities were almost uninhabitable with temperatures reaching 120 degrees Fahrenheit in the summer months. If humankind had not acquired the knowledge to control its physical environment, these areas would still be largely unpopulated. Knowledge put a man on the moon, changed travel, and how daily life is lived. This study examined the different methodologies used to acquire knowledge in this modern scientific age.

Over the years the way knowledge was acquired has changed. There have been four major categories used to define knowledge: Authoritarian, Mystical, Rationalistic,

and Scientific. In the Authoritarian and Mystical eras knowledge was generated through a select group of individuals such as oracles and mediums. In the Authoritarian model the creators of knowledge were politically or socially defined and would include individuals such as kings and archbishops. A common person in quest of knowledge would solicit the authority's assistance for prayer or other ceremonial petitions for guidance. In the Mystical model, the authoritarian would be selected through the manifestation of supernatural signs. The Mystics were made up of prophets, mediums, and gods and would sometimes use drugs or stress-induced hallucinatory methods to seek signs for guidance. At other times they would use tarot cards and hexagrams to guide seekers of knowledge (Milliken, 2001; Wallace, 2004).

During the Rationalistic age of research, logic was the absolute science. The creation of knowledge depended on the strict observance of a set of rules laid out by the logic model. This model was similar to the Authoritarian and Mystic in that the rules governing knowledge were created by a select group of individuals, but once those rules were established an individual could generate knowledge as long as he or she adhered to those rules. Proponents of the scientific approach believed that there was a set of unproven and unprovable assumptions needed to verify true knowledge. They sought to dispel the belief that human beings were born with or can simply reason their way to authentic knowledge. The Scientific model, unlike the others, puts no weight on the characteristic of the person creating the knowledge. That method of knowledge creation relied on the collective assessment and replication of procedures to produce true knowledge. It is the Scientific era and the development of qualitative and quantitative research methods that were the focus of this study (Milliken, 2001; Wallace, 2004).

Both qualitative and quantitative research methods were developed in the twentieth century and with their evolution came the qualitative versus quantitative debate. In general, quantitative studies involve the collection and analysis of numerical data whereas qualitative studies involve a method of collecting and analyzing data that relies on meaning and interpretation.

Critics of qualitative research claimed that it is not scientific and lacks proper sampling. Moreover, the opponents of qualitative research claimed that it is not objective and is guided by the subjectivity of the researcher. On the other hand, critics of the quantitative method claim that the idea of representation and generalizability is flawed, and that it is impossible to eliminate researcher subjectivity (Woolgar, 1988). It was further argued that science is dynamic in nature and does not exist in a vacuum. Some claimed that influences of social forces and professional pressures make objectivity unattainable (Tewksbury, DeMichele, & Miller, 2005).

#### **Purpose of the Study**

The purpose of this study was to analyze the methods of research employed by the higher education community as evidenced by articles published in selected peerreviewed journals. Additionally, this study examined the effects of author, gender, and academic rank on the selection of research methods. This study explored the way authors of research journals published and mentored junior authors.

#### **Statement of the Problem**

For many years the qualitative versus quantitative research debate has lingered. Although qualitative methods have made headway, quantitative methods are believed to remain prevalent. This study critiqued five higher education journals within a five-year

period, 2006-2010, to determine the frequency with which various methods were utilized. The five journals used in this research were, The Review of Higher Education, Journal of Computing in Higher Education, The Journal of Higher Educatio,; Journal of Higher Education Policy and Management, and Higher Education Quarterly.

#### **Journal Background**

#### The Review of Higher Education

*The Review of Higher Education (The Review)* features articles and research pertaining to various issues affecting higher education. It is published quarterly by Johns Hopkins University Press and is the official journal of the Association for the Study of Higher Education (ASHE). The Review originates from the Department of Educational Leadership Program at the University of Nevada, Las Vegas and is produced both online and in print. According to publishers the article acceptance rate is between five and eight percent. The journal is peer reviewed (Johns Hopkins University Press, 2009; Nora, 2009).

### Journal of Computing in Higher Education

The *Journal of Computing in Higher Education (The Journal)* publishes original research and papers pertaining to issues associated with instructional technologies in educational environments. The journal is published by Springer Publishing in New York and is produced both online and in print. All manuscripts undergo review through a double-blind peer process. Two issues per year are produced with an acceptance rate of about 20 percent (Journal of Computing in Higher Education, 2009; Sheldon, 2009).

#### Journal of Higher Education

The *Journal of Higher Education (JHE)* is a scholarly journal published by the Ohio State University Press in Columbus, Ohio. The journal deals with issues of importance to faculty and administrators in higher education and is available in print and online. The journal is published bimonthly. The acceptance rate is nine percent. Manuscripts undergo a blind peer review prior to acceptance (Ohio State University Press, 2009; Gray, 2009).

#### Journal of Higher Education Policy and Management

The *Journal of Higher Education Policy and Management (JHEPM)* focuses on post-secondary educational policy. It not only deals with current practices but also provides the latest research on emerging policies. All articles undergo peer review by at least two experts, after passing an editor screening. The journal is published four times a year by Routledge, Taylor and Francis Ltd, an international publisher from Oxford, England. Author acceptance rate is 20 percent. *JHEPM* is available online and in print (Dobson, 2009; Taylor & Francis Group, 2009).

#### Higher Education Quarterly

The *Higher Education Quarterly (HE)* is published four times a year by Wiley-Blackwell publishers. The focus of this publication is strategic management and senior policy management in secondary education. All articles are peer reviewed. The acceptance rate for authorship is 20 percent and the journal is available in print and online. *HE* is an international publication based in London and is published in association with the Society for Research in Higher Education (SRHE) (John Wiley & Sons, 2009; McKeown, 2009).

#### Significance of the Study

Higher education has two basic functions, which are to educate and to create knowledge. In addition to teaching, professional educators are often required to participate in research and publish those findings in scholarly journals, most of which are peer reviewed or refereed journals. Peer-reviewed journals are reviewed for accuracy, originality, and current interest by a panel of experts in the field. Peer-reviewed articles meet the standards of expertise expected by the discipline.

The peer review process is an accepted indicator of quality. Having published in a refereed journal adds credibility to an educator's reputation and profession. The quality of the refereed journal is known throughout the industry, which is why academic leaders rely on them to remain current in their disciplines. These journals are an excellent way for professionals to share their research and see the latest investigations performed by other professionals.

Given the significance associated with these journals it is important to establish the academic standing of the authors and their research methodology. The academic standing is an indicator of the author's experience and credibility. The method of research chosen by the author helps define the parameters of the study and the conclusions that are drawn.

Both qualitative and quantitative research methods address different types of questions and are capable of providing scientifically important and clinically relevant information. Qualitative research focuses on the sum of a problem whereas quantitative looks at individual parts. To be limited to one approach limits the type of problems that can be addressed by the research (Plante, Kiernan, & Betts, 1994).

#### **Research Questions**

- 1. What is the predominant method of research for published authors in selected peer-reviewed higher education journals?
- 2. Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 3. Does academic rank play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 4. Do primary authors prefer co-authors of a certain academic rank in select peer-reviewed higher education journals?

#### Methods

This study involved an analysis of the research method(s) used in the articles and the authors' characteristics (gender, rank, place of employment) for each article published in five higher education journals for a five year period, 2006-2010. Analysis of the data was based on descriptive statistics. Only full articles were included; book reviews, opinion pieces, and so forth were excluded. Variables included gender of the lead author, academic rank of the lead author and co-authors, and the predominant method of research used in each research article (quantitative, qualitative, or mixed).

#### Limitations of the Study

This study had three primary limitations.

- Journal Selections
- Not Discipline Specific
- Generalizability

Journal selections for this study were from five scholarly publications of higher education over a five-year period. Other journals and timeframes may produce different outcomes.

This study examined higher education as a whole and was not discipline specific. The selected journals dealt with policy, technology, and higher education in general.

The extent to which these findings may be generalized is indeterminate. All journals associated with the study were available through printed media and accessible online. Journals that were strictly print or solely online were not included in this study.

#### **Operational Definitions**

The following operational definitions were used to examine the research questions of this study:

- Academic Rank: In academia faculty hold rank according to rigid qualifications and includes Professor, Associate Professor, Assistant Professor, and sometimes Instructor.
- *Acceptance Rate:* An acceptance rate is the percentage of submitted manuscripts that editors accept for publication. In general the lower the acceptance rate the more prestigious the publication.
- *Mixed-Method:* A technique of problem assessment that utilizes qualitative and quantitative research methods.
- *Peer Reviewed*: The process of verifying an author's scholarly work as determined by peers.
- *Qualitative*: A method of understanding human behavior based on the collection of nonnumerical data.

Quantitative: The scientific investigation of problems based on mathematical models.

# Conclusion

Although the examination of research methods has been conducted in specific disciplines such as criminal justice and mass communication, a similar study in higher education has not been conducted (Tewksbury, et al., 2005; Trumbo, 2004).

This study will be relevant for academic leaders who rely on peer-reviewed journals to remain current in their disciplines. It will also be relevant to faculty who publish in peer-reviewed journals for promotion and tenure consideration. This study will help potential authors understand which journals are most relevant to their particular type of research projects. It will help them determine where manuscripts should be submitted to maximize chances for acceptance.

#### **CHAPTER TWO: LITERATURE REVIEW**

The purpose of this chapter is to examine existing literature concerning the history of research and the methodological orientation of research articles appearing in higher education journals.

#### **Quantitative Research**

Quantitative research is a method of measuring human actions and ideas based upon scientific sampling. Its roots stem as far back as the 1100s with the Trial of the Pyx. Before modern methods of coin creation, the work was done by hand. To ensure the newly minted coins conformed to standards, the London Royal Mint routinely inspected the quality by measuring their weight. Each day a sampling of coins would be stored in a wooden chest called the Pyx. At a given time the Pyx would be transferred to a chamber by the same name for inspection. The coins would be weighed for accuracy against plates of gold, silver and cupro-nickel. These plates were known as Trial Plates. Each coin would have to fall within a certain weight range to maintain the integrity of that batch of coins. This represented the first scientific means of ensuring quality production of a product (Giedroyc, 1998-2010; Goldsmiths Company, n.d.; Stigler, 1986.).

#### Modern Era of Quantitative Research

It was not until 1805 that the modern era of quantitative research as we know it today began to take shape. Pierre-Simon Laplace (1749-1827), a French mathematician and astronomer best known for his solar system research, developed a tool to mathematically predict the probabilities of a particular event occurring in nature. The probability theory was essential to activities that involve quantitative analysis of large

sets of data. For example, a coin tossed in the air has a fifty-fifty chance of turning up heads. The more often it is tossed the closer to that fifty-fifty mark it will come. In other words, a coin tossed three times may come up heads one time, which will give it one-third chance of being heads, but tossed one hundred times, that coin will be closer to the fifty-fifty mark of being heads. Laplace's theory was built upon earlier works by Abraham De Moivre (1667-1754) and Jacob Bernoulli (1654-1705). These advances in the study of probability helped usher in the age of modern statistics and earned Laplace the title of the "Newton of France" (Classic Encyclopedia, 2006; Stigler, 1986a).

During the same time period another Frenchman, Adrien Marie Legendre (1752-1833), was busy developing the Method of Least Squares (MLS). The MLS is a procedure to determine the best fit line for a set of data. This method was developed to solve scientific problems such as the mathematical motion of the moon and the shape of the earth (Shafer, 1993).

Four years after Legendre's publication on MLS, Carl Friedrich Gauss (1777-1855) expanded on the theory with a book entitled "The Theory of the Motion of Heavenly Bodies Moving about the Sun in Conic Sections." His theory was an expansion of both Laplace and Legendre and explained the orbits of planets (Stigler, 1986a).

Up until the early nineteenth century most mathematicians were busy applying their theories to problems concerning astronomy. Their goal was to understand the universe and how it worked. By the mid-1820s a move was underway to use some of the astronomical observation tools to understand the nature of man.

#### The Evolution of Quantitative Research

*Birth of Social Research.* Adolphe Quetelet (1796-1874), a Belgian astronomer, mathematician, statistician, and sociologist, introduced the age of social research using quantitative research methods. As a sociologist he used his mathematical background to make the leap into social research (Eknoyan, 2007). He devised a method of analyzing past population data to estimate current populations. His work with the census took place in 1828, but his interest did not stop there (Brooks, 2001). His next discovery in social research was the "concept of the average man." The average man was a fictional being that emerged from his statistical research. To develop the average man he considered birth and death rates by month, city, temperature, and time of day. Other human attributes such as height and weight were also considered. Eventually Quetelet carried his research beyond physical attributes to moral qualities. He collected data on drunkenness, insanity, suicide, and crime to lay the groundwork for social physics (Eknoyan, 2007; O'Connor & Robertson, 2006).

In the nineteenth century one of the central issues essential for extending statistical methodology from astronomical to social data was the isolation of data into homogeneous categories. Wilhelm Lexis (1837-1914), a German statistician, economist, and social scientist, was dissatisfied with the unsupported assumption of statistical homogeneity in sampling. He devised a test called the Lexis Ratio to analyze the validity of samplings. His most important contribution to modern social research was generalizability. Generalizability is a method of analysis used to determine if a sample is representative of the population under study (O'Connor & Robertson, 2000).

*Modern Experimental Psychology.* Gustav Theodor Fechner (1801-1887), Wilhelm Maximilian Wundt (1832-1920), and Hermann Ebbinghaus (1850-1909) are recognized as the founders of modern, experimental psychology. Fechner believed the mind could be measured and subjected to mathematical treatment. With this belief he developed his theory that psychology had the potential to become a quantified science. Fechner was also credited with demonstrating the non-linear relationship between psychological sensation and the physical intensity (Stigler, 1986).

By creating one of the first formal laboratories for psychological research Wundt established psychology as a separate science. His work entailed the exploration of religious beliefs. He was also known for mapping damaged areas of the human brain and identifying mental disorders (Stigler, 1986).

Ebbinghaus also worked with the human brain. His major contribution was the development of the Forgetting and Learning Curves. He was known for his pioneering research in memory. He developed techniques to help researchers measure memory and to understand serial learning and free recall (Stigler, 1986a).

*Statistical Correlation and Regression.* Francis Galton (1822-1911) held many titles but his major contribution to modern quantitative research was his work with statistical correlation and regression. He developed the Theory of Regression while studying heredity. His study involved sweet peas and how the seeds varied in size and characteristics according to their parents. He developed a technique for modeling and analyzing several variables with a focus on the relationship between dependent and independent variables. A correlation is a single number that describes the degree of relationship between two variables (Plucker, 2007; Tredoux, 2002; Trochim, 2006).

Francis Ysidro Edgeworth (1845-1926), an Irish philosopher, politician, and economist, made significant contributions to statistics, but what made him unique was his lack of a background in statistics. He took many of the tools used in previous centuries for astronomical observations and broke them down to their cores so he could understand the conditions, assumptions, and interpretations that made each successful. He developed techniques for dealing with special structures, which are now commonly referred to as Variance Components or the Random Effect Model. These models showed how to estimate dispersion in cross-classified additive models so that comparisons could be made between rows, columns, or cells (O'Connor & Robertson, 2003; Stigler, 2002).

Karl Pearson (1857-1936) established the discipline of mathematical statistics. He applied statistics to such biological problems as heredity and evolution. His contributions included regression analysis, the correlation coefficient, and the Chi-square test of statistical significance (1900). Pearson coined the term "standard deviation" (Magnello, 2007).

George Udny Yule (1871-1951) was a British statistician. Yule's major contributions to theoretical statistics dealt with correlation and regression. He was the first to recognize the degrees of freedom in the chi square statistic contingency tables. (O'Connor & Robertson, 2003b; Williams, 2004).

#### Widespread Acceptance of Quantitative Research

Quantitative research did not gain momentum with the general public until the early twentieth century. George Horace Gallup (1901-1984), Elmo Roper (1900-1971), and Archibald Crossley (1896-1985) used quantitative research to correctly predict Franklin D. Roosevelt's victory in the 1936 presidential election. A few years later Gallup learned a valuable lesson when he failed to follow through with his earlier data collection strategy and closed the presidential polls three weeks early, which resulted in an unsuccessful prediction of Dewey over Truman in the 1948 election (Gallup, Inc., 2009; Roper Center, 2009; Zetterberg, 2004).

By the middle of the twentieth century quantitative research was well established within the academic world. Quantitative research was based on the philosophical movement that all meaningful statements are either analytical or conclusively verifiable. This movement was called Positivism. Everything had to be confirmable by observation and experiment and metaphysical theories were meaningless (Ryan, 2006; Trochim, 2006b).

#### Strengths and Weaknesses of Quantitative Research

Like all methods of research, quantitative has its strengths and weaknesses. **Table 1: Strengths and Weaknesses of Quantitative Research** outlines the positive and negative components of this paradigm. Information contained in this table is reprinted directly from "*Mixed-Methods Research: A Research Paradigm Whose Time Has Come*," by R. B. Johnson and A. J. Onwuegbuzie, 2004. As reflected in the table some of its primary strengths include the ability to replicate the research, the potential to make predictions, and the capability of working with a large number of subjects. The primary weakness of this method is that the knowledge produced may be too abstract for practical application and researchers may misinterpret data due to the lack of understanding the local culture.

#### Table 1: Strengths and Weaknesses of Quantitative Research

Strengths and Weaknesses of Quantitative Research

# Strengths

- Testing and validating already constructed theories about how (and to a lesser degree, why) phenomena occur.
- Testing hypotheses that are constructed before the data are collected. Can generalize research findings when the data are based on random samples of sufficient size.
- Can generalize a research finding when it has been replicated on many different populations and subpopulations.
- Useful for obtaining data that allow quantitative predictions to be made.
- The researcher may construct a situation that eliminates the confounding influence of many variables, allowing one to more credibly assess *cause-and-effect* relationships.
- Data collection using some quantitative methods is relatively quick (e.g., telephone interviews).
- Provides precise, quantitative, numerical data.
- Data analysis is relatively less time consuming (using statistical software).
- The research results are relatively independent of the researcher (e.g., effect size, statistical significance).
- It may have higher credibility with many people in power (e.g., administrators, politicians, people who fund programs).
- It is useful for studying large numbers of people.

# Weaknesses

- The researcher's categories that are used may not reflect local constituencies' understandings.
- The researcher's theories that are used may not reflect local constituencies' understandings.

- The researcher may miss out on phenomena occurring because of the focus on theory or hypothesis *testing* rather than on theory or hypothesis *generation* (called the *confirmation bias*).
- Knowledge produced may be too abstract and general for direct application to specific local situations, contexts, and individuals.

*Note*. Reprinted from "Mixed-Methods Research: A Research Paradigm Whose Time Has Come," by R. B. Johnson and A. J. Onwuegbuzie, 2004.

For most scientists, quantitative research was considered the benchmark of exploration, but a new model was on the horizon. The emergence of qualitative research into mainstream investigations added a new dimension to the field of research and challenged the Positivism movement. Qualitative research rejected the Positivism theory and sparked a debate in the scientific world that would last well into the twenty-first century.

#### **Qualitative Research**

Qualitative research can trace its roots to the disciplines of anthropology and sociology. Anthropology is the study of human beings and their interactions with each other and the environment whereas sociology is the study of human societies and social structures.

#### Anthropology

Anthropology is the study of humankind with roots in natural and social science and the humanities. The first anthropologist was Abū Rayhān al-Bīrūnī (973-1048). Al-Bīrūnī was a Muslim scholar who engaged in personal research of the lives and customs of the people of the Middle East, the Mediterranean and Southern Asia. His primary method of research was participant observation. He presented his findings with objectivity and neutrality using cross-cultural comparisons (Faratarazmarzha, 2007; O'Connor & Robertson, 1999).

The next major step in the evolution of anthropology was Marco Polo (1254-1324). He came to be known as "the father of modern anthropology." This title is based upon his book, "The Travels of Marco Polo" nicknamed "II Milione." Some say it earned the title for the millions of lies told within the pages, whereas others claim it is a methodical observation of nature. Polo was a merchant by trade. As a young man he traveled with his father and uncle throughout Central Asia and China learning the industry. Polo's travels took him across various cultures where he met society's elite. Upon returning to his homeland a revolution had erupted and he found himself imprisoned. While in prison he dictated his stories to a cellmate. His accounts of the land and people he encountered during his twenty-four year journey were extremely detailed and became a source of inspiration for millions. His writings were used as a roadmap for exploration by such notable explorers as Abraham Cresque, author of the *Catalan Atlas*, and Christopher Columbus (Rosenberg, 2009; Sensenig, n.d.; Wikimedia Foundation Inc., 2009).

Other sources declared Claude Levi-Strauss (1908-2009) the true intellectual "father of modern anthropology." Levi-Strauss, not to be confused with the American jeans entrepreneur, was a French anthropologist who spent fifty-nine years studying the behavior of North and South American Indian tribes. He used structuralism to study the social organization of those tribes. He described structuralism as "the search for unsuspected harmonies within the social organizations." His greatest contribution to modern anthropology was this use of structuralism, but he brought forth many other

theories (Bloch, 2009). Another theory and part of the reason for his popularity was his rejection of humanism. Humanists believed that classical training alone could form a perfect man, whereas Levi-Strauss believed that the civilized and savage minds are equal in their natural state. His theory states that everyone's basic needs are the same until the introduction of cultural influences. These influences determine the acceptance of various standards such as food and social behaviors (Klages, 1997).

To accompany this belief, Levi-Strauss introduced the theory of binary opposites. This theory maintains that for every action there is an opposite action. One example of this theory is rational vs. emotional. Rational is considered a superior trait, whereas emotional is considered its opposite or an inferior trait. Men were considered the superior sex because they most often displayed rational thought and women were inferior because they displayed the binary opposite trait of emotion. Not everyone accepted this theory. It would be debated for years, but it was just one of many theories Levi-Strauss developed during his career (Schmitt, 1999). In addition to his studies, Levi-Strauss was an educator and author. His books included *The Raw and the Cooked*, *The Savage Mind*, *Structural Anthropology*, and *Totemism* (Bloch, 2009; Klages, 1997; Schmitt, 1999).

#### Sociology

Sociology can be traced back as far as the ancient Greeks. Sociological observation was used by such noted figures as Confucius (551 BC-479 BC) and Plato (428/427 BC – 348/347 BC) (Welty, 1973). The first sociologist was Ibn Khaldun (1332-1406), a North African astronomer, historian, scholar, mathematician, and social

scientist. His work provided guidelines on how societies should functions more than four centuries before modern sociologists (Cheddadi, 1994).

Modern sociology did not evolve until after the French Revolution (1787-1799). Auguste Comte (1798-1857) attempted to unify history, psychology, and economics through the scientific understanding of the social realm. He proposed that social ills could be remedied through sociological positivism. Positivism is the belief that authentic knowledge is based only on actual sense experience. Although Comte is generally regarded as the "Father of Sociology," the academic architect of social science was formally established by Emile Durkheim, Karl Marx, and Max Weber (Boran, 1947; Kreis, 2000b; *New World Encyclopedia*, 2008).

Emile Durkheim (1858-1917) was a French sociologist commonly regarded as the principal architect of modern social science. He set up the first European department of sociology at the University of Bordeaux in 1895 and established the journal *L'Annēe Sociologique*. Although he made several literary contributions to the social sciences, his most distinguished contribution was the concept of structural functionalism. Structural functionalism allows one to view social structures through the lens of its principal elements, norms, customs, traditions, religious beliefs and institutions (Durkheim, 2002).

Karl Marx (1818-1883), a German philosopher, political theorist, and sociologist, is credited with the development of the conflict theory. The conflict theory emphasizes the social and political inequality of various social groups often referred to as the "class struggle." In his theory Marx categorizes the classes into two basic groups, the proletariat and the bourgeoisie. The proletariats are individuals who sell their labor for paid wages. The bourgeoisie are capitalists who receive income from the exploitation of

other people's labor. Using this theory Marx helped establish the foundations of modern Communism. Marx believed that internal tensions of capitalism would one day cause it to self-destruct and be replaced by socialism. His most famous work was published in 1848 and titled *The Communist Manifesto* (Brians, 1998; Kreis, 2000).

Max Weber (1864-1920) was a key figure in the development of the antipositivist movement in sociology. The anti-positivist supporter believes that academia must reject scientific methods in social research and instead rely on the subjectivity of the researchers as they view the issues through the lens of basic sociological foundations. He further argued that sociology was able to methodologically identify causal relationships, which made it a science in its own right. In addition to anti-positivist, Weber's major work dealt with rationalization or the process by which social actions and interactions were based. He believed that many actions were based on calculations and outcomes rather than created from motivations established by custom, tradition, or emotion (Asiado, 2008; Kim, 2007; New World Encyclopedia, 2008).

Up until the late nineteenth century most sociological work was done primarily outside of the United States, but in 1875 the first sociology course was offered by William Sumner, a Professor at Yale University. It was not until 1892 that sociology established roots with the founding of the first independent Department of Sociology at the University of Chicago. Albion Small (1854-1926) founded the first accredited department of sociology at the University of Chicago and two years later founded the *American Journal of Sociology* (AJS). The AJS was the first journal of its kind in the United States. His work was instrumental in establishing the academic field of sociology in the U.S. (American Sociological Association, 2005). As important as his work was,

many others made significant contributions. Two such figures were Robert Park and Ernest Burgess. Their groundbreaking research helped establish the University of Chicago as a sociological research institution.

Robert Park (1864-1944) was born in Pennsylvania. His concern for social issues, especially related to race in the cities, led him to become a journalist and formed the foundation for his later research interest. He eventually received a Ph.D. in Philosophy and went on to teach at Harvard and University of Chicago. He, along with Ernest Burgess, developed the idea of a marginal personality in a 1921 book titled *Introduction to the Science of Sociology*. This theory states that loyalties that bind people together in primitive societies are in direct proportion to the fear and hatred in which they view other societies (Cortese, 1995).

Ernest Burgess (1886-1966) was born in Ontario. His most famous work was the 1921 book with Robert Park, title *Introduction to the Science of Sociology*. It would become known as the "Sociology Bible" but that was just the beginning. He continued working with Park to divide Chicago into concentric zones. These concentric zones were rings that depict urban land use. These categories identified business districts, factory localities, residential areas and commuter zones. These zones were one of the earliest theoretical models to explain urban social structures. This groundbreaking research provided a foundation for the University of Chicago and helped establish rigorous scientific bases for the social sciences. Between 1915 and 1940, the University of Chicago dominated sociology in the U.S. (Cortese, 1995).

The foundation of sociology was built upon positivism or the belief that true knowledge is based on actual sense experience. Notable figures such as Emile Durkheim

and Karl Marx continued to advance the field with their introduction of additional theories, such as functionalism and conflict theory. Max Weber introduced antipositivism to the field. The anti-positivism movement aimed to reject scientific methods in favor of establishing sociological research as its own science. The University of Chicago brought sociology to the forefront in the United States and helped establish the social sciences as solid scientific research.

#### Widespread Acceptance of Qualitative Research

Qualitative research did not reach its peak of popularity until the mid-twentieth century. It was used primarily in anthropological and sociological circles, but during the 1970s and 1980s it began to be used in other disciplines such as education studies, social work, and women's studies (Platt, 1985).

Qualitative research also became prevalent with many consumer products. Unlike quantitative methods of gathering data, qualitative techniques attempt to identify the human condition by understanding the thought process associated with various interactions. The very nature of qualitative research requires smaller focused samples than quantitative approaches. The ability to understand consumers and their spending habits made it an invaluable tool for manufacturers.

During the 80s and 90s, there was a slowdown in traditional media advertising spending, so there was heightened interest in making research related to advertising more effective (Platt, 1985). During that time, after criticisms from the quantitative side, new methods of qualitative research evolved to address the perceived problems with reliability and imprecise modes of data analysis.

### Strengths and Weaknesses of Qualitative Research

Just as with the quantitative paradigm, qualitative research has its strengths and weaknesses. **Table 2: Strengths and Weaknesses of Qualitative Research** outlines the advantages and disadvantages of this paradigm. Information contained in this table is reprinted from *"Mixed-Methods Research: A Research Paradigm Whose Time Has Come*," by R. B. Johnson and A. J. Onwuegbuzie, 2004. Some of its primary strengths include the ability to study a subject in depth, the ability to study dynamic processes, and the collection of data in a naturalistic setting. The primary weaknesses of this method is that knowledge is unique to the setting and therefore not generalizable. The results are more easily influenced by the researcher's personal biases.

#### Table 2: Strengths and Weaknesses of Qualitative Research

#### Strengths and Weaknesses of Qualitative Research

#### Strengths

- The data are based on the participants' own categories of meaning.
- It is useful for studying a limited number of cases in depth.
- It is useful for describing complex phenomena.
- Provides individual case information.
- Can conduct cross-case comparisons and analysis.
- Provides understanding and description of people's personal experiences of phenomena (i.e., the "emic" or insider's viewpoint).
- Can describe, in rich detail, phenomena as they are situated and embedded in local contexts.
- The researcher identifies contextual and setting factors as they relate to the phenomenon of interest.

- The researcher can study dynamic processes (i.e., documenting sequential patterns and change).
- The researcher can use the primarily qualitative method of "grounded theory" to generate inductively a tentative but explanatory theory about a phenomenon.
- Can determine how participants interpret "constructs" (e.g., self-esteem, IQ).
- Data are usually collected in naturalistic settings in qualitative research.
- Qualitative approaches are responsive to local situations, conditions, and stakeholders' needs.
- Qualitative researchers are responsive to changes that occur during the conduct of a study (especially during extended fieldwork) and may shift the focus of their studies as a result.
- Qualitative data in the words and categories of participants lend themselves to exploring how and why phenomena occur.
- One can use an important case to demonstrate vividly a phenomenon to the readers of a report.
- Determine *idiographic* causation (i.e., determination of causes of a particular event).

# Weaknesses

- Knowledge produced may not generalize to other people or other settings (i.e., findings may be unique to the relatively few people included in the research study).
- It is difficult to make quantitative predictions.
- It is more difficult to test hypotheses and theories.
- It may have lower credibility with some administrators and commissioners of programs.
- It generally takes more time to collect the data when compared to quantitative research.
- Data analysis is often time consuming.

• The results are more easily influenced by the researcher's personal biases and idiosyncrasies.

*Note*. Reprinted from "Mixed-Methods Research: A Research Paradigm Whose Time Has Come," by R. B. Johnson and A. J. Onwuegbuzie, 2004.

### **Mixed-Methods**

Mixed-method research is the combination of both the quantitative and qualitative research paradigms. Proponents of mixed-methods research believe that the use of both quantitative and qualitative research allows the researcher to experience a deeper understanding of the topic. Using both methods removes the limitations established by the use of a single method of research. On the other hand the deep paradigm difference between quantitative and qualitative research are a barrier the mixed-method researcher must consider and address prior to establishing a mixedmethods study.

Quantitative research is based on positivism. With this method there is only one truth, one reality independent of human perception. There are two independent entities involved in the research, the investigator and the investigated. The investigator is capable of studying a phenomenon without influencing or being influenced by it (Guba & Lincoln, 1994; Sale, Lohfeld, & Brazil, 2002). The goal of quantitative research is to measure and analyze relationships between variables within a value-free framework (Denzin & Lincoln, 1994). Quantitative research has a long and varied history dating back to the Trial of the Pyx in the twelfth century. By the twentieth century it was a wellestablished and widely accepted method of research.

The qualitative paradigm is based on interpretivism (Altheide & Johnson, 1994; Guba & Lincoln, 1994; Kuzel & Like, 1991; Sale, et al., 2002; Secker & Milburn, 1995). According to the qualitative approach of interpretivism there are multiple realities and truths. The investigator and the object of study are linked in such a way that findings are created within the context of the situation; in other words, if the players change, the results will change (Guba & Lincoln, 1994). The emphasis of qualitative research is on process and meanings. Qualitative research predates quantitative methods, but, despite its popularity by early explorers, its overall acceptance was restrained.

## History of Mixed-Methods Research

The different assumptions of the quantitative/qualitative paradigms created a positivism-idealism debate in the late 19<sup>th</sup> century (Smith, 1983). According to Onwegbuzie and Leech there have been four major phases of social and behavioral research methodology within the past 100 years: (1) popularization of quantitative research, (2) the emergence of the qualitative research, (3) the post-positivism era, and (4) the emergence of the pragmatist or mixed-method paradigm (Onwegbuzie & Leech, 2005).

Phase one of social and behavioral research was the popularization of the quantitative method. This phase ended just prior to the late nineteenth century. Mathematical and statistical procedures were used to explain and predict behavior. Research was positivist in nature, and studies were believed to be value-free because of the methods employed to gather and analyze data (Onwegbuzie & Leech, 2005).

Phase two of the hundred year research paradigm began in the early twentieth century. This phase was marked by the emergence of the qualitative research model. Qualitative researchers rejected the positivist ideals associated with quantitative methods and advocated the use of interpretivism. These researchers believed that social reality

was subjective. The introduction of this method divided the research world into two camps, the positivist and the interpretivist. Both sides harbored purists, people who believed only their method was acceptable research (Onwegbuzie & Leech, 2005).

The third phase, the post-positivism era, emerged in the late 1950s and early 1960s. This phase marked the beginning of the conciliation between quantitative and qualitative research. Despite this compromise, radical philosophies such as post-structuralism and post-modernism began to arise. These ideas brought forth the belief that no single objective reality existed; instead, there were multiple realities. Thus, interpretation was dependent on the interpreter. Because the theories divided into two pardigms, it was not possible for the theories to co-exist (Onwegbuzie & Leech, 2005).

The fourth phase, the emergence of the pragmatist paradigm, began in the late 1960s. The pragmatist movement challenged the purists by contending that quantitative and qualitative paradigms were neither mutually exclusive nor interchangeable. They believed that theory played a major role in both methods and in the existence of both subjective and objective orientations. This movement challenged the philosophical idea researchers had fervently debated for years, but by the late 1980s mixed method research was gaining popularity. The next decade brought about mixed model studies. Researchers began to mix the two methods, which gave birth to the research called mixed-methods (Onwegbuzie & Leech, 2005).

**Justification for Mixed-Method Research.** Thus far we have explored the differences between quantitative and qualitative research. As we embrace mixed-methodology we must examine how two radically different methods of research can be combined into one study. The first thing one should recognize is that, although different,

the two methods have common goals. Both quantitative and qualitative research seeks to understand the world in which we live. Their primary purpose is to improve the human condition by disseminating knowledge (Sale, et al., 2002).

The second rationale for the compatibility of the two paradigms is that both subscribe to theory and adhere to strict rules during the inquiry process. They share a commitment to rigor and critique in the research process. Each has its own techniques based on the research objectives, but each is also a part of the continuum of research (Sale, et al., 2002).

The third justification for combining research methods is the complexity of research topics. Many topics require data from a large number of perspectives. One method is not sufficient to understand the complex world in which we live. It takes a combination of words and numbers to fully express the intricate details of our human existence (Sale, et al., 2002).

Finally, researchers must consider multiple phenomena within a single study and to do so they need a variety of tools. They must use the tool that fits the phenomenon they are examining. The primary purpose of research is to understand truth; therefore, researchers need to be open to various methodologies (Howe, 1988).

Arguments against Mixed-Methods. Many arguments exist against mixing methodologies. As discussed earlier, each method is fundamentally different in its approach to research and in its core belief systems. Quantitative research is based on positivism, whereas qualitative is based on interpretivism. Quantitative believes in one truth whereas qualitative believes in multiple realities.

A more complicated issue is the explanation of results from studies using different methods that appear to agree or disagree. Opponents question how results can be similar if the researcher is looking at two different phenomena. Proponents argue that it is merely a matter of perception. People often simplify the situation and highlight results to reflect what they believe is happening. In other words, adding a frequency count to an open-ended question is not quantitative research (Sale, et al., 2002).

Data collected from different methods cannot be simply added together to produce a rounded reality. When we combine methods, there are four possible outcomes: 1) corroboration, 2) elaboration, 3) complementarity, or 4) contradiction. Corroboration happens when the same results are derived from both methods, whereas elaboration exemplifies the quantitative findings with the qualitative results. Although the results are different, complementarity findings provide insight to the problem, and contradictory findings place each method in conflict (Brannen, 2005).

#### Widespread Acceptance of Mixed-Methods

In today's world research has three basic methods, quantitative, qualitative, and mixed-methods. Although at times they seem in contradiction, they also have commonalities. For years researchers have debated the use of the various methods and have shown allegiance to their own methodology. As knowledge has accumulated in favor of mixed-methods, researchers are beginning to accept the realities of mixing two paradigms. Slowly researchers are finding ways to combine methods, which has allowed for the emergence of mixed-method research. Although mixed-methods is not fully accepted by all researchers it is gaining momentum. As more examples of quality studies emerge, researchers are learning to value the research. They are beginning to understand

that the use of different data sets within one research project is a complementary way of designing richer and more meaningful studies (Brannen, 2005).

### Strengths and Weaknesses of Mixed-Methods

Like quantitative and qualitative, mixed-methods research has its strong points and limitations. **Table 3: Strengths and Weaknesses of Mixed-Methods Research** outlines the dynamism and constraints of this paradigm. Information contained in this table is reprinted from "*Mixed-Methods Research: A Research Paradigm Whose Time Has Come*" by R. B. Johnson and A. J. Onwuegbuzie, 2004. Its primary strength is that it can answer more complex research questions than any single method. It also has the ability to add meaning to numbers. The principal weakness of this method is that it can be more complex and thereby more time consuming.

#### Table 3: Strengths and Weaknesses of Mixed-Methods Research

#### Strengths and Weaknesses of Mixed-Methods Research

### Strengths

- Words, pictures, and narrative can be used to add meaning to numbers.
- Numbers can be used to add precision to words, pictures, and narrative.
- Can provide quantitative and qualitative research strengths (i.e., see strengths listed in Tables 1 and 2).
- Researcher can generate and test a grounded theory.
- Can answer a broader and more complete range of research questions because the researcher is not confined to a single method or approach.
- The specific mixed *research designs* have specific strengths and weaknesses that should be considered (e.g., in a two-stage sequential design, the Stage 1 results can be used to develop and inform the purpose and design of the Stage 2 component).

- A researcher can use the strengths of an additional method to overcome the weaknesses in another method by using both in a research study.
- Can provide stronger evidence for a conclusion through convergence and corroboration of findings.
- Can add insights and understanding that might be missed when only a single method is used.
- Can be used to increase the generalizability of the results.
- Qualitative and quantitative research used together produce more complete knowledge necessary to inform theory and practice.

# Weaknesses

- Can be difficult for a single researcher to carry out both qualitative and quantitative research, especially if two or more approaches are expected to be used concurrently; it may require a research team.
- Researcher has to learn about multiple methods and approaches and understand how to mix them appropriately.
- Methodological purists contend that one should always work within either a qualitative or a quantitative paradigm.
- More expensive.
- More time consuming.
- Some of the details of mixed research remain to be worked out fully by research methodologists (e.g., problems of paradigm mixing, how to qualitatively analyze quantitative data, how to interpret conflicting results).

*Note*. Reprinted from "Mixed-Methods Research: A Research Paradigm Whose Time Has Come," by R. B. Johnson and A. J. Onwuegbuzie, 2004.

# **Gender in the Sciences**

The primary purpose of this study was to determine methods of research used by

authors in selected higher education journals. One of the important variables for this

investigation deals with gender and its contributions to methodological choices of authors.

Very little research is available on the topic of research methodologies by gender, but abundant research is available on gender in the math and science fields. This researcdh provides the most relevant starting point in understanding research methodologies and gender. The University of Alabama hosts the website, *4000 Years of Women in Science* with an opening question asking, "How long have women been active scientists?" Their answer below provides a core definition of STEM. Literature refers to the fields of science, technology, engineering, and mathematics as STEM; therefore, it will be used throughout this discussion.

Actually, how long have *people* been active in science? The answer is the same for both women and men -- as long as we have been human. One of the defining marks of humanity is our ability to affect and predict our environment. *Science* - the creation of structure for our world - *technology* - the use of structure in our world - and *mathematics* - the common language of structure - all have been part of our human progress, through every step of our path to the present. Women and men together have researched and solved each emerging need (The University of Alabama, 2011).

#### History of Gender in the STEM

Mathematics has been around since the beginning of time. It was not until people started recording the numbers that it became a field. Recorded history of mathematics began as early as 2000 BC in Babylonia. Number problems, linear equations, and quadratic equations can be traced back as early as 1700 BC. Babylonian mathematics

was inherited by the Greeks around 450 BC. They continued to develop it from 300 BC to 200 AD where it was picked up by Islamic countries. Up to this point, mathematical history contained names like Zeno of Elea, Democritus of Abdera, and Apollonius of Perga. In the16<sup>th</sup> century, European progress continued with men like Luca Pacioli, Girolamo Cardan, and Nicolo Tartaglia. The field continued to grow, and by the 18<sup>th</sup> century notable men such as Isaac Newton and Benjamin Franklin were added to the list of historical mathematicians and scientists (O'Connor & Robertson, 1997).

As evident above, history is very good at recording the achievements of man. Similar results listing male scientists and their accomplishments fill textbooks around the world. Unfortunately, roughly 50 percent of the population (women) has been ignored for the major part of written history; therefore, it is difficult to recount, with any real precision, the contributions of women to STEM.

In 1660 the first major scientific institution was created in London. This institution called, The Royal Society, was founded to help like-minded men exchange scientific ideas. Women were excluded because they were considered incapable of understanding the complexities of science. Women were expected to marry and devote their lives to husband and family. They were not routinely educated by traditional means, but a few from wealthy families or those who were fortunate enough to have brothers, husbands, and/or fathers willing to work with them could participate in STEM activities (Drew, 2010).

Despite the lack of opportunities in science, a few women made it into the history books. Women like Hypatia of Alexandria (370-415) who was the first known woman mathematician. She taught at the University of Alexandria and invented several scientific

instruments. She was eventually murdered because of her work and her writings were destroyed (Deakin, 1994). Hildegard of Bingen (1098-1179), wrote medical and natural history books. She was among the first to write about the need to boil water for sanitary reasons. She also wrote about diet and exercise and is the first female scientist whose writings still exist (Epstein, 2006). Then there was Maria Mitchell (1818-1889), an astronomer who discovered a comet in 1847 (Bois, 1996). These women made great contributions and were fortunate to be given credit for their work.

In the past 100 years it has become a little easier for women to be recognized for their contributions to science. Gertrude B. Elion (1918-1999), a research scientist in chemistry, helped develop drugs to fight diseases such as leukemia, malaria, and AIDS. She won the Nobel Prize in medicine and held 45 patents for drugs she developed. Before her death she was the first woman to be invited into the National Inventors Hall of Fame (Elion, 2012). Another example is Jane Goodall (1934-present), who spent thirty years of her life observing chimpanzees and writing books about her research. Today, she still travels around the world lecturing and has created the Jane Goodall Institution, an international wildlife and environment conservation organization (Jane Goodall Institution, 2011). The women previously discussed have contributed to the science and mathematics fields. Many others, however, are will be forever lost to history. Their contributions are unrecognized because of their gender. Thanks to the works of women recognized by history, and many other unnamed female scientists, the stereotype of women being unable to grasp the field of science has been challenged and gender roles are changing.

### Current Situation of Gender in the Sciences

In 2006 President George W. Bush started the *American Competitiveness Initiative*. This initiative addressed the need for more cutting-edge research in America. It committed \$50 billion to increase funding for research and development and addressed many needs in the field of STEM (Domestic Policy Council, 2006). In 2009 President Barack Obama took the next step and started his "Educate to Innovate" campaign. The campaign is a nationwide effort to improve science and math achievement for all students in the US. Recognizing the fact that women were underrepresented in STEM, the campaign has a provision to deal specifically with that underrepresentation. This program recognizes that women have the ability, but for various reasons lack the incentive for a career in the STEM fields (Office of the Press Secretary, 2009).

According to a survey conducted by the National Science Foundation, women have made a lot of progress in STEM fields but still trail behind men in many areas. The survey looked at graduation rates, gender, and field of study of U.S. doctoral students from 2000 through 2008. **Table 4: S&E Doctorates awarded in US 2000- 2008** shows the exact number of doctoral graduates from 2000 to 2008. Women went from 7,421 (43%) graduates in 2000 to 9,476 (47%) in 2008, whereas men went from 10,025 (57%) to 10,708 (53%). The actual number of male graduates increased, but overall percentages show a decrease. Women have made progress in both numbers and percentages of graduates in STEM, but under closer examination this trend is primarily due to increases in the social sciences. Men have remained dominate in the computer, math, and engineering fields (National Science Foundation, 2012).

Field, sex, and race/ethnicity	2000	2001	2002	2003	2004	2005	2006	2007	200
All S&E	17,446	17,261	16,314	16,855	17,271	17,829	18,400	19,595	20,18
Female	7,421	7.570	7,245	7,588	7.800	8,364	8,543	9.228	9,47
Male	10,025	9,691	9,069	9,267	9,471	9,465	9,857	10,367	10,70
Science	14,790	14,699	14,053	14,618	14,924	15,377	15,686	16,601	17,00
Female	6,925	7,087	6,794	7,158	7,307	7,853	7,937	8,551	8,67
Male	7,865	7,612	7,259	7,460	7,617	7,524	7,749	8,050	8,3
Agricultural sciences	553	544	549	626	601	611	640	643	6
Female	194	210	205	238	234	235	259	278	2
Male	359	334	344	388	367	376	381	365	39
Biological sciences	3,724	3,579	3,443	3,901	4,118	4,330	4,377	4,713	5,0
Female	1,703	1,616	1,550	1,833	1,929	2,145	2,140	2,327	2,5
Male	2,021	1,963	1,893	2,068	2,189	2,185	2,237	2,386	2,5
Computer sciences	402	395	410	413	455	500	551	680	6
Female	73	84	102	90	110	103	130	145	1
Male	329	311	308	323	345	397	421	535	5
Earth, atmospheric, and ocean sciences	409	362	368	376	356	360	389	481	4
Female	120	119	135	127	130	126	148	205	1
Male	289	243	233	249	226	234	241	276	2
Mathematics and statistics	588	525	438	513	508	540	583	645	6
Female	165	145	129	149	153	152	151	193	2
Male	423	380	309	364	355	388	432	452	4
Physical sciences	2,148	2,156	2,044	2,060	1,969	2,036	2,183	2,266	2,3
Female	563	599	578	599	555	610	655	713	6
Male	1,585	1,557	1,466	1,461	1,414	1,426	1,528	1,553	1,6
Psychology	4,042	4,381	4,042	4,059	4,191	4,452	4,230	4,450	4,3
Female	2,746	3,012	2,749	2,804	2,898	3,178	3,083	3,235	3,1
Male	1,296	1,369	1,293	1,255	1,293	1,274	1,147	1,215	1,2
Social sciences	2,924	2,757	2,759	2,670	2,726	2,548	2,733	2,723	2,8
Female	1,361	1,302	1,346	1,318	1,298	1,304	1,371	1,455	1,4
Male	1,563	1,455	1,413	1,352	1,428	1,244	1,362	1,268	1,3
Engineering	2,656	2,562	2,261	2,237	2,347	2,452	2,714	2,994	3,1
Female	496	483	451	430	493	511	606	677	8
Male	2,160	2,079	1,810	1,807	1,854	1,941	2,108	2,317	2,3

## Table 4: S & E Doctorates awarded in US 2000-2008

SOURCE: National Science Foundation, Division of Science Resources Statistics, special tabulations of U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, 2000–08.

# Figure 1: Doctorates Earned by Women in Selected STEM Fields is a graphic

of the percentage of women who have earned doctoral degrees in STEM fields over a forty-year span of time. This chart is an adaption from the National Science Foundation,

Division of Science Resources Statistics, 2008 Science and engineering degrees: 1966-2006. This graphic shows an increase in doctorates for women in all fields. In math, science, engineering, and physics women still receive a relatively small percentage of the degrees granted, according to a report from the National Science Foundation (Hill et al., 2010).

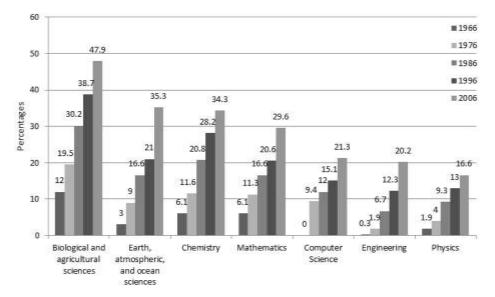


Figure 1: Doctorates Earned by Women in Selected STEM Fields, 1966 – 2006

**Table 5: Employment in STEM Occupations in 2009** shows the number of employees in STEM occupations by gender and the percent of females from 2000 and 2009. This information is provided by the U.S. Department of Commerce (Beede, Julian, Langdon, McKittrick, Khan, & Doms, 2011). In 2009 women ranged from 14 percent of employees in Engineering to 40 percent of employees in Physical and Life Sciences. Gains in the percent of women in STEM fields increased 1 percent in Physical and Life Sciences, decreased 3 percent in Engineering, and did not change in Computer Science and Math in the nine years. This reinforces the need to increase the presence of women in the STEM fields.

	Table 5:	Employment in	1 STEM Occu	pations in 2009
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(thousands of workers)						
	Male		Female		Percent Female	
	2000	2009	2000	2009	2000	2009
STEM total	5,321	5,640	1,680	1,790	24%	24%
Computer science and math	2,202	2,534	940	929	30%	27%
Engineering	2,185	2,079	318	330	13%	14%
Physical and life sciences	551	553	310	374	36%	40%
STEM managers	382	474	111	157	23%	25%

Source: ESA calculations from Census 2000 and 2009 American Community Survey public-use microdata. Note: Estimates are for employed persons age 16 and over.

A report from Bloomberg says that in the overall market-place for all occupation, women hold 48 percent of the jobs, but in the STEM fields they only average 24 percent of the workers. It was also revealed that in STEM occupations women average 14 percent less in wages than their male counterparts. Women make an average of \$0.86 cents to every dollar a man earns. On the positive side, women in STEM fields earn 33 percent more than female peers in other fields. (Berman, 2011). In the general population women earn \$0.77 cents for every dollar earned by their male counterparts (Majority Staff of the Joint Economic Committee, 2010). The gender gap in the STEM fields is well documented and a national concern.

## **Reasons for the Gender Difference**

Throughout primary and secondary school, math and science courses experience roughly equal participation and performance from males and females. Genders prepare equally to pursue science and engineering majors in college. Somewhere between high school graduation and freshmen college something changes and women turn away from STEM and by college graduation men outnumber women in the sciences. Researchers find another decline in female participation from college graduation to the workplace (Hill et al., 2010). There are several possible reasons for this disparity, including cognitive differences, lack of interest, bias, discrimination, workplace environment, and family responsibilities.

*Cognitive Differences.* Researchers have found that boys and girls perform equally through high school science and math. There are no differences in intelligence between the sexes (Lynn & Irwing, 2004). However, some researchers have found that there are differences in cognitive abilities between genders. Boys tend to do better with spatial orientation and visualization, while girls perform better on verbal skills and perceptual speeds (Aronson, Fried, & Good, 2007; Hedges & Nowell, 1995). Although spatial skills are considered by many to be important in STEM, no research supports that it is essential for success in the field. Research does show that spatial skills can be improved with training; therefore, it should not be a barrier to individuals wishing to pursue a career in STEM (Baenninger & Newcombe, 1989). Although there is no definitive research stating cognitive differences influence decisions to enter STEM, there is enough evidence to suggest that it may play a role in the decision.

*Lack of Interest*. Another theory exists that women are 'just not interested' in STEM fields. According to a 2009 poll of young people 8-17 by the American Society for Quality only 5 percent of girls said they were interested in an engineering career while 24 percent of boys were interested (American Society for Quality, 2009). Even women who excel in mathematics are more likely to pursue degrees in humanities and social sciences than in science and engineering (Lubinski & Benbow, 1992).

Many factors can influence how interest in an occupation develops. Individual choice is a major reason to consider or eliminate a career. Other factors may include lack

of self-confidence in abilities, not feeling accepted within the field, or feeling the chance of success is limited. Culture can also direct individual interest in career selections by labeling professions gender specific (Hill et al., 2010).

*Bias.* Biases are tendencies or inclinations to hold a perspective at the expense of equally valid alternative perspectives. In the case of scientists and engineers, gender and ethnic bias may lead individuals to believe that men are better suited for the career in STEM than women. Even people who believe in gender equity may embrace biases and negative gender stereotypes concerning women in the science and mathematics fields (Valian, 1998). Many times society holds a negative opinion of women in "masculine" positions. Women are perceived as less competent, than men. Even when she is found competent a woman is often considered less likable than her male counterpart (Hill et al., 2010). Women may not want to be subjected to these biases or may themselves believe the stereotypes. In either case this bias makes them unwilling to seek a career in a field that they believe does not want them.

Discrimination. Sometimes bias crosses the border into discrimination.

Discrimination functions at many levels within science to include funding, employment and publications. These discriminatory practices can affect hiring and funding of females and cause their underrepresentation in STEM. Several studies have revealed that gender influences hiring recommendations. One survey sites a mock committee designed to hire professors. The committee reviewed fictitious candidate vitas. The researcher used the same vitas but changed the sex and names. In cases of both male and female reviewers, they gave women less credit than men for identical work, especially if the job was a stereotypically male position (Ceci & Williams, 2010).

*Workplace Environment.* One study of STEM professionals, *The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology*, found that many women in STEM feel isolated in their careers. This study states that 52 percent of highly qualified women quit their jobs due to a hostile work environment. In addition to isolation, they cite hostile macho cultures, unsupportive work environments, extreme work schedules, and unclear rules about career advancements as reasons for leaving the field (Hewlett, et al., 2008).

*Family Responsibilities.* When a person chooses a career in STEM he or she often experiences long hours, travel, and a high pressured work environment. To be successful in a STEM career, the employee must be willing to sacrifice personal time and energies. In American industry, family responsibilities are often considered barriers to advancement. This "family penalty" concept can destroy promising careers. Although society has come a long way in equalizing family responsibilities, women still find themselves in the position of primary care givers more often than men. In addition, at an age when careers are being built, women must face the dilemma of whether or not to have children. Although both genders experience family penalty pressure from the workplace, women are more likely to forego or delay marriage and children than men. In addition, women in STEM are more likely to partner with men who also work in the STEM field. When both partners have equally demanding work schedules, often a man's career is given priority and the woman suffers the career setbacks (Hill et al., 2010).

Another report from the Government Accounting Office reports that women in math-intensive fields prefer working fewer hours and in part-time positions so they can achieve a better work-family balance. Although 77 percent of female graduate students

believe a fulltime job is important for their careers, upon closer examination, 31 percent think it is acceptable to work part-time for a period, and 19 percent feel having a permanent part-time career is appropriate. Conversely, 81 percent of male graduates believe full time work is important, 9 percent feel part-time/temporary is appropriate, and 9 percent support permanent part-time employment (Ceci & Williams, 2010).

## Conclusion

The creation of new knowledge is essential for the continued growth and understanding of the world around us. Research is the method by which that knowledge is created and quantitative research was considered the principal method. It relied on the hard sciences to prove or disprove theory. As knowledge accumulated researchers rediscovered the need for the social sciences. Although different from the hard sciences, qualitative methods were important tools in understanding social phenomena. Researchers furiously debated the various paradigms. In time, qualitative methods were accepted by the research world. Researchers moved to the next phase by combining the two types of research into one called mixed-methods. The debate is ongoing, but mixedmethod models have made their way into the mainstream methodologies. Today research can be divided into three basic categories, quantitative, qualitative, and mixed-methods. Researchers understand the importance of viewing the larger picture, which is only available through the use of multiple methods of inquiry.

# **CHAPER III: METHODS**

This chapter describes the procedures used to investigate research methodologies by authors in peer-reviewed higher education journals. The variables included gender of the lead author, academic rank of the lead author and co-author; and the predominate methodology of research articles (quantitative, qualitative, or mixed).

#### **Statement of the Problem**

A great deal of debate concerning research methods has taken place over the years. Quantitative research has been well established within academia since the nineteenth century. It is based on the belief in one truth and one reality independent of human perception. It is also based on the belief that the investigator is capable of studying a phenomenon without influencing or being influenced by it (Guba & Lincoln, 1994; Sale, et al., 2002). This movement was called Positivism. In this paradigm, everything had to be confirmed by observation and experiment (Ryan, 2006; Trochim, 2006).

Qualitative research reached its peak of popularity in the mid-twentieth century. The qualitative paradigm was based on interpretivism (Altheide & Johnson, 1994; Guba & Lincoln, 1994; Kuzel & Like, 1991; Sale, et al., 2002; Secker & Milburn, 1995) where multiple realities and truths were believed to exist.

Mixed-methods research is the combination of both the quantitative and qualitative research paradigms. As mixed-methodology becomes more popular, researchers are busy establishing the foundations of this new paradigm. Researchers are

just beginning to understand the use of different data sets within one research project as a complementary way to design richer and more meaningful studies (Brannen, 2005).

This study examined five higher education journals within a five year period, 2006-2010, to determine the frequency with which various research methods were utilized.

# **Research Questions**

- 1. What is the predominant method of research for published authors in selected peer-reviewed higher education journals?
- 2. Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 3. Does academic rank play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 4. Do primary authors prefer co-authors of a certain academic rank in select peer-reviewed higher education journals?

### **Selection of Journals for Inclusion**

The journals selected for this study focused on a variety of issues of importance to faculty and administrators in higher education. Topics ranged from management issues, to technology, to emerging public policies. All journals were current and readily available online. The five journals used in this research are The Review of Higher Education, Journal of Computing in Higher Education, The Journal of Higher Education, Journal of Higher Education Policy and Management, and Higher Education Quarterly.

# Table 6: Journal Selections outlines the various journal selections. Also

included are the publication rates, publisher, acceptance rate, and method of review.

Journal	Published	Publisher	Acceptance Rate	Review
The Review of Higher	Quarterly	Johns Hopkins	5-8 percent	Peer-
Education (The Review)		University Press		reviewed
Journal of Computing in	Bi-yearly	Springer	20 percent	Double-
Higher Education (The		Publishing		blind
Journal)				peer-
				review
Journal of Higher	Bi-monthly	Ohio State	9 percent	Blind
Education (JHE)		University Press		peer-
				review
The Journal of Higher	Quarterly	Routledge,	20 percent	Editor
Education Policy and		Taylor and		screening
Management (JHEPM)		Francis Ltd.		and Peer-
				review
Higher Education Quarterly	Quarterly	Wiley-	20 percent	Peer
(HE)		Blackwell		reviewed

These journals were included as part of this study because they are the leading journals in their fields. According to a 2007 survey, *The Higher Education Executive Issues Study (HEEIS)*, many of the leading concerns of higher education at that time were Accountability and Assessment; Campus Management; Program and Curriculum Development; New Revenue and Fundraising; Student Retention; Enrollment Management and Growth; Faculty Development; Quality and Recruiting; Technology; Capital Needs; and Community Partnering. This survey included 557 presidents, provosts, deans, faculty, and other administrators from more than 500 institutions nationwide (DRC GROUP Incorporated, 2007). My experience, and an ongoing review of higher education publications, suggests that the issues of 2007 are similar to those of

2012. The five journals reviewed in this current study address many of the leading concerns of higher education and were often cited by administrators, faculty, and graduate students. In addition, these journals have been cited in various studies as educational standards (Budd & Magnuson, 2010; Hutchinson, 2004; Keister, 1990; Richardson & McLeod, 2009).

Although each journal focused on a single aspect of concern, the collection contained an assortment of issues faced by the higher education community. Articles featured in these journals pertain to research, leadership, instructional technology, faculty, administration, and policy all of which are quoted in the *HEEIS* study as primary challenges.

Another criterion for selection was the accessibility of the journal. Each journal was offered both in print and digital formats. Because this study covered a five-year span of time, online access made the tracking of archival copies of the older journals less complicated. Having access to only printed materials would have made the process more time consuming and problematic. With the information available in both printed and electronic formats the increased probability of locating all journals for the given timeframe was greatly increased.

#### **Data Collection and Analysis**

This study involved an analysis of selected author characteristics and research methods of articles published in five higher education journals for a five-year period, 2006-2010. Only research articles were included; other types of articles, such as book reviews and opinion pieces, were excluded. The number of articles reviewed for this study was 531. Analysis of the data was based on descriptive and Chi-square statistics.

Descriptive statistics were used to summarize the data set. It gave information such as sample size and characteristics such as gender, number of authors, and rank. In this study descriptive statistics were used to understand basic demographics on the articles and authors.

The Chi-square statistic compared categorical responses between two or more independent groups to determine if the actual events occur at the same frequency as expected. The Chi-square test set the confidence interval, or the upper and lower bounds, on the probability that the variation in data was due to chance. Basically the Chi-square established the probability of the differences being by chance. After collection and coding of the data, Statistical Package for the Social Sciences (SPSS) 16.0 was used to calculate inferential statistics for each research question (RQ) using the Chi-square test. Each question was tested at the p<0.05 level of significance.

For the first question, "What is the predominant method of research for published authors in selected peer-reviewed higher education journals?" a column was created that contains three methods of research: quantitative, qualitative and mixed-methods. The primary method for each article was identified and both descriptive and Chi-square statistics were run. Descriptives were used to calculate the percentage each method was used throughout the articles. The Chi-square test searched for significant differences in the methodologies used by the primary authors for their research.

The second question, "Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?" compared the lead author's gender to the methodology used in the articles to determine

the percent each method was used by each gender. To analyze this data a Chi-square cross tabulation was used.

The third question, "Does academic rank play a role in determining the method of research for published authors in select peer-reviewed higher education journals?" looked at the academic rank of the lead author and compared it to the method of research. Descriptive statistics were used to determine what percentage of each academic rank used each method of research. A Cross Tabulation Chi-square was used to determine the method of research by academic rank for the data. The academic ranks were professor, associate professor, assistant professor, lecturer, administrator, consultant, doctoral student, researcher, and other.

The final question, "Do primary authors prefer co-authors of a certain academic rank in selected peer-reviewed higher education journals?" helped determine senior faculty's involvement in mentoring junior faculty members in research. A separate Chisquare test was run on each rank of primary author to determine how often they chose a specific rank of co-authors. These data were used to determine if those co-authors were junior faculty members and the most often used rank.

Once the leading journals were identified, copies of all issues for the five year span were obtained and the variables for each article were collected. Variables included gender of the lead author, academic rank of the lead author and co-authors, and the predominate method of research used in the research articles (quantitative, qualitative, or mixed). Some data were not apparent from the published articles, specifically, genderambiguous first names and biographical statements that do not list academic rank. In those instances, institutional and personal web pages were searched to determine gender

and rank at the time of the publication's appearance. All data were collected by the researcher of this study.

# Data Collection Method

Data were stored in spreadsheet format. The first item developed was a Journal Information Database. That database was used to collect the initial journal information such as name, issues per year, and number of articles per issue. Additional information such as journal codes, a code used by the author to identify the various journals, was used to reduce the amount of data to be entered in the article database, thereby reducing the chance of input errors. Because the number of articles varied in each journal, it was necessary to record the month and date of each publication with the number of articles appearing in each. The spreadsheet was used to cross-check the number of collected articles in the Article Database.

 Table 7: Journal Information Database identified the various fields associated

 with the Journal Information Database. Each journal was identified by name, journal

 code, issues per year, month/year of publication, and number of articles per issue.

**Table 7: Journal Information Database** 

Journal Information
Journal Name
*Journal Code
Issues Per Year
Month/Year Of Publication
Number Of Articles Per Issue

\* Journal code is a code used by this author to identify journals.

After the basic journal information was gathered the author collected the journal articles. As each journal article was collected, it was saved in the appropriate folder, and the basic information was added to the Article Database. The journal code, volume, issue, month of publication, year, and name of file were recorded in the Article

Database. Once the articles were downloaded, a cross check was made with the Journal Information Database to assure all articles were collected and catalogued.

After the collection phase, each article was reviewed to extract the variables for the Article Database. **Table 8: Article Database** shows the complete design of the Article Database. It contained the following fields for each article: Journal code, volume, issue, month of publication, year, filename, article title, lead author, gender, academic rank, number of authors, rank of co-authors, number of pages, primary methodology, lead author's place of employment, multi-institution status, and institutional size.

Article Database
Journal code
Volume
Issue
Month of Publication
Year
Filename
Article Title
Lead Author
Gender of Lead Author
Academic Rank of Lead Author
Number Of Authors
Rank of Co-Author
Number Of Pages
Primary Methodology
Lead Author's Place Of Employment
Multi-institutional status
Institution Size

The data were analyzed with Statistical Package for the Social Sciences (SPSS).

This program contained the tools to run both the descriptive statistics and the Chi-square test.

# Summary

This study looked at five different education journals over a five-year span and determined the methodology used in the research. With the use of SPSS, statistical data were analyzed to establish a visual representation of the modern educational researcher. This representation included gender, rank and academic standings of authors and coauthors.

# CHAPTER FOUR: PRESENTATION AND ANALYSIS OF THE DATA

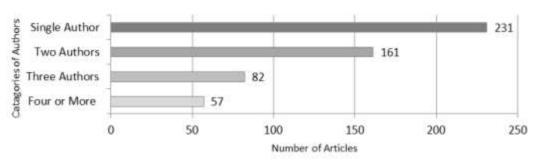
The research for this study consisted of analyzing five journals of higher education over a five-year period from 2006 through 2010. The journals include: *The Journal of Higher Education (JHE), The Review of Higher Education (The Review), The Journal of Computing in Higher Education (The Journal), The Journal of Higher Education Policy and Management (JHEPM), and Higher Education Quarterly (HE).* 

For this study, all the journals were accessed online and individual research articles were downloaded. After the initial download the individual articles were reviewed by the researcher to extract the demographics and variables. The demographics included the journal volume, issue and year, file name, article title, number of authors, number of co-authors, gender, rank of authors, number of pages, institution, and multiinstitutional status. Multi-institutional status refers to the places of employment for article authors. If authors were at the same institution it was a single institution, but if they came from more than one institution they were considered multi-institutional. The variables examined with inferential statistics include gender of the lead author, academic rank of the lead author and co-authors, and the predominate method of research used in the research articles (quantitative, qualitative, or mixed).

#### **Demographic Information**

Overall there was a total of 531 research articles and 1,078 authors. Each article ranged from 1 to 10 authors with an average of approximately 2 authors per article. The number of pages per article ranged from 6 to 49 with an average of 20 pages per article. **Figure 2: Authors per Article** indicates the number of authors who worked on the

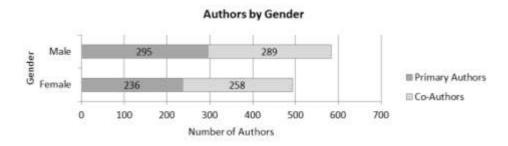
article. Nearly half, 231 (44%) were written by single authors. Of the remaining, 161 (30%) used two authors, 82 (15%) used 3 authors, and 57 (11%) used four or more authors.



**Authors per Article** 

**Figure 2: Authors per Article** 

**Figure 2: Authors by Gender** shows that 236 (44%) of the primary authors were female and 295 (56%) male. Of the 547 co-authors, 258 (47%) were female and 289 (53%) were male. Overall there was a total of 494 (46%) female and 584 (54%) male authors.



**Figure 3: Authors by Gender** 

#### **Ranking of Authors**

The ranks of authors were divided into the following categories: Professor, Associate Professor, Assistant Professor, Lecturer, Administrator, Consultant, Doctoral Student, Researchers, and Other. The ranks of professors, associate professors, and assistant professors were not defined because of their universal acceptance in higher education.

- A **Lecturer** for this study was defined as a senior lecturer, principal lecturer, lecturer, and reader. They can be employed full or part-time.
- **Consultants** were authors from the business world and include business partners, senior associates, independent scholars, economists, and associate curators.
- **Doctoral Student** included students working toward a terminal degree.
- **Researchers** referred to professional researchers from research institutions outside of higher education.
- Other referred to Honorary Senior Fellow, Postdoctoral Fellow, Entrepreneur, Knowledge Transfer Specialist, Senior Scholar, Alumna, Retired, Adjunct, and Instructors.

**Table 9: Academic Rank of Primary Author by Gender** summarizes the academic rank of primary authors by gender. Of the total (see Figure 3) 531 primary authors 295 (56%) were male, and the remaining 236 (44%) were female. The top five academic ranks that performed the most published research were Professors 118 (22%), Assistant Professors 116 (22%), and Administrators 85 (16%). When looking at gender data, the top three male ranks were Professors 76 (64%), Assistant Professors 61 (53%), and Administrators 46 (54%). For the female gender, the top three ranks that published were Assistant Professors 55 (47%), Professors 42 (36%), and Associate Professors 39 (48%). Ranks that published the least were Consultants 7 (1%), Other 22 (4%), and Doctoral Students 24 (5%). Of the primary authors who were doctoral students, females 13 (54%) published slightly more than males 11 (46%).

	Geno	ler		Overall
Academic Rank	Female	Male	Total	Percent
Administrator	39	46	85	16
Assistant Professor	55	61	116	22
Associate Professor	39	43	82	16
Consultant	1	6	7	1
Doctoral Student	13	11	24	5
Lecturer	22	21	43	8
Other	10	12	22	4
Professor	42	76	118	22
Researcher	15	19	34	6
Totals	236	295	531	100

Table 9: Academic Rank of Primary Author by Gender

### **Institutional Profile**

For this study, institutions were divided into four basic categories according to student population.

- Small institution had fewer than 20,000 students
- Medium institution had a student population between 20,000 and 39,999
- Large institution had a student population between 40,000 and 99,999
- Mega institution had a student population of over 100,000 students
- Other referred to research groups, national ministries, policy commissions, businesses, and independent researchers.

# Table 10: Articles by Institutional Classification and Location illustrated the

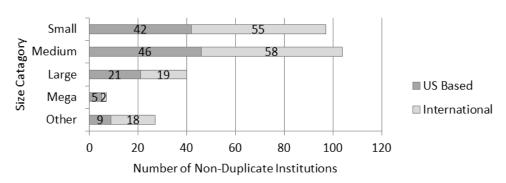
total number of articles in each institutional classification and whether the institution was located in the US or was International. There were 531 total articles with 255 (48%) of the primary author coming from the US and 276 (52%) coming from International institutions. Authors from medium institutions produced the most articles--208 (39%). Authors from small istitutions produced 152 (29%). The institutional size with the least published articles was Other at 28 (5%).

Institutional	Locat		
Classification	US	International	Total
Small	78	74	152
Medium	103	105	208
Large	42	66	108
Mega	13	22	35
Other	19	9	28
Totals	255	276	531

Table 10: Articles by Institutional Classification and Location

There was a total of 249 non-duplicate institutions of higher learning and 26 other groups had one or more articles published in the selected journals. **Figure 4: Non-duplicate Institutions by Size and Location** indicates the number of non-duplicate institutions, size of the institution, and whether it was based in the US or was International. The two types of institutions observed most often were medium at 104 (38%) and small at 95 (36%). Large institutions had 40 (14%) occurrences, Mega 7 (3%) and other 27 (10%).

The physical location of institutions that contributed to the journals were international institutions 153 (56%), and the remaining 122 (44%) were in the US. Institutions that contributed the most articles were medium international institutions 58 (21%) followed by small international institutions 55 (20%). Medium 46 (17%) and small 42 (15%) US institutions were third and fourth, respectively, in the number of articles contributed.

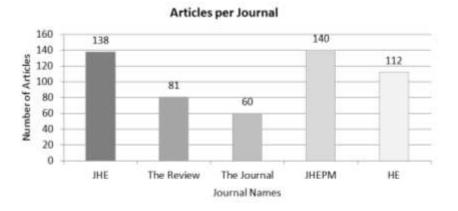


Non-Duplicate Institutions by Size

Figure 4: Non-duplicate Institutions by Size and Location

### Journal Profiles

There was a total of 531 articles reviewed for this study. **Figure 5: Articles per Journal** gives an overview of the number of articles per journal. The journal with the most articles was the *JHEPM* with a total of 140 (27%) articles, followed by the *JHE* with 138 (26%) articles. The *HE* was third with 112 (21%) followed by *The Review* with 81 (15%) *The Journal* had the least amount with 60 (11%) published articles.



**Figure 5: Articles per Journal** 

**Figure 6: Authors and Co-Authors per Journal by Gender** displays the author gender by journal. The journal with the most authors was the *JHE* with 301 (28%)

followed by *JHEPM* with 246 (23%) and the *HE* with 207 (20%). *The Review* with 155 (15%) and *The Journal* with 150 (14%) had the least number of authors. Of the total 1078 authors, the males totaled 581 (54%), whereas the females totaled 497 (46%).

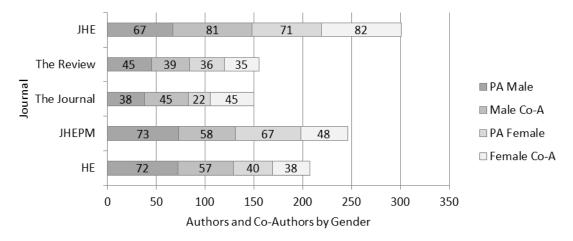
The *JHE* had 138 primary authors and 163 co-authors to total 301 authors. Primary authors were divided into 67 (49%) males and 71 (51%) females. There were 81 (50%) male and 82 (50%) female co-authors.

*The Review* had 81 primary authors and 74 co-authors to total 155 authors. Primary authors were divided into 45 (56%) males and 36 (44%) females. There were 39 (53%) male and 35 (47%) female co-authors.

*The Journal* had 60 primary authors and 90 co-authors to total 150 authors. Primary authors were divided into 38 (63%) males and 22 (37%) females. There were 45 (50%) male and 45 (50%) female co-authors.

The *JHEPM* had 140 primary authors and 106 co-authors to total 246 authors. Primary authors were divided into 73 (52 %) males and 67 (48%) females. There were 58 (55%) male and 48 (45%) female co-authors.

The *HE* had 112 primary authors and 95 co-authors to total 207 authors. Primary authors were divided into 72 (64%) males and 40 (36%) females. There were 57 (60%) male and 38 (40%) female co-authors.



#### Authors and Co-Authors per Journal by Gender

Figure 6: Authors and Co-Authors per Journal by Gender

The academic rank by journal showed that the leading primary authors overall were Professors 118 (22%), followed by Assistant Professors 116 (22%), and Administrators 85 (16%). **Table 11: Primary Author Rank by Journal** showed the top three ranks for *JHE* were Assistant Professors 53 (38%), Professors 28 (20%), and Associate Professors 21 (15%). *The Reviews* top ranks were Assistant Professors 38 (47%), Associate Professors 12 (15%), and Administrators 11 (14%). Assistant Professors 16 (27%), Associate Professors 14 (23%), and Professors 13 (22%) ranked the highest for *The Journal*. The JHEPM had the greatest number of authors at 140 (26%), and the top ranks include: Professor 30 (21%), Administrator 27 (19%), and Associate Professor 24 (17%). The *HE* had the highest number of Professor authors at 42 (38%), followed by 22 (20%) Administrators, and 19 (17%) Lecturers.

Table 11: Primary Author Rank by Journal

	Journals					Overall	
	JHE	The	The	JHEPM	HE	Total	Percentage
		Review	Journal				
Administrator	19	11	8	27	22	85	16
Assistant Professor	53	38	16	6	3	116	22
Associate Professor	21	12	14	24	11	82	15
Consultant	2	0	2	2	1	7	1
Doctoral Student	5	8	2	8	1	24	4
Lecturer	0	0	1	23	19	43	8
Other	8	2	5	5	4	22	4
Professor	26	7	13	30	42	118	22
Researcher	6	3	1	15	9	34	6
Totals	138	81	60	140	112	531	

*The Journal of Higher Education* publishes six issues a year for a total of 60 issues and averaged 5 articles per issue. For this study the *JHE* provided 138 research articles and had a total of 301 authors. The average number of authors per article was approximately 2 with an average article length of 27 pages. Seventy-four of the articles originated from single institutions, whereas sixty-four originated from multiple institutions. Of the institutions involved 131 were US based and the remaining 7 were International. The acceptance rate for this journal is nine percent.

*The Review of Higher Education* is published quarterly for a total of 20 issues and averaged 4 articles per issue. For this study, *The Review* provided 81 research articles and had a total of 155 authors. The average number of authors per article was approximately 2 with an average article length of 26 pages. Forty-nine of the articles originated from single institutions, whereas thirty-two originated from multiple institutions. Of the institutions involved 79 were US based and the remaining 2 were International. The acceptance rate for this journal is between five and eight percent.

*Journal of Computing in Higher Education* is published semi-annually until 2009, then in 2010 it added a third issue for a total of 11 issues and averaged 5 articles

per issue. For this study, *The Journal* provided 60 research articles and had a total of 150 authors. The average number of authors per article was approximately 3 with an average article length of 18 pages. Thirty-nine of the articles originated from single institutions, whereas twenty-one originated from multiple institutions. Of the institutions involved, 46 were US based and the remaining 14 were International. The acceptance rate for this journal is about 20 percent.

The Journal of Higher Education Policy and Management started publication with 3 issues a year in 2006 and 2007, in 2008 and 2009 it published 4 times a year and in 2010 had grown to 5 issues per year for a total of 19 issues and averaged 5 articles per issue. For this study the *JHEPM* provided 140 research articles and had a total of 246 authors. The average number of authors per article was approximately 2 with an average article length of 12 pages. One hundred and six of the articles originated from single institutions, while thirty-four originated from multiple institutions. Of the institutions involved 16 were US based and the remaining 124 were International. The acceptance rate for this journal is twenty percent.

The *Higher Education Quarterly* published quarterly, but in 2008 the first and second issues were combined into one publication. The *HE* created a total of 19 issues and averaged 6 articles per issue. For this study the *HE* provided 112 research articles and had a total of 207 authors. The average number of authors per article was approximately 2 with an average article length of 19 pages. Eighty-five of the articles originated from single institutions, while twenty-seven originated from multiple institutions. Of the institutions involved 4 were US based and 108 were International. The acceptance rate for this journal is twenty percent.

#### **Research Questions and Inferential Analysis**

After collection and coding of the data, SPSS 16.0 was used to calculate inferential statistics for each research question (RQ) using the Chi-square test. Each question was tested at the p<0.05 level of significance

#### **Research Question 1**

**RQ1:** What is the predominant method of research for published authors in selected peer-reviewed higher education journals?

Research Question 1 involved the 531 primary authors of this study and the research methods that they used: quantitative, qualitative, and mixed-methods. The Chi-square statistic was used to test for significant differences in the methodologies used by the primary authors for their research. **Table 12: RQ1 Frequencies of Research Methods Used by Primary Authors** presents the number of primary authors who used each method of research: quantitative 212 (40%), qualitative 249 (47%) and mix-methods 70 (13%). The Chi-square value attained resulted in a probability level of

p<0.05. Examining the observed frequencies in Table 10 indicated that there was a significant difference between the use of quantitative and mixed-methods and between qualitative and mix-methods research. There does not appear to be a significant difference between the use of quantitative and qualitative research methods for the primary authors of this study.

Table 12: RQ1 Frequencies of Research Metho	ods Used by Primary A	Authors
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Method	Observed N	Expected N	Chi-square
Quantitative	212	177.0	100.893
Qualitative	249	177.0	
Mix-Methods	70	177.0	<b>p</b> = .000
Totals	531	531	

#### **Research Queston 2**

RQ2: Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?

Research Question 2 involved the research methods used by the 531 primary authors of this study and their gender. A cross-tabulation Chi-square statistic was used to test for significant differences in the methodologies used by the primary authors for their research due to gender. **Table 13: RQ2 Research Methods Used by Primary Author due to Gender** presents the number of primary authors who used each method of research organized by gender. Female researchers used qualitative methods 117 (59%) times, quantitative methods 86 (30%) times, and mixed methods 33 (11%) times. Male researchers had similar results with qualitative methods used 132 (45%) times, quantitative 126 (43%) times, and mixed methods 37 (12%) times. The Chi-square value attained resulted in a probability level of p>0.05. This indicated that there was no significant difference in the use of research methods used due to gender. However, taking into consideration the different research methods, qualitative and quantitative methods appear to be used more often than mixed methods when considering gender, which is consistent with the findings in Research Question 1.

			Primary Metho	od	
Gen	der	Quantitative	Qualitative	Mix-Methods	Chi-square
Fema	ale	86	117	33	2.150
Male		126	132	37	p = 0.341
Total	s	212	249	70	

Table 13: RQ2 Research Methods Used by Primary Author due to Gender

#### **Research Question 3**

RQ3: Does academic rank play a role in determining the method of research for

published primary authors in select peer-reviewed higher education journals?

Research Question 3 involved the research methods used by the 531 primary authors of this study and their academic rank. A cross-tabulation Chi-square statistic was used to test for significant differences in the methodologies used by the primary authors for their research due to academic rank. **Table 14: RQ3 Research Methods Used by Primary Author due to Academic Rank** presents the number of primary authors who used each method of research organized by academic rank. The Chi-square value attained resulted in a probability level of p<0.05. Looking at the overall totals, Professors, Assistant Professors, Administrators, and Associate Professors appear to be publishing articles significantly more than all of the other ranks examined by this study. Taking into consideration the different research methods, qualitative and quantitative methods appear to be used more often than mixed methods when considering the rank of the primary authors, which is consistent with the findings in Research Question 1.

		Metho	ds	Total	Chi-square
Rank	Mixed	Qualitative	Quantitative		
Administrator	12	42	30	85	29.875
Assistant Professor	8	47	61	116	
Associate Professor	18	36	28	82	P = 0.019
Consultant	0	7	0	7	
Doctoral Student	2	13	9	24	
Lecturer	5	23	15	43	
Other	3	10	9	22	
Professor	19	50	49	118	
Researcher	2	21	11	34	
Totals	70	249	212	531	

Table 14: RQ3 Research Methods Used by Primary Author due to Academic Rank

#### **Research Question 4**

**RQ4:** Do primary authors prefer co-authors of a certain academic rank in selected peerreviewed higher education journals?

**Table 15: RQ4 Authors/Co-Authoring Demographics** shows that there were 300 articles that involved co-authors. The top performing primary author rank when published articles had two or more co-authors was professor. Overall they used co-authors 72 times. Professors authored with other professors 29 (40%) times, administrators 11(15%) times, and associate professors 8 (11%) times. Professors paired with doctoral students only 2 (2%) times in these journal articles. Assistant professors used co-authors 57 times. Of those 57 times, assistant professors used professors as co-authors 21(37%) times, assistant professors 8 (14%) times, and doctoral students 7 (12%) times. The associate professors used co-authors 52 times and were most likely to pair with professors 20 (38%), followed by associate professors 8 (15%) and doctoral students 7 (13%).

			Highes	t Rar	nk of Co	o-Aut	hor			
Primary Author Rank	Administrator	Assistant Professor	Associate Professor	Consultant	Doctoral Student	Lecturer	Other	Professor	Researcher	Total
Administrator	12	3	4	1	1	5	2	18	3	49
Assistant Professor	6	8	6	1	7	0	4	21	4	57
Associate Professor	4	5	8	0	7	0	5	20	3	52
Consultant	1	0	0	0	0	0	1	0	0	2
Doctoral Student	2	0	2	0	0	2	1	6	1	14
Lecturer	1	0	4	0	1	3	1	8	3	21
Other	3	1	2	1	0	1	0	6	0	14
Professor	11	6	8	4	2	4	2	29	6	72
Researcher	1	2	1	3	0	1	0	6	5	19
Total	41	25	35	10	18	16	16	114	25	300

Table 15: RQ4 Authors/Co-Authors De	emographics
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To test for significance, a Chi Square test was run for each type of primary author. **Table 16: RQ4 Primary Authors Use of Co-Authors** shows a summary of the Chi-square results. Academic rank did play a role in co-authoring (CA) for the following primary authors: Professor, Associate Professor, Assistant Professor, Administrator, and Lecturer. The data revealed that primary authors preferred a co-author with the rank of professor. In the case of administrators, the favored academic ranks of co-authors were split between professors and other administrators. Results further revealed academic ranks did not play a role in co-authoring for the following primary authors: Doctoral Students, Researchers, and Other. The rank of Consultant could not be calculated because of the low numbers of participants.

Main Author	Chi-square	P Value	Interpretation where
			significance occurs
Administrators	48.898	0.000	Professor CA
			Administrator CA
Assistant Professors	35.491	0.000	Professor CA
Associate Professors	27.154	0.000	Professor CA
Consultant	Unable to Compare	NA	NA
Doctoral Students	7.429	0.191	No Significance
Lectures	12.667	0.049	Professor CA
Other	8.286	0.141	No Significance
Professors	70.250	0.000	Professor CA
Researchers	9.368	0.154	No Significance

Table 16: RQ4 Primary Authors Use of Co-Authors

#### Summary

This study examined five journals of higher education to analyze the methods of research used by the higher education community. The methods of research utilized by the authors were quantitative, qualitative, and mixed-methods. The demographics revealed that there were a total of 531 articles with 531 primary authors and 547 co-authors. Overall there were 494 female and 584 male authors. The primary authors

observed most often in the data held the rank of professor 118 (22%), assistant professor 116 (22%), and administrator 85 (16%).

Overall this study revealed that men outnumber women in authoring research articles in the selected higher education journals. Qualitative research was most often the method of choice for authors of these journal articles for both genders. Men (43%) use quantitative research slightly more than women (30%). Mixed-method research is the least popular method of research for all authors, (11%) female and (12%) male. Professors are evenly divided in the qualitative/quantitative research methods, but assistant professors showed a preference for quantitative research. For the majority of primary authors, the co-author academic rank in the greatest demand was professor.

# CHAPTER FIVE: FINDINGS, CONCLUSIONS, ANCILLARY, AND RECOMMENDATIONS

#### **Purpose of the Study**

The purpose of this study was to examine the methods of research used by the higher education community in articles published in selected peer reviewed journal articles over a five year span from 2006 - 2010. This study examined the effects of author, gender, and academic rank on the research methods selected.

#### Population

The five journals used in this study were *Journal of Higher Education (JHE)*, The Review of Higher Education (The Review), Journal of Computing in Higher Education (The Journal), Journal of Higher Education Policy and Management (JHEPM), and Higher Education Quarterly (HE).

There was a total of 531 articles for this study; 231 had single authors; 162 had two authors; and 138 had three or more authors. The *JHE* had 138 articles; *The Review* consisted of 81; *The Journal* contained 60; the *JHEPM* had 140; and the *HE* contained 112 articles.

There were 1,078 authors, of which 531 were primary and 547 were co-authors. There were 548 male and 494 female authors. There were nine ranks of authors involved in the study: Professors, Associate Professors, Assistant Professors, Lecturers, Administrators, Doctoral Students, Researchers, Consultants, and Others.

The workplace locations of the primary authors varied, 255 were located in the US, while the remaining 276 were International. The sizes of the institutions included: Small (less than 20,000 students), Medium (between 20,000 and 39,999 students), Large

(between 40,000 and 99,999 students), Mega (over 100,000 students), and Other (referred to research groups, national ministries, policy commissions, businesses, and independent researchers). The majority of the authors came from medium institutions, followed by small and large.

#### Methods

The primary method of research used in this study was quantitative although a certain amount of qualitative research was necessary in coding data from each journal. Once the journals were downloaded, a review to extract the demographics and variables was performed. The variables studied with inferential statistics included gender of the lead author, academic rank of the lead author and co-authors, and the predominate method of research (quantitative, qualitative, or mixed).

The demographics included the journal volume, issue and year, file name, article title, number of authors, number of female co-authors, number of pages, and name of institution of lead author. An Excel spreadsheet was used to track the data. After its collection, a statistical program, SPSS, was used to test the level of significance for each research question and demographics.

#### **Study Limitations**

This study had three primary limitations: selection of journal, non-discipline specific, and generalizability. The journals selected for this study were from scholarly publications of higher education over a five-year period. Other journals and timeframes may produce different outcomes. This study examined higher education as a whole, and therefore, was not discipline specific. Specific disciplines may receive different results. The extent to which these findings may be generalized is indeterminate. All journals

associated with the study are available through printed media and accessible online. Journals that are strictly print or solely online were not included in this study therefore may experience different results.

#### Findings

There were four research questions associated with this study:

- 1. What is the predominant method of research for published authors in selected peer-reviewed higher education journals?
- 2. Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 3. Does academic rank play a role in determining the method of research for published authors in select peer-reviewed higher education journals?
- 4. Do primary authors prefer co-authors of a certain academic rank in selected peerreviewed higher education journals?

#### **Research Question 1**

What is the predominant method of research for published authors in selected peer-reviewed higher education journals?

Research Question 1 involved 531 primary authors and the research methods they used: quantitative, qualitative, and mixed-methods. The results revealed that there was a significant difference between the use of quantitative and mixed-methods and between qualitative and mixed-methods research. There did not appear to be a significant difference between the use of quantitative and qualitative research methods for the primary authors. Qualitative (47%) and quantitative (40%) were the most popular methods of research for the articles of this study. Mixed-method was used for 13 percent of the articles.

Qualitative and quantitative were the most popular methods of research for this study. Mixed-method was used for only 13 percent of the articles in this study. Although the study did not focus on the reasons researchers chose one method over another, there are factors that may help explain why they may not have participated in mixed-method research. There are three basic explanations: time and complexity, subject matter, and the lack of acceptance of the research method.

One of the primary strengths of mixed-method research is its ability to answer a broad range of questions. The researcher is not confined to one single method of research; therefore, questions can be asked that fit both the qualitative and quantitative paradigms. This depth of research can add insights and understandings that may not be present when a single method is used. Its strength is also its principal weakness. The use of both quantitative and qualitative methods makes it more complex and thereby more time consuming for the researcher. The researcher, if working alone, would need expertise in both methods of research to complete the project. It would also involve additional time to design and implement two separate research models to accommodate the subject (Johnson & Onwuegbuzie, 2004).

The second rationale to explain the unpopularity of mixed-methods research deals with subject matter. More often than not the subject, not the researcher, determines the method of research for the study. Some topics are better suited to quantitative and some for qualitative, while other topics need a combination of both methods. Quantitative research is used to measure and analyze relationships between variables; it is often used

when a basic knowledge of the subject is pre-existing (Denzin & Lincoln, 1994). One of the strengths of quantitative research is its generalizability to larger groups. Qualitative research focuses on process and meanings (Guba & Lincoln, 1994). It is best applied to small groups in which miniscule knowledge exists. Mixed-methods research is a combination of the two paradigms. It is best used when researchers need specific answers, but so little research is available on the topic that determining the right questions to ask is problematic.

Although mixed-methods research is more widely accepted today, it is not without its critics. There are supporters in all three methological camps. The quantitative disciples feel that quantitative research is the only true scientific method of research, thereby the only valid method to attain true knowledge. The qualitative advocates say their method is as valid as quantitative, it is just designed to answer different types of questions. Mixed-method supporters feel that research requires the use of both methods to achieve its full potential and that the co-mengling of the two produces a deeper knowledge than either single method (Sale, et al., 2002).

The fact that mixed-methods was less mature than qualitative and quantitative methods, combined with the debate surrounding the methodology, may make many researchers hestiant to use the method. To be accepted in the research community, researchers need to have their research recognized as valid. They are publishing to make and maintain their reputations and positions at institutions. Researchers recognize their careers depend on the acceptance of their scholarly activities.

#### **Research Queston 2**

Does gender play a role in determining the method of research for published authors in select peer-reviewed higher education journals?

Research Question 2 involved the research methods used by the 531 primary authors of this study according to gender. The Chi-square test indicated that there was no significant difference in the use of research methods due to gender.

Throughout this study, quantitative and qualitative were the most popular methods of research. For this question, a closer look revealed a slight gender gap with quantitative research. Although there is no significant difference, descriptive statistics show that females are 14 percent more likely to do qualitative research. Men are 13percent more likely to do quantitative research.

The reason for this difference was beyond the scope of this study, but because quantitative research is based on mathematical equations, it is reasonable to associate a relationship between gender participation in quantitative research and the national trend of gender disparity in the STEM fields. Research confirmed that there are many capable women working in mathematical fields, in our society women are not as likely to pursue careers in mathematics and sciences as men. In a study by the U.S. Department of Commerce in 2009 women were between 14 and 27 percent less likely to have careers in the STEM fields, such as math and engineering, then their male colleagues (Beede, etc., 2011).

#### **Research Question 3**

Does academic rank play a role in determining the method of research for published authors in select peer-reviewed higher education journals?

Research Question 3 involved the research methods used by the primary authors according to their academic rank. The data indicated Professors published 118 articles, Assistant Professors 116 articles, Administrators 85 articles, and Associate Professors 82 articles. Taking into consideration the different research methods, qualitative and quantitative methods appear to be used more often than mixed-methods when considering the rank of the primary authors.

Research Question 3 involved the research methods in the articles used by the primary authors and their academic rank. The test indicated 118 Professors, 116 Assistant Professors, 85 Administrators, and 82 Associate Professors published significantly more articles than all of the other ranks examined in this study. Qualitative and quantitative methods were used more often than mixed methods.

Professors were top performers in both qualitative and mixed-methods research. Assistant professors were the only top ranked authors who favored quantitative research, with all other ranks preferring qualitative. None of the top authors preferred mixedmethods. The reason for these differences is unclear, but pure speculation would suggest, as discussed earlier, mixed-methods research is relativity new and although gaining popularity, is not as widely accepted as qualitative and quantitative methods.

As for the difference in methodological choices by assistant professors, the reasoning may be found in the researcher's status within their profession. The assistant professor would typically be the early stage of his\her career and would choose to use the fastest and least controversial method. As careers advance, associate and full professors are more likely to be open to alternative methods of research. Because administrators were not classified by rank for this study, the administrator researchers could be at

various levels of their career. When examined closely, their numbers are similar to the associate professor, favoring qualitative methods but still reliant on quantitative research.

#### **Research Question 4**

Do primary authors prefer co-authors of a certain academic rank in selected peer-reviewed higher education journals?

This study had 300 articles with two or more authors. Authors were categorized into the following nine ranks: Professors, Associate Professors, Assistant Professors, Lecturers, Administrator, Doctoral Students, Researchers, Consultants and Others. The data showed that five of the nine categories of primary authors were significantly influenced by the academic rank of the co-author. The ranks of Professor, Associate Professor, Assistant Professor, Administrator, and Lecturer preferred to co-author with a professor. The ranks of Doctoral Student, Researchers, and Others were not significant, whereas the rank of Consultant could not be calculated because of the low number of participants.

Research Question 4 involved the primary author's choice of co-authors according to academic rank. This research found that most authors prefer to work with professors when publishing research findings. The reason for this trend of seeking professors as co-authors is not addressed in this study, but expertise and mentorship could explain this occurrence.

The nature of rank is to recognize the amount of time and expertise a person has within the academic world. A professor has already experienced the trial and error associated with junior faculty positions and has earned a reputation as an expert in the field. Junior faculty members struggling to build careers often look to professors as

examples. Generally, an expert co-author imparts a certain amount of name recognition to the work and help junior faculty get published. Therefore, part of the reason professors were such a high percentage of co-authors could be because junior faculty members actively sought their assistance.

The second rationale, mentorship, would involve the senior ranking member of the faculty, professors, lending their expertise and leadership to the team. Professors are reasonably secure in their careers and understand that their professional growth is fostered by previous generations.

#### Implications

The basic function of higher education is to educate and to create knowledge. Research is the means by which educators create knowledge. Publishing their research not only allows researchers to share the new knowledge, but also puts that knowledge into the public arena for peer verification of accuracy. This process adds credibility to the author's reputation and profession as well as contributes to the overall body of accumulated knowledge.

The findings of this study will be useful for future researchers in understanding the changing landscape of research methodologies. The acceptance of a broader range of methodologies opens the door for more researchers to explore topics previously untouchable because the methodology to acquire the knowledge was considered unscientific. Researchers are learning not only how to research differently, but also how to take apparently opposite paradigms and combine them into a complementary research design. Examining research in different ways can prove invaluable as new questions and topics are explored.

The old military saying, "Rank has its privileges," holds true with academic rank and research. According to this study, the higher the rank of the researcher, the more willing he or she is to vary from the traditional methods of research. In scientific research quantitative research is traditional, the lowest academic rank, the assistant professor, performed the most quantitative research, whereas the highest rank, professor, performed the most research in both qualitative and mixed-methods. This finding suggests that professors are leading the way in the acceptance of non-traditional research methods. It further suggests that as the door opens to new methodologies, more researchers will become involved in non-traditional choices.

#### **Summary**

This study revealed the following:

- There is a significant difference between the use of quantitative and mixed-methods and between qualitative and mixed-methods research.
- There is no significant difference in the use of research methods due to gender.
- There is a significant difference in publishing based on rank.
- There is a significant difference among ranks when considering coauthors.

#### **Recommendations for Further Study**

The following recommendations for further study emerged from the findings and analysis of data.

- The findings of this study can be generalized only to the five higher education journals used in the study. A recommendation for further study would be a replication of this study with a different set of journals.
- 2. Another recommendation for further study would be to investigate the research methodologies of professionals outside of the higher education community.
- 3. A longitudinal study of how research methodologies have changed with the use of technology and the Internet would be another topic for future studies.
- Another recommendation for further study would be to investigate how institutional size, as well as Carnegie classification, impacts the method of research used by the primary author.
- An analysis of the changes across journals in methodology as reflected in research articles.
- 6. A final recommendation for further study would be to research the methodology preferences of journals published in other countries compared to the US.

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# APPENDICES

# APPENDIX A

### **Journal Information Database**

# Journal Information Database

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# **APPENDIX B**

### Article Database

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1 2006 1 2006 1 2006	19413783. Determining Public 2-Year College Faculty's Intent to Leave: An Empirical Model	Vicki J. Rosser	Female	Assistant Professo	2 Professor	-	0 24	Quantitative N	d University of Missouri	34000 Medium
1 2006 1 2006 1 2006		Matthew J. Mayhew	Male	Administrator	2 Administrator	-		Quantitative Y	University of North Carolina	223000 Mega
1 2006		Paul D. Umbach	Male	Assistant Professo	2 Professor			Quantitative 7	C University of Iowa	31000 Medium
	1941/2010 Revolte Monte Terminism in Higher Equivation Storotal Ship, An Analysis of Three Core yournais 1941/2021 E-outlin Monte Torotione Education Storotal and Economical Valuations of the Core yournais	John C Louin	remale Malo	Assistant Proresso Administrator			7 20	Quanticative P	d University or Missouri Month Paroline Otate I Iniversity	39000 Medium
1 2006			Female	Professor	3 Administrator	•		Quainative N	d Investin of Minnesota	53000 Larne
2 2006		Andrew L. Luna	Male	Administrator	1			Qualitative N	University of Vest Georgia	12000 Small
2 2006		Deborah J. Anderson	Female	Assistant Professo	2 Professor	0		Quantitative Y	/ University of Arizona	<ul> <li>40000 Large</li> </ul>
2 2006	1998334 Institutional Selectivity and Good Practices in Undergraduate Education: How Strong is the Link?	Ernest T. Pascarella	Male	Professor	3 Professor	•	88	Quantitative	University of Iowa	31000 Medium
9002 2	13383.45 Pincentwes for Managed uncommendation of incremes based training and endogenging in Large Fuolic Research universities and estimation of the state of the Biolic Collins Collins (Collins) and the state of the Biolic Collins) and the state of the Biolic Collins (Collins) and the state of the Biolic Collins) and the state of the state of the state of the Biolic Collins) and the state of the state	ers James L. Hearn Al Masshork Gromen	Formatio	Protessor Accietant Disofacco	C Protessor	ve		Dustantino A	V anderbilt University I Initiative of Deservationais	13000 Madium
2 2006	barvaging - Addemic Disaster Areas: The Diack Conege response to Critiskopher Verioks and David Inderstanding the Infilience of the Financial Context of Institutions on Student Persistence at Four-Ver	itie Marun A Titue	Male	Assistant Professo			8 8	Quantitative N	<ul> <li>Morth Carolina State Injuersity</li> </ul>	23000 Medium
3 2006		Stenber L Des.lardins	Male	Associate Professo	2 Professor	0		Quantitative Y	/ University of Michigan	42000 Large
3 2006		Mitchell J. Chang	Female	Associate Professo	2 Doctoral Student	0		Quantitative N	d University of California	53000 Mega
3 2006		Christopher C. Morphew	Male	Associate Professo	2 Assistant Professor	0		Qualitative Y	University of Georgia	35000 Medium
3 2006		Rebecca A. London	Female	Associate Professo	-	0	0 25	Quantitative N	4 University of California	<ul> <li>153000 Mega</li> </ul>
3 2006		Kimberly A. Goyette	Female	Assistant Professo	2 Assistant Professor	-		Quantitative Y	7 Temple University	<ul> <li>38000 Medium</li> </ul>
4 2006		Melinda Wood	Female	Administrator	2 Administrator			Mixed	<ul> <li>University of Hawaii</li> </ul>	51000 Large
4 2006	2012/05/ Feaching Awards: What Up They Award? 2012/05/ District Feaching Awards: What Up They Award?	Nancy Van Note Chism	remale Mate	Protessor			8 8	Qualitative P	d Indiana University	10,000 C= 1
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4		Elizabeth J. Allan	Female	Assistant Professo	2 Assistant Professor	,	0 28	Mixed	d University of Maine	12000 Small
4		Marta Tienda	Female	Professor	2 Reseacher	-	0	Quantitative	4 Princeton University	8.000 Smal
ŝ		Brian Pusser	Male	Assistant Professo	2 Professor	-		Quantitative Y	C University of Virginia	21000 Medium
7 5 2006	21438266 Greener Pastures: Faculty Turnover Intent in Urban Public Universities	Cheryl J. Daly	Female	Assistant Professo	2 Assistant Professor	0	0 28	Quantitative 1	University of New Hampshire	<ul> <li>15000 Small</li> </ul>
Ð		Adrianna Kezar	Female	Associate Professo	-	0		Qualitative N	University of Southern California	7000 Medium
Ð	Organizational Theory and Student Cheating: Explanation, Responses, and Strategies	Tricia Bertram Gallant	Female	Doctoral Student	2 Administrator	0		Qualitative N	d University of San Diego	8000 Small
LO I		Terry T. Ishitani	Male	Researcher		0		Quantitative N	d Indiana State University	12,000 Small
7 5 2006	2433810 New Evidence on Lotlege Hemediation		Male	Protessor	2 Protessor		3 8	Lyuantitative 7	C University of New York in Prague	/00 Small
6	Examining Linterences in order outport for Ingret Education: A Comparative Study of State Appropri- Pathicking Dublic Higher Education Reviewing Boarde Perfermance, Beaulte of a Mational Study of	der Liddig J. Weerts Init Adriana Kasar	Familia	Assistant Floresco Accorists Professo	2 Multilistrator		3 4	Dusie eine h	Florida Atlantic University Initiateity of Southern Palifornia	27000 Madi
77 6 2006	22003050 fremming braine righter toucearing brands refrontance: results of a fueronal souglor tooverning boards in the unit Antanian exam 22533957 Concentualizing the Academic Life: Graduate Students Perspectives	Joli Adrianna Nezar Jefferu P. Bieber	Male	Associate Professo Associate Professo	2 Associate Professor	,	F 82	Qualitative h	<ul> <li>University or southern California</li> <li>University of Kentucky</li> </ul>	28000 Medium
6		Stephanie M. McClure	Female	Assistant Professo	-	0	0	Qualitative	d Georgia College & State University	7,000 Small
°		Stephen F. Hard	Male	Other	2 Associate Professor	0	0 23	Quantitative N	4 Briarwood College	637 Small
°	Effects of Part-Time Faculty Employment on Community College Graduation Rates	Daniel Jacoby	Male	Administrator	-	•	0 23	Quantitative N	University of Washington	<ul> <li>43000 Large</li> </ul>
-		Edi Robyn Marschke	Female	Other	2 Professor	e .	0 26	Quantitative N	University of Colorado	29000 Medium
		Joe F. Donaldson	Male	Professor	2 Professor		5 5	Qualitative N	University of Missouri	34000 Medium
1 2007	2.300.4471 Freedord Systems and NSF University Hesetoric Lenters in Finipact of 1 enure on University Scientists? Valuation of Applied and L.F. Load Gooddman 2.300.4661 Andreads Practice Practice Scientifications A. Practice Scientifications (Crustice Scientifications)	d L P. Uraig Boardman Div Mondow	Male	Doctoral Student	2 Uther		R2 8	Quantitative 7	C Georgia Institute of Lechnology C Obt-Access Costs University	21,000 Medium
		Luic F Vila	Male	Administrator	2 Administrator		3 6	Quantitative 7	<ul> <li>Unidencial order outgetang</li> <li>Illinuercitu of Valencial Spain</li> </ul>	54000 Large
~	Settling into Campus Life: Differences by Race/Ethnicity in College Involvement and Outcomes	Mary J. Fischer	Female	Assistant Professo	-	0	0 37	Quantitative	University of Connecticut	30000 Medium
2 2007		Michael B. Mills	Male	Assistant Professo	-	0	0 26	Qualitative N	d University of South Florida	<ul> <li>48000 Large</li> </ul>
2 2007	24109020 Predictors of Delayed College Enrollment and the Impact of Socioeconomic Status	Heather T. Rowan-Kenyon	Female	Assistant Professo	-	0	0 27	Quantitative N	d University of Virginia	21000 Medium
2 2007		Veronica Boix Mansilla	Female	Researcher	2 Reseacher		0 24	Qualitative N	d Harvard Universitig	22,000 Medium
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-	Public Opinion, Partisan Identification, and Higher Education Policy	William R. Doyle	Male	Assistant Professo	-	. 0		Quantitative N	U Vanderbilt University	13000 Small
4		Patricia C. Kelley	Female	Assistant Professo	2 Doctoral Student	-	1 28	Qualitative Y	/ University of Washington	<ul> <li>43000 Large</li> </ul>
4		Craig Boardman	Male	Researcher	2 Professor	0		Qualitative Y	Science and Technology Policy Ins	0 Other
4 2007	54325114 Course Shopping in Uban Community Colleges: An Analysis of Student Drop and Add Activities	Linda Serra Hagedorn	Female	Professor Administration	3 Assistant Professor	~ ~	88	Quantitative 7	C University of Florida	51000 Large
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5 2007		Robert K. Toutkoushian	Male	Associate Professo	2 Reseacher		8.8	Quantitative 1	/ Indiana University	110,000 Mega
ŝ	The Spider Web of Oversight: An Analysis of External Oversight of Higher Education	Jason E. Lane	Male	Assistant Professo	-	0	0 30	Qualitative N	d University at Albany	18000 Small
9		Michael K. McLendon	Male	Associate Professo	2 Professor	•		Mixed	Vanderbilt University	13000 Small
6 2007	2805915 Curriculum Collaboration: A Key to Continuous Program Renewal	Charlotte L. Briggs	Female	Assistant Professo			85	Qualitative N	University of Illinois	42000 Large
1 2008	28-355-25.1 Pre Lordinates of Spiritual Studgie Luting in e Loriege Frans 28:345201 Instituences con Labor Market Entrocomes of Britisha Ramaisum Charlinan Exadinates: & Markinal Studi	Augssairu. Brijant Terrelli Stranborn	Male	Assistant Professo Accietant Professo	2 FTORESSOL 1		17 US	Quantitative 1 Quantitative A	d North Carolina State University d I Iniversity of Tennessee	28000 Medium
1 2008		Raphael M. Guilloru	Male	Assistant Professo	2 Professor	,		Gualitative Y	<ul> <li>Eastern Washington University</li> </ul>	- 12.000 Small
1 2008		Karen Seashore Louis	Female	Professor	2 Associate Professor	2		Qualitative Y	C University of Minnesota	53000 Large
2 2008	Examining Organizational Contextual Features that Affect Implementation of Equity Initiatives	Adrianna Kezar	Female	Associate Professo	2 Assistant Professor	-		Mixed	University of Southern California	37000 Medium
2 2008		Courtney H. Thornton	Female 1	Researcher	2 Assistant Professor		88	Qualitative N	Vorth Carolina State University	33000 Medium
2 2008	23395333 Being All of Mer Black Students Negotiating Multiple Identities	Dafina Lazarus Stewart	Female	Assistant Professo		•		Qualitative N	4 Bowling Green State University	20000 Medium

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	79 3 2008	"What's too much and what's too little?": The Process of Becoming an Independent Researcher in Doctoral Education	usan K. Gardner	Female	Assistant Professo	-			University of Maine	Y 12000 Small
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	79 4 2008	Understanding Leadership Strategies for Addressing the Politics of Diversity	drianna Kezar	Female	Associate Professo	-			University of Southern California	Y 37000 Medium
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1         0	-	i Towards a Theory of Doctoral Student Professional Identity Development: A Developmental Networks Approach	icki (Baker) Sweitzer	Female	Assistant Professo	-		litative N	Albion College	Y 1600 Small
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0         0	1 2009	Engaging with Difference Matters: Longitudinal Student Outcomes of Co-Curricular Service-Learning Programs	heryl Keen	Female	Researcher	2 Administrator 1		~	Walden University	Y 48000 Lar
0         0	1 2009	Maintaining Credibility and Authority as an Instructor of Color in Diversity-Education Classrooms: A Qualitative Inquiry	ary Perry	Male 1	Assistant Professo	3 Professor		Itative Y	Seattle University	Y 8000 Srr
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7 2002 2000094528887 Carrent Area and Counce Effective Council and Activity Tendes and Activity and Activi	4 2010	Diversity and Moral Reasoning: How Negative Diverse Peer Interactions Affect the Development of Moral Reasoning in Underg	latthew J. Mayhew	Male	Assistant Professo	_	0	ntitative Y	New York University	Y 44000 Large
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888	1 2006 29 Ibaldwin		Booer G. Baldwin	Male	Professor	2 Administrator	2		Michigan State University	48000 Large
2 29	1 2006 29.1bartlett		Robin L. Bartlett	Female	Professor	2 Doctoral Student	-		Denison University	2.200 Small
2 29	1 2006 29.1brooks		Bachelle L. Brooks	Female	Administrator	-	0			38000 Medium
	1 2006 29.ffavero	ademic Discipline as a Discriminator of Academic Deans' Administrative Behaviors	Marietta Del Favero	Female	Assistant Professo		0			1000 Small
2 29 1	1 2006 29.1perna		Laura V. Perna	Female	Associate Professo	-	0	Quantitative		22000 Medium
2 29 2	2 2006 29.2baird		Katherine Baird	Female	Assistant Professo	-	0	27 Quantitative N		43000 Large
2 29 2	2 2006 29.2dowd	Equity and Efficiency of Community College Appropriations: The Role of Local Financing	Alicia C. Dowd	Female	Assistant Professo	2 Administrator (	0		University of Massachusetts Y	69000 Large
2 29 2	2 2006 29.2ehrenberg	e Students	Ronald G. Ehrenberg	Male	Professor	2 Assistant Professor (	0		Cornell University Y	21,000 Medium
2 29 2	2 2006 29.2shin		Jung-cheol Shin	Male	Administrator	2 Professor (	0		Korean Ministry of Education N	0 Other
2 29 3	3 2006 29.3anderson	liminary Policy Analysis	Gregory M. Anderson	Male	Associate Professo	2 Reseacher	-		Columbia University Y	27,606 Medium
2 29 3	3 2006 29.3gunzenhauser		Michael G. Gunzenhauser	Male	Associate Professo	2 Assistant Professor	•		University of Pittsburgh	29000 Medium
2 29 3	3 2006 29.3norman		Marie Norman	Female	Other	2 Administrator	2	33 Qualitative N	Carnegie Mellon	11,000 Small
2 29 3	3 2006 29.3titus	inancial Aspects of a State's Higher Education Policy on College Completion	Marvin A. Titus	Male	Assistant Professo	-	0		I North Carolina State University Y	33000 Medium
2 29 4	I 2006 29.4butin	The Limits of Service-Learning in Higher Education	Dan M. Butin	Male	Assistant Professo	-	0	26 Qualitative N	I Gettysburg College	2,700 Small
2 29 4	k 2006 29.4guiffrida		Douglas A. Guiffrida	Male	Assistant Professo	-	0	22 Qualitative N	I University of Rochester Y	9000 Small
2 29 4	4 2006 29.4pike	mpus Environment	Gary R. Pike	Male	Administrator	2 Professor	0		Mississippi State University	22000 Medium
2 29	1 2006 29.4roksa		Josipa Roksa	Female	Doctoral Student	-	-		I New York University Y	44000 Large
- ·	1 2007 30.1allan	her Education	Elizabeth J. Allan	Female 1	Associate Profess	2 Associate Professor	0		University of Maine	12000 Small
8 90	1 2007 301-51K	Appling the regression-uscontinuity Legistic to the Castanty with Non-Handom Assignment	Saliy Andrea Lesik	remale Maria	Assistant Professo			13 Guandiadive IN	Lentral Connecticut State Universi 7	13,000 Small
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2 30 2	2 2007 30.2umbach	tingent Faculty on Undergraduate Education	Paul D. Umbach	Male	Assistant Professo	-	0		University of Iowa	31000 Medium
2 30 3			Consuelo Arbona	Female	Professor	2 Professor	0		I University of Houston	40000 Large
2 30 3			Kevin Kinser	Male	Assistant Professo	-	0		I University at Albany Y	18000 Small
2 30 3	3 2007 30.3reason		Robert D. Reason	Male	Assistant Professo	2 Professor (	1		I Pennsylvania State University Y	95000 Large
2 30 3			Edith A. Rusch	Female	Associate Professo	2 Administrator	1		University of Nevada Las Vegas Y	29000 Medium
2 30 4	1 2007 30.4cox	I College	Bradley E. Cox	Male	Doctoral Student	2 Administrator	-		Pennsylvania State University Y	95000 Large
5 30 5 30 5 30			Tricia Bertram Gallant	Female r	Administrator		0	21 Qualitative N	University of California	153000 Mega
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2 3			Gregory C. Volniak	Male	Researcher	2 Assistant Professor	0	27 Qualitative Y	University of Chicago	16000 Small
2 31 1	1 2008 31.1zhanq	ilusis at National, State, and Institutional Levels	LIANG ZHANG	Male	Assistant Professo	-	0	25 Quantitative N	Vanderbilt University	13000 Small
2 31 1	1 2008 31.2lindholm	Spirituality and Pedagogy: Faculty's Spirituality and Use of Student-Centered Approaches to Undergraduate Teaching	Jennifer A. Lindholm	Female	Administrator	2 Professor	1	23 Quantitative Y	University of California Y	159000 Mega
2 31 2	2 2008 31.2perna	chools	Laura V. Perna	Female	Associate Professo	3 Administrator	3		University of Pennsylvania Y	22000 Medium
2 31 2	2 2008 31.2rhee		Byung-Shik Rhee	Male	Other	-	0	23 Qualitative N	A NOLA	40000 Large
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ه ه	1 2008 314.chang	s in Biomedical and Behavioral Science N	Mitchell J. Chang	Male	Associate Professo	2 Doctoral Student	0		1 UCLA	40000 Large
ه ع		Socioeconomic Stratification of Community College Transfer Access in the 1980s and 1990s. Evidence from HS&B and NELS /	Alicia C. Dowd	Female	Assistant Professo	2 Assistant Professor	0	24 Quantitative N	University of Southern California	37000 Medium
2 31 4	4 2008 314.melquizo		Tatiana Melquizo	Female	Assistant Professo	2 Professor	1	31 Quantitative Y	University of Southern California Y	37000 Medium
2 31 4	I 2008 314.porter		Stephen R. Porter	Male	Associate Professo	2 Associate Professor (	0		Iowa State University	30,000 Medium
2 32			Trina M. Callie	Female	Administrator	2 Associate Professor (	0		I University of Arizona Y	40000 Large
2 32 1	1 2009 32.1.jorgensen	ng Balance	James D. Jorgensen	Male	Doctoral Student	2 Professor	-		University of Iowa	31000 Medium
2 32		uation Model	Samuel D. Museus	Male	Assistant Professo	2 Doctoral Student			University of Massachusetts Y	69000 Large
38	1 2009 32.1.weerts	Building a two-waj street. Challenges and Upportunities for Community Engagement at Research Universities	Lavid J. Weerts	Male	Assistant Professo	2 Associate Professor	- 0	34 Qualitative Y	University of Minnesota	53000 Large
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2 32	2 2009 32.2 steinberg	ence among U.S. Colleges and Universities	Matthew P. Steinberg	Male	Doctoral Student	2 Professor	0		University of Chicago	16000 Small
2 32 3	3 2009 32.3.conway		Katherine M. Conway	Female	Assistant Professo	1	0	32 Quantitative N	I Borough of Manhattan Community Y	22000 Medium
2 32 3		ity College	Rebecca D. Cox	Female	Assistant Professo	-	0		I Seton Hall University Y	9800 Small
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25 27	2010/02/22/2010/22	Undocumented Longe Students, Lasancia, and Financial Auts. A Lectmond 1000e Auto Statistica S A Leader to Statistica risk Primarica Hubble Auto Auto Auto Autoritational	IVIICNAELA. UIIVAS	Formula	Protect Courses			TU QUAIRACIVE N	University or Houston	40000 Large
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2 32 4	‡ 2009 32.4.mayhew	icting Student Cheating	Matthew J. Mayhew	Male	Assistant Professo	3 Associate Professor	0		New York University	44000 Large
2 32 4	4 2009 32.4.ness	e Case Study of Lottery Beneficiaries	Erik C. Ness	Male	Assistant Professo	2 Dootoral Student	-		University of Pittsburgh Y	29000 Medium
2 33	1 2010 33.1.christakis	Gubernatorial Authority and Influence on Public Higher Education	Michael N. Christakis	Male .	Administrator	-	0	23 Quantitative N	University at Albany	18000 Small

2010 33.1.museus					DOCALD LI MIP/SIGON			,			
2010 33.1.winkle-wagner		The Perpetual Homelessness of College Experiences: Tensions between Home and Campus for African American Women	Rachelle Winkle-Wagner	Female	Assistant Professo	-	•	0 37	. Qualitative N	University of Nebraska	34000 Medium
2010 33.2.bahr		Revisiting the Efficacy of Postsecondary Remediation The Moderating Effects of Depth/Breadth of Deficiency	Peter Riley Bahr	Male	Assistant Professo	-	0	0 29		University of Michigan	42000 Large
2010 33.2.deil-amen		Circumscribed Agency The Relevance of Standardized College Entrance Exams for Low SES High School Students	Regina Deil-Amen	Female	Assistant Professo	2 Assistant Professor	-	0 35		University of Arizona	40000 Large
2010 33.2.flores		State Dream Acts The Effect of In-State Resident Tuition Policies and Undocumented Latino Students	Stella M. Flores	Female	Assistant Professo	-	0	0 45	Quantitative N	Vanderbilt University	13000 Small
2010 33.2.li		They Need Help Transfer Students from Four-Year to Four-Year Institutions	DaiLi	Female	Researcher	-	0	0	Cuantitative N	California State University	418,000 Mega
2010 33.3.mayhew		A Multi-Institutional Assessment of Moral Reasoning Development among First-Year Students		Male	Assistant Professo	2 Professor	-	8		New York University	44000 Large
2010 33.3.nelson-laird		How Gender and Race Moderate the Effect of Interactions across Difference on Student Perceptions of the Campus Environme		Male	Assistant Professo	2 Administrator	-	0 24	- Quantitative Y	Indiana University	110,000 Mega
		Faculty and Institutional Factors that Promote Student Encounters with Difference in First-Year Courses	Robert D. Reason	Male	Associate Professo	2 Professor	-	2		Pennsylvania State University	95000 Large
ZUTU 33.3.strayhorn	_	When Hace and Gender Collide: Social and Cultural Capital's Influence on the Academic Achievement of African American and L	I errell L. Strayhorn	Male	Pissociate Professo			97 : 0 :		University of Lennessee	28000 Medium
2010 33.4.bowman		Disequilibrium and Hesolution: The Nonlinear Effects of Diversity Courses on Well-Being and Urientations toward	Nicholas A. Bowman	Male	Hesearoher			0 28		University of Notre Dame	12000 Small
2010 33.4.desjardins		Simulating the Expects of Financial Ald Packages on College Student stopout, Heenroliment spels, and traduction Chances	Stephen L. Lesuardins	Male .	Protessor			8		University of Michigan	42000 Large
2010 53.4.HOFA			Defnany H. Flora	remale	Administrator	- •	- ‹	• •	Qualitative N	Virginia Leon University	31000 Medium
U 55.4.Shahjahan		Toward a spiritual Praxis. The Froe or spirituality among Facury or Coror Leaching for Social Justice	Hiyad Anmed Shanjahan	alale L	Assistant Protesso		•	• •		Ivitami University	21000 Miedum
84	elgesang	What Determines Foouly-Engaged Scholarship?	Lori J. Vogelgesang	remale	Administrator	2 Heseacher	N (	8		University of California	159000 Mega
ģg	enge or Lonnect	Inchainenge of Connect Chainenge of Connect? Unalogue in Unline Learning Environments	Irena M. Paulus	remale	Assistant Protesso			0		University of Lennessee	28000 Medium
2 g	ges in Academic	Inchanges in Academic Lhanges in Academic Lishonesty among MIS Majors between 1939 and 2004	BOD S. Brown	- Male	Protessor	2 Associate Professor		2 5		Marshall University	10000 Small
2006 18-1Comput	outer-Based Gra	Licomputer-Based data Computer-Based draphical Lipplagis for Emanengin Mercla Atamaticon and Improving Heasoning in Novice Learning of Probability.	Uanielle E. Kaplan	Female	Assistant Professo	2 Loctoral Student	- 0	88	N Number N	Columbia University	27,606 Medium
ė ş	Exploring the Fotential	texploing the notative exploring the notaxing to network would be under the provided of the notation of the network of the net	INIAR J.W. Lee Incohor C. Oliveratele	Male	A minimum Professor	2 Leoturer		7 3	Duration O	Princetto - Chinese	
ģ₽	Tripe Internation	ri reterimiet sou i reterimiet sour i reterieu masurus rou stratoung instruction. Microsofte beze sotos Microsofte Datasers in Delas Diserrativas de la facto de Constitue Decement.	VOILATELL CUVEISTELL	Male	Assistant Truesso					Dimensing or Criticago Dimension University	10000 01141
2 gi	20 minuter Mediated	v stataturg interaction i acterita in cuinte transcossiona ana induces on cognitive i resente. Promotine Madriadod. Communicatione I acterita Studi and Nicustician Ohina Educationa	William J. Gibbe	Mala	Associate Professo	2 Professor		3 8	Mived V	Duquestre ontwersity	1000 Small
2 22	you and Perform 1	2. Effortune and Perform Effortune Communications and Development High accounting of the Landon Accounting of the 2. Effortune and Perform Effortune for the sector activity of the se	Katherine A. Austin	Female	Administrator	2 Administrator		0	Quantitative N	Texas Tech University	47000 Large
2 22	2PBEDICTORS OF E)	PERIOTORS OF EXAMPLE FORMANCE IN VER AND PERIODIRECTOR RESEARCH	Sara A Brallier	Female	Assistant Professo	2 Consultant	0	0	Quantitative Y	Coastal Carolina University	9 000 Small
: ∞	orting Self-Organ	2Supporting Self-Orgal Supporting Self-Organized Learning with Personal WebPublishing Technologies and Practices	Priya Sharma	Female	Assistant Professo	2 Reseacher	0	0 22		Pennsulvania State University	95000 Large
¦≌	18-2The Clipper Project	The Clipper Project: Lessons Learned Teaching an Online Economics Course	M.J. Bishop	Female	Assistant Professo	2 Other	-	0		Lehigh University	8,000 Small
2007 19-1Designir	1.00	IDesigning. Developing Designing. Developing, and Implementing an Interactive Learning System	John J. Hirschbuhl	Male	Professor	-	0	0 16	Nixed N	University of Akron	30000 Medium
2007 19-1Digital S	Digital Storytelling	Digital Storutelling in Higher Education	Hilary McLellan	Female	Other	-	0	0 15	Qualitative N	McLellan/Vyatt Digital	0 Other
≌	IFrom Multimedia to	Pachyderm: From Multimedia to Visual Stories	Peter S. Samis	Male	Consultant	2 Administrator	-	0	: Qualitative Y	SFMOMA	0 Other
¢≏	rsive Learning Tu.	Ilmmersive Learning T- immersive Learning Technologies: Realism and Online Authentic Learning	Jan Herrington	Female	Associate Professo	2 Professor	0	0 20	I Qualitative Y	University of Wollongong	I 26000 Medium
¢.	19-1Learning Objects	Learning Objects, Learning Design, and Adoption Through Succession	Martin Weller	Male	Professor	-		0	Qualitative N	Open University	152,000 Mega
¢2∣:	onal Broadcastir	Personal Broadcastir Personal Broadcasting: Applications in Higher Education	Patricia D. Wolf	Female	Associate Professo		0	0		University of Maryland	38000 Medium
¢ s	loping Instructio	2Developing instructio Developing instructional Technology Products Using Effective Project Management Practices	Stephanie Allen	Female	Administrator	2 Professor	•	0 0		Brigham Young University	34,000 Medium
2007 19-2LJevelop	in Decomposed 1	19-ZEE-WEIDERFORDER OF DRE EL-OPPENDER OF DRE ELEOCONIC SUBJECT PERSPECTVE INSTUMENTA. A POTODIO INFORMATIVE 0.05	Albert Lieter Hitzhaupt	Male	A minute Distance	2 Associate Protessor	7 0	9 8 7 9		University of south Fiorida Month Charles State University	48000 Large
2007 19-2F acuity 2007 19-2E loting	ng neconinent.	is-calcular recomments recommendations on web rocks implications for course relatingements operation (a) OBDation an Online of Bilacian as Online of a Traveau for an order of the course relatingement operations	Hollin Econ. Chilliano	Formale	Assistant Floresco	DOPDSIIIIIO 2		9 6	Qualitative N	Morut Calolina orace university Manos Orace Induscritu	Transform Model
2 🛱	ing an onnie of lean	cal avoing a nomine and it mounts an counter transpire focusae. 27th fieldinene of it early the fieldinenes of it earlier ("baracteristics on Fueldination of Auclience Resonance Technologie	Frinal MacGeorge	Female	Associate Professo	3 Other	, <del>-</del>	3 6		wayre otate ouroer any Purdue Universitu	4000 Large
	tions and Reaso	20-Decisions and Reason Beasons: Examining Preservice Teacher Decision-Making through Video Self-Analisis	Peter J. Bich	Male	Associate Professo	2 Administrator	. 0	8	Gualitative Y	Bridham Yound University	34.000 Medium
2008 20-Ilnteracti	octional and Stru	20-Interactional and Stru Interactional and Structural Characteristics of Communication and Social Interactions during Computer-Mediated Communication	William J. Gibbs	Male	Associate Professo	2 Professor	0	0 31	Mixed Y	Duquesne University	11000 Small
2008 20-1Laptop1	op Computers in .	20-IL aptop Computers in Laptop Computers in Teacher Preparation: Lessons Learned from the University of South Florida Implementation	Ann E. BarTon	Female	Professor	3 Administrator	4	2 23	: Mixed Y	University of South Florida	48000 Large
2008 20-1The Infl	nfluence of Soci	20-1The Influence of Soci The Influence of Social Presence and Teaching Presence on the Quality of Online Critical Inquiry	Arthur Bangert	Male	Assistant Professo	-	0	0 28		Montana State University	15000 Small
2008 20-2Educat	bate at Penn Stal	20-2Educate at Penn Stal Educate at Penn State: preparing beginning teachers with powerful digital tools	Orrin T. Murray	Male	Assistant Professo	2 Associate Professor	-	0	Qualitative N	Pennsylvania State University	95,000 Large
2008 20-2Enhano	ancing mobile ac	20-2Enhanoing mobile ac Enhanoing mobile access to information with the short message service	Jeff Brown	Male	Professor	2 Administrator	- (		Qualitative Y	UNCV	14000 Small
2008 20-2F acilita 2009 20 2Machile	Intating guided pa	20-24 entitating guided par Factoria for through mobile technologies: designing creative learning environments hor set and others to 00 Advisor is to 10 Advisor is to sets odno sizes current into and environ and environments hor set and others	Michael A. Evans Erick Ducut	Male	Other	2 Assistant Protessor		* *	Curditative Y	University of Illinois Mexico all therein of Micatolico	42000 Large
2008 20-2Mobile math	lie math	motorie envoes in transmitter and stitutions and statution. Motifie mark mark administrics and stitutions among in mature	Taraca Franklin	Female	Associate Professo	2 Doctoral Student		2	Gualitative N	Dhio University	36000 Medium
2008 20-2Mobile	ologu	Mobile technology: the foundation for an engaged and secure caming	Edward Chapel	Male	Consultant		. 0	0	Qualitative N	Montclair State University	19.000 Small
2008 20-2Realizir	izing the promise I	20-2Pealizing the promise Realizing the promises of mobile learning	Ellen D. Vagner	Female	Researcher		0	0	Qualitative N	Sonoma Solutions Group	0 Other
2008 20-2Semi-fc	i-formal learning .	20-25emi-formal learning Semi-formal learning communities for professional development in mobile learning	Agnes Kukulska-Hulme	Female	Professor	2 Leoturer	0	0	Cualitative N	Open University	I 152,000 Mega
2008 20-2Ubiquite	uitous technolog.	20-2Ubiquitous technolog. Ubiquitous technology for language learning: the U-Japan movement in higher education	Ke Zhang	Female	Assistant Professo	-	0	0	Qualitative N	Wayne State University	33000 Medium
2009 21-1Design f	In factors for edt	21-IDesign factors for edit Design factors for educationally effective animations and simulations	Jan L. Plass	Female	Associate Professo	2 Associate Professor		5	Qualitative Y	New York University	44,000 Large
2009 21 1Delo e61	ictional technolo	2: Instructional feetimolo instructional feetimology must constructive to productivity 31 to La Accession B. Deda Accessional accession and the structure construction advection	Michael Molenda	Male	Uther	0 Doctored Students		e :	Uualitative N	Indiana University	TU,UUU Mega
2009 21-IThe Ibi	or manufactorian c	z intro de mateciana entre en mateciana en mateciana de mara en anterior en marie e auceano. 1411 de la mateciana entre de mateciana esta consecularia de serva esta entre en consecuente esta esta esta est	Don. Comport	Mislo	Automatication Profession	2 Other		- c	Customer N	Electeds defended linearcitu	2000 Madium
2009 21-1Translat	lating research in	zerri no merangi pero interesta prenova o revencional creative unaccursar y outrare precive 2011: Translation research if Translation research into new instructional rectingion thicker education: the active intractient process	Bichard E. Clark	Male	Professor	-	. 0	2	Qualitative N	University of Southern California	37000 Medium
2009 21-2An explo	ploratory analys .	21-2An exploratory analys. An exploratory analysis of communication in peer-directed educational discourse	William J. Gibbs	Male	Associate Professo	-	0	0	: Mixed N	Duquesne University	11000 Small
2009 21-2Scaffold	olded video self .	21:2Soaffolded video self. Soaffolded video self-analysis: disorepanoies between preservice teachers" perceived and actual instructional decisions	Peter Rich	Male	Assistant Professo	2 Professor	0	0 18	Cualitative Y	Brigham Young University	34,000 Medium
2009 21-2Techno	nologys effect o	21:2Technologys effect o Technology's effect on achievement in higher education: a Stage I meta-analysis of classroom applications	Richard F. Schmid	Male	Professor	3 Professor		0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mixed	Concordia University	1 46,000 Large
2009 21-21 hink, heel, act	c, heel, act	Think, reel, act: motivational and emotional influences on military students' online accentic success	Anthony H. Artino	Male	Assistant Protesso			0 0	Quantitative N	Unitormed Services University	and Small
2003 21-3Cognius 2009 21-3Evamini	ining student de l	e testognices presentes e cognices presente ano unine traine rigigamento a cuaste analysis or ne communing or inquiginamente. 21. Secondinos entantes de commense desiciones to adore Mark 2.0 testodoriose festos analysis al base.	Feter offee Biokard Hartehorne	Male	Administrator Desistant Professo	2 Resistant Floreson 2 Doctoral Shidare		2 4		University of Month Carolina	10000 Small
2009 21-3Factors	ars influencing st	ersternum my storen versionen versionen versionen versionen versionen versionen versionen erste 1. Storens influencina is Factors influencing studient acceptione and use of academic portials	Adrien Presleu	Male	Associate Professo	2 Other		9	Guantitative N	Truman State University	6000 Small
2009 21-3Scaffold	olding preservic	21-3Scaffolding preservic. Scaffolding preservice teachers" web@uest design: a qualitative study	Feng Wang	Male	Administrator	2 Professor	0	0	Qualitative N	Mount Saint Mary College	2,700 Small
	ntent analysis of .	22-1A content analysis of A content analysis of CESNET-L e-mail messages: directions for information delivery in higher education	Ed Neukrug	Male	Professor	3 Doctoral Student	4	5		Old Dominion University	I 25000 Medium
2010 22-Ilnoorpo	porating collabo	22-lihoorporating collado incorporating colladorative technologies into university curricula: lessons learned	C. Steven Hunt	Male	Professor	2 Associate Professor		# 9 0 7	Qualitative Y	Morehead State University	10,000 Small
	virtual campus of	22-11 ne virtual campts of the virtual campts of the future strumating and simulating owle actions in a virtual world	Iviarina Ders	remale	Associate Proresso	2 LOCTORAL STUDENT		3 :	N INIXE	Lurts University	Inuu omal

e	v	2010 ZZ-ZExpressions of	22-228hiessions or given Expressions or given within in tore-pigging surrigatoris; comparisons across roles	- 100 Million -		000000			Successio applin a	
e	~1	2010 22-2The role of invo	22-2The role of involvem. The role of involvement in learning management system success	Jane E. Klobas	Female	Other	2 Associate Professor 1	0 21 Quantitative	Y University of Western Australia	N 20000 Medium
e	2	2010 22-2Using online dis	cussi Using online discussion boards with large and small groups to enhance learning of assistive technology	John V. McCarthy	Male	Associate Professo	2 Other 2	0 19 Mixed		Y 36000 Medium
e	e	2010 22-3Curriculum, inte	22-3Curriculum, intellectu Curriculum, intellectual property rights and open educational resources in British universities—and beyond	David Hawkridge	Male	Professor	3 Consultant 2	0 15 Qualitative		N 16000 Small
e	e	2010 22-3Higher education for	on for Higher education for our time	Dana D. Burnett	Male	Administrator	2 Other 1	1 7 Qualitative	N Old Dominion University	N 25000 Medium
e	e	010 22-3Online higher educati	Jucati Online hidher education commodity	Paule Chau	Female	Doctoral Student	1	1 15 Qualitative		Y 22000 Me
e	e	2010 22-3Trojan horse fo		Lawrence Baines	Male	Professor	2 Professor 1	0 9 Qualitative		Y 31000 Medium
4	-		Academic Staff Workloads and Job Satisfaction: Expectations and values in academe	Don Houston	Male	Lecturer	2 Professor 2	0 14 Mixed	N Massey University	N 36,000 Medium
4	-	06 28-1-19301924	Tensions in Facilitating Higher Education-Industry Research Partnerships in High Technology Fields in South Africa	Glenda Kruss	Female	Researcher	1	0 14 Qualitative	Counc	N 0 Other
4	-	06 28-1-19301927	Institutional Commitments, Individual Compromises: Identity-related responses to compromise in an Australian university	Deborah Churchman	Female	Lecturer	1		N University of South Australia	N 38000 Medium
4	-	06 28-1-19301928	Factors Associated with Research Management in Australian Commerce and Business Faculties	Rob MacGregor	Male	Associate Professo	2 Professor 0	0 12 Quantitative	N University of Wollongong	N 26000 Medium
•		06 28-1-19301929	Policy, Preparation, and Prevention: Proactive minimization of student plagiarism	Marcia Devlin	Female	Associate Professo		0 14 Qualitative	N University of Melbourne	N 37000 Medium
4 •	9007 C 97	06 28-1-13301330	Legers of Loudin tegritimate, real and have qualications in a global market	Lieorge M. Brown	Male	Doctoral Student		0 to the contractive	N University of Adelaide	N 23000 M-44
-	10	0.00	de liestington desenteres in the coupling and other stig An institutional Reserves to Character Studiest Evensing	Barnard I onoden	Mala	Professor			M Linemool Hone University	M 20000 Predict
	10	06 28-2-22018390	An interconductor responses to characterize successions and one impose of the revenuent makes Making Stope for the characterized Besearch in the New Kuntomment of Australian Hindre Autorations	Duncan Beid	Male	Administrator		0 11 Gualitative		N 25000 Medium
	0		Franking approximation and the second more and the reformance of the second more second more second more second from the second more	Abbas Valadkhani	Male	Professor	2 Professor 0	0 22 Guantitative		
4	0	28-2	Who do they think they are? The changing identities of professional administrators and managers in UK higher education	Celia Whitchurch	Female	Lecturer	1	0 13 Qualitative	N King's College London	
4	2	06 28-2-22018394	Is there any Clear Idea of a University?	Francine Rochford	Female	Lecturer	1	0 12 Qualitative	N La Trobe University	N 33,000 Medium
4	28 2 2006	06 28-2-22018395	HECS and HECS-HELP: Equity issues	Elisa Rose Birch	Female	Assistant Professo	2 Professor 0	0 23 Quantitative	N University of Western Australia	N 20000 Medium
4	e	06 28-3-22908954	Changing the system of student support in Norway: Were policy goals met?	Vibeke Opheim	Female	Professor	-	0 11 Mixed	N NIFUSTEP	N 0 Other
4	e	28-3	Tensions between evaluations and communication practices	Grit Laudel	Female	Researcher	2 Reseacher 0		Y Australian National University	N 18000 Small
4	m •		Australian university technology transfer managers: Backgrounds, work roles, specialist skills and perceptions	Grant Harman	Male -	Professor	2 Administrator 0	0 18 Guantitative	N University of New England	N 19000 Small
+ •	"	8	A knowledge-based economy landscape: implications for tertiary education and research training in Australia	Heather Lavis	remale	Associate Protesso	2 Protessor		N Deakin University	N 40000 Large
• •		09690677-5-97 90	Laoverhance models of university systems—covers quasi-markets? I hadroces and perspectives: A European comparison	Church Downling	Male	Hesearoner	2 Protessor	0 18 Quantitative	V Politechico di Milano	N 30000 Madium
• •	2000 2 2000	00 20-3-22300301	The hattorial turning or doctorial trainings from the English experience	Stuart Fowell	Male Marts	Protessor		0 13 Quantiative	T University or methodosnite M Constraints	N 24000 0-01
•	° -	00 20-3-2200304A		Collin Filibeam Demole Mi Maronovi	Formale	Administration	0 Desterant		N Claimeld University	V 440000 Mage
• •			Tatuat responses in a comparative presenter in reconcisional and pointer an activities. Destructions to see districtions as as instruments of communities in Castron subjects activities and	Dominio Orr	Malo	Dorostohor			N otace onitizers of our new LOIN	N Discussion
• •			e entremente outer outerniste de annienten en competenten montennen mynter outeronen. Periodiation struktusstilt and dermee maarhin authorithe Chandron of Manuard	Gauin Mondie	Male	Besearcher	1	0 15 Qualitative	N Griffith Injuerchu	M 43.000 Large
*	-		Australian universities and international standards: Australian compleance with the 1997 UNESCO	James S. Page	Male	Doctoral Student	-	1 7 Qualitative	N Southern Cross University	N 19000 Small
4	-		Excellent measures precede measures of excellence	Hamish Coates	Male	Associate Professo	-	0 8 Qualitative	N Australian Council for Educational	N 0 Other
4	-	07 29-1-24325021		Nicholas Buys	Male	Professor	2 Reseacher 1	0 14 Qualitative	N Griffith University	N 43,000 Large
4	-		Which university? A study of the influence of cost and information factors on Scottish undergraduate choice	Senga Briggs	Female	Lecturer	2 Doctoral Student 0	0 16 Quantitative	N Robert Gordon University	N 16,407 Small
4	-		The shaping of the departmental culture: Measuring the relative influences of the institution and discipline	Jenny J. Lee	Female	Associate Professo	-	0 15 Quantitative	N University of Arizona	Y 40000 Large
4	~	07 29-2-25359689	The Science Shortfall: An analysis of the shortage of suitably qualified science teachers in Australian schools and the policy implificert.Lee Harris	di Kerri-Lee Harris	Female	Other	2 Lecturer 1		N University of Melbourne	N 37000 Medium
+ •	1002 2 62	0.0 00 0 000000000000000000000000000000	Posigiadade Educatoral Appliators and Pologimum Access study or university students in vestern Unita	Preter S. LI	Male	Protessor	2 Associate Protessor	0 Ib Quantitative	Y University of baskatonewan	U 21000 Magin
• •	v	07 20 2 PEPEDEDI	Giopai unvestigi rankings impleations in general and ror Australia	a IV	Male	Protessor		0 IZ QUARTER	N University or interbourne	V 37000 Lass
	40		Experimentation of the second se	b Renieur Olureiu	Female	Administration	2 Professor	0 13 Qualitative	N University or minots N Inhinersity of Technology Sudney	N 2000 Large M 2000 Media
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1	29 2 2007	2.6-66	remaining memory of the fragment of the Australian Higher Education Sector A studied and memory and and a secto Management of Workblass Datane in the Australian Higher Education Sector A studied and memory and and a sector Me	in Stenhen Weller	Male	Professor	2 Administrator		N Victoria Ilniversitu	N 29000 Medium
4	e	07 29-3-26945690	Defining and Rewarding Academic Critenship: The implications for university promotions policy	Bruce Macfarlane	Male	Professor	-	0 13 Qualitative	N Thames Valley University	N 48000 Large
4	e	29-3	International University Banking Sustems and the Idea of University Excellence	Paul Taylor	Male	Besearcher	2 Consultant 0		Y Macquarie Universitu	N 38000 Medium
4	29 3 2007	07 29-3-26945694	Graduate Assistants: Students or staff, policy or practice? The Current Legal Employment Status of Graduate Assistants	Bethany H. Flora	Female	Administrator	1	0 8 Qualitative	N Virginia Tech University	Y 31000 Medium
4	e		The Managerial Tutor: A producer of knowledge in a global arena	Roland Fletcher	Male	Lecturer	1	0 11 Qualitative	N University of Glamorgan	N 22000 Medium
4	e		Developing a Supportive Environment for Teaching and Learning: A case study in a pre-1992 UK university	Carole Roberts	Female	Professor	2 Professor 2	0 14 Qualitative	N University of Salford	N 20000 Medium
4	° '			Darlene Sebal	Female	Doctoral Student	2 Professor 3	2 13 Qualitative	Y University of Newcastle	N 31000 Medium
•			Lecture absenteetsm among students in higher educations a valuable route to understanding student motivation	Sarah Moore	Female	Professor	2 Reseacher 2		N University of Limerick	N 17000 Small
• •		00 30-1-26369400	what happens when suppliags perind demand? Lusauvariaged students and the ever increasing competition for university place		[Viale	Assistant Defease	D Direction of C	0 12 Uulantitative	V Nionash University	N DEUUU Large
• •	0007 1 00		ouress and restriction dimensional statements on response on some some some some some some some some	Angenki Lacanuou Andere Onempo	Adda Adda	Assistant Floreso		0 to quality of 0	<ol> <li>Monock University or Mousia</li> </ol>	M REDUCTION
+ -	30 1 2008		l emperang unevenes intervents retectors as acego processoria gants in idade no an autorissori or ranues. Pradicione of finalia doctorsi en data convolutione future di attactorse de utilia of a compario anco solo	Allurys Crisman John Boduali	Male	Professor	2 Accoriate Professor 1		N Mooustia University	N 20000 Ldige
•			Freedords or an integrational as sources to only records by gyrer a accentance, are aunity or a pragmatic approach Leadership and strategic choices: formale professors in furtherials and Turkeau	Datem Data anti	Female	Accoriate Professo	2 Researcher		V Ank are University	M 45000 M
1			restants and stategies into to stategies processors in course and an entrop The contrested fundirish of a introestime direction and stategies and the stategies and the stategies of the stategies and the	Francine Bookford	Female	Lecturer	1 162640161	0 13 Gualitative	N La Trobe Iniversity	M 33.000 Medium
	-		Provide a substance of a manufacture of a substance of the sending countries perspective Policy portions for managing international student migration: the sending countries perspective	Cate Gribble	Female	Researcher			N BMIT University	N 50000 Large
	30 2 2008		Business plan competitions in tertitary institutions: encouraing enternance of the province of	Rostin Russell	Female	Professor	2 Professor		Y BMIT University	N 50000 Large
4	0		Internationalizing the curriculum: the implementation experience in a Faculty of Business and Economics	Glenda Crosling	Female	Associate Professo	2 Professor 0	0 16 Qualitative	N Monash University	M 56000 Large
4	30 2 200	08 30-2-31808268	What do we know about the chancellors of Australian universities?	Bernard O*Meara	Male	Doctoral Student	2 Lecturer 0		Y University of Ballarat	N 26000 Me
4	30 2 200	08 30-2-31808269	Relationships and reciprocality in student and academic services	Kate Small	Female	Administrator	-	0 12 Qualitative	N University of Sydney	N 50000 Large
4	30 2 201	08 30-2-31808270	Connecting with industry: bridging the divide	Judith Berman	Female -	Associate Professo		0 11 Qualitative	N University of Western Australia	N 20000 Medium
+	30 2 200	08 30-2-31808271	Proactive encouragement of interdisciplinary research teams in a business school environment: strategy and results	Susan M. Adams	Female	Associate Profess(	3 Professor 0	0 13 Qualitative	Y Bentley College	Y 6000 Small
* •	30 2 200	08 30-2-31808272	Changes in higher education and valuing the job: the views of accounting academics in Australia	Kim Watty Minterel Minteres	Female	Associate Professo	2 Professor 2		Y University of Melbourne	N 37000 Medium
4 4	30 2 200	08 30-3-33190109 08 30-3-33190109	Managing the research function of the university: pressures and dilemmas Globalication and biobar admostion funding notice ekitist in Kanna	Michael Mintrom Gerald Mandende-Drime	Female	Associate Professo		0 15 Qualitative 0 16 Qualitative	N University of Auckland N University of the Mextern Care	N 40000 Large M 16000 Cmall
	30 3 2008		decomparation and ingree recoverion remains points in verya A new technique for mitigating risk on US college campuses	Stephanie Hudhes		Associate Professo	2 Professor		N Northern Kentucky University	Y 16000 Small
. 4	0			a sufficient summing and			E I Terreter		A literation from the second second	
			Academic productivity as perceived by Ivialaysian academics	Aminuddin Hassan	Male	Lecturer	2 Professor 0	0 15 Quantitative	Y University Putra	N 25000 Medium

3 2008 30-3-33190117	Service provision to students: where the down best fits	Lucu Schulz					U I GUADUCATIVE T		
3 2008 30-3-33190118	Resource allocation models and accountability: a Jamaican case study	Kofi K. Nkrumah-Young	Male	Associate Professo	2 Professor	0	0 16 Qualitative Y	University of Technology Sudney N	30000
	Who's Dean todar? Aoting and interim management as paradoxes of the contemporary university	MoWilliam, Erica	Female	Associate Professo	2 Professor	-	1 11 Qualitative N	Queensland University of Technolc N	40000
4 2008 30-4-34870636	An assessment of agency theory as a framework for the government-university relationship	Jussi Kivisto	Male	Assistant Professo	-	0	0 12 Gualitative N	University of Tampere N	16000
4 2008 30-4-34870637	"Sleeping with the energy": how far are you prepared to go to make a difference? A look at the divide between academic and allied s		Female	Administrator	-	0	Quantitative	Manukau Institute of Technology N	25000
4 2008 30-4-34870640	The effect of student loan schemes on students returning to study	Sarah Tumen	Female	Administrator	2 Leoturer	0	0 14 Quantitative Y	Ministry of Education, Government N	
4 2008 30-4-34870641		Richard Herdlein	Male	Associate Professo	2 Associate Professor	•		State University of New York Y	440000 Mega
4 2008 30-4-348/0642	Beyond administration and management: reconstructing the identities of professional staff in UK higher education	Cella Whitchurch	Female 1	A return Defense			0 12 Qualitative N	University of London N	136000 Mega
	District of the second state of t	Audrey L. Mayer Minorat Kilou	Formale	Parameter Floresco	2 Professor		0 12 Quantitative N	Oniversity of metsinki N Australias Matics al Holicarchia M	10000
	An analistic provide accordance model to the protection of the protection of the protection of the major sector of the protection of the	Christiana D. Onhoru	Female	Professor			0 6 Guantitative N	Chafemi Avolovo Iniversitu	2000
1 2009 31-1-36677872	The Journal of Higher Education Policy and Management an output	lan B. Dobson	Male	Administrator		0	0 13 Quantitative N	Monash University N	2800
1 2009 31-1-36677875	Institutional construction of disabled students	Steve Prowse	Male	Lecturer	-	0	0 8 Qualitative N	University of Volverhampton N	24000 Medium
1 2009 31-1-36677876	Advancing the relationship between business school ranking and student learning	Matt Elbeck	Male	Professor	-	0	0 8 Qualitative N	Troy University Y	30000
	The world-class league tables and the sustaining of international reputations in higher education	Ted Tapper	Male	Professor	2 Reseacher	-	0 12 Qualitative N	University of London N	136000 Mega
1 2009 31-1-36677879	Understanding relationships between academic staff and administrators: an organisational culture perspective	Hui-Min Kuo	Female	Leoturer	-	0	0 12 Qualitative N	Rutgers University Y	570(
1 2009 31-1-36677880	Skipping economics classes: a case study from Hong Kong	Terence Tai-Leung Chong	Male	Other	2 Professor	0	0 6 Quantitative N	Chinese University of Hong Kong N	16000 Small
1 2009 31-1-36677881	Missions statements in Wales: the impact of markets and policy on congruence between institutions	Helen James	Female	Administrator	2 Professor	0	0 13 Qualitative Y	North East Wales Institute of Highe N	8000 Small
2 2009 31-2-37840507	Focusing on university student engagement at the institutional level	Marcia Devlin	Female	Professor	2 Administrator		0 12 Mised N	Deakin University N	40000
2 2009 31-2-3/840508 2 2009 21 2 2704051	A croser look at completion in higher education in New Zealand	Liavid J. Scott Liada Crainta	Male	Administrator			0 8 Lyuantitative N	New Zealand Ministry of Education N	U Uther
2 2003 31-2-37040513	Figure and rational equations for instanting policies on statering and star involventent in continuencial sex Intersting in each other reveal of state	Carroll Graham	Female	Portoral Student	2 Leculei		1 Miseu I Miseu I	University of the west of Southan M Industriation of Tackhology Sudnam M	00002
2 2009 31-2-37840513	investig in early other grants The contail hanafite of ordina chat rooms for university students, an evolutization study	A R Mitharak	Female	Laching country	2 Administrator		0 14 Gualitative N	Flinders Injuersitu	19000
2 2009 31-2-37840514	Enrotine educational fundration back to Great Entlance, comparison with the United States	Eve Proper	Female	Other	-	0	0 11 Gualitative N	Vanderbilt University Y	13000 Small
2 2009 31-2-37840515	Reflections on costing, pricing and income measurement at UK higher education institutions	Chike F. Oduoza	Male	Administrator	-	0	0 15 Mixed N	University of Wolverhampton N	24000 Medium
2 2009 31-2-37840516	Academic manager or managed academic? Academic identity schisms in higher education	Richard Winter	Male	Leoturer	-	0	0 11 Qualitative N	Australian National University N	180
3 2009 31-3-43050909			Male	Researcher		0	0 9 Qualitative N	University of Warwick N	19000
3 2009 31-3-43050910	Marketing the university, the subjective perceptions of Israeli academics of their role in attracting new students to their institution		Male	Associate Profess(		• •	0 fl Qualitative N	Tel-Aviv University N	23000 Medium
3 2009 31-3-43050913	Managing for the ideal research environment	Andrew U. Madden	Male	Hesearcher			0 12 Qualitative N	University of Sherheld N	260
3 2009 31-3-43050915 2 2009 31 2 42050915	Loses administrative location of an academic department arrect educational emphasis? The case of economics Truess and inspirio, studency according is a Main 2-bad unit according to the case of economics	Shane Sanders Main Cillotters	Male	Protessor	2 According Distances		0 3 Lyuantitative N	Nichoris State University N Victoris University of Mollington M	22000 Modium
3 2009 31-3-43050915	r ucus a na ucustas. sucreto per tegrona na enero casana university. Public/Antiuste corst-stratino in kinke education an in dente fonde a the German sustemustino a comparative studi	Christonh Gwoso	Female	Professor	2 Administrator		0 ti Mised	FILORING of the Federal Ministru	5
3 2009 31-3-43050917		J. Gallifa	Male	Professor	-	0	0 9 Quantitative N	Ramon Llull University N	18000 Small
4 2009 31-4-44436231	Gauging the attitudes of non-traditional students at a new campus: an Australian case study	Julie Ballantyne	Female	Administrator	2 Lecturer	-	0 13 Quantitative Y	University of Queensland N	41000 Large
4 2009 31-4-44436232	blunt instr		Male	Professor	2 Administrator	0	0 12 Quantitative N	Monash University N	2600
	The application of a Total Quality Management approach to support student recruitment in schools of music	Larry Weinstein	Male	Professor	-	0	0 11 Qualitative N	Wright State University Y	20000 Medium
4 2009 31-4-44436235	Feligious and spirituality diversity at a multi-campus suburban university, what type of need for chaptaincy?	Adam Possamai	Male	Administrator	2 Administrator		0 12 Mixed Y	Centre for the Study of Contempor N	0 Other
4 2009 31-4-444-352-37	Tesponsibility device a underling and the international region and an under reaction and according to the internation of the international procession of the international procesion of the in	Ginger Luxinne Zierat - Davise Lindesa	hemale Malo	Administrator			1 dialitative N	Automotical State University 1 Automotical National Helicerchie	10 Q
4 2009 31.4.44436238		Tim Pitman	Mala	Administrator	2 Associate Professor	, -	0 12 Qualitative N	Industrial of Mastern Australia M	2002
1 2010 32-1-49147672	Cui bono? The relevance and impact of quality assurance	Vin Massaro	Male	Consultant	-	0	0 10 Qualitative N	University of Melbourne N	37000 Medium
	Retribution, deterrence and reform: the dilemmas of plagiarism management in universities	Wendy Sutherland-Smith	Female	Leoturer	-	0	0 12 Qualitative N	Monash University N	56000 Large
	University involvement in social planning: perspectives of community institutions and universities	Amnon Boehm	Male	Associate Professo		0	0 13 Quantitative N	University of Haifa N	19000 Small
Ŕ		Brian Miller	Male	Administrator	- 1	• •	0 11 Qualitative N	University of Gloucestershire N	10000 Small
1 2010 32-1-43147690	Australiant university free actin commercialisations price periodiogi drankers precialists and solence and recrinology aca Stratagine for adjavitualisement actions and to avain and la annion projects approximate solence and recrinology aca	Larant Harman Deborah Southuall	Female	Protessor	2 Dictascor		0 13 Qualificative N	University or New England IN Outcoreland University of Technolo M	4000 Small
	or accesses of a susterillation of the outcomes of reading and realing properts by each marking work for actives and on the mers of its dust tables of the station and employees at the station	Peter H Landford	Male	Pothiner	1 1045200	• =	0 13 Guantitative N	Queensianu oninerany or reominio, n Macruaria Universitu	380
1 2010 32-1-49147682	Cultural differences, learning surface and transmissional duration	Trou Heffernan	Male	Associate Professo	2 Professor	0		University of Plymouth N	3000
201		David Poole	Male	Consultant	2 Other	0	0 10 Qualitative Y	Macquarie University N	38000 Medium
	_	Stuart Palmer	Male	Lecturer	2 Associate Professor	0	0 14 Quantitative Y		40000 Large
		Hamish Coates	Male	Researcher	2 Reseacher	0	0 10 Quantitative N	Australian Council for Educational N	0 Other
2 2010 2010V32N2Future		Daniel Edwards	Male	Researcher		• •		University of Idaho Y	13000 Small
2 2010 2010V32N2Improving	g improving learning and teaching transformation and uncertaint discipling a specific project. Their activity is the second strain and all discriber and accepting activity and accepting activity of the second	Units Sykes Drive Homminger	Male	Lecturer	2 Protessor		0 12 Qualifative Y	University of Wollongong N	26.000 Modium
		Bona Tamiko Halualani	Female	Administrator	2 Other	0	0 10 Mised N	Crianes ordinomentary San José State University	305
	_	MichaelLyons	Male	Other	2 Administrator	-	0 12 Mixed N	University of Western Sydney N	380
3 2010 2010V32N3all thing	All things being equal: observing Australian individual academic workloads	Angela Dobele	Female	Lecturer	2 Associate Professor	e	0 13 Quantitative Y	RMIT University N	500
	A cost-benefit analysis of an international dual degree programme	Nader Asgary	Male	Professor	2 Associate Professor	-	0 9 Mised N	Bentley University N	2000
		Carroll Graham	Female	Assistant Professo		0		University of Technology Sydney N	30000 Medium
3 2010 2010V32N3managing		Alison R. Owens	Female	Associate Profess(	2 Administrator		0 16 Mixed	CQUniversity N	26,000 Medium
2 2010 2010/02/Nomeasuring	ig Pressing Dustass students a review and summary or the major period of a student starts interview have device or compared on the starts account a review and summary or the major period of the starts interview of the start of the starts account of the starts account of the start of the	Allen Gibson Toroco Charalko	Formale	Acrist tot Distance	- Disformer		N N N N N N N N N N N N N N N N N N N	Seton Hall University T	1000 Small
3 2010 2010V32N3outsourcing	Taew originariges for worren seeking an adaderino dareer, trie rinnig process in monuguese nigner euro. Dutsourcina universitu degrees: implications for qualitu control	Julie Edwards	Female	Lecturer	2 Associate Professor	,	0 13 Qualitative N	Monash University Monash University	56000 Large
3 2010 2010V32N3pawns		Sue Saltmarsh	Female	Associate Professo	2 Doctoral Student	-	1 11 Qualitative Y	Australian Catholic University N	18000 Small
3 2010 2010V32N3supra		Mantz Yorke	Male	Professor		• •	0 13 Quantitative N	Lancaster University N	13,000 Small
4 2010 2010V32N4across	2010V32M4across Across the great divide: what do Australian academics think of university leadership? Advice from the CAP survey	Hamish Coates	Male	Associate Professo	2 Professor	-	0 9 Quantitative Y	Cambervell	20,001
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4 32	4 2010		Toby Paltridge		Loctoral Student	7 recinel			Succession increased		anno raide
4 32	4 2010	Higher education in the United Arab Emirates: an analysis of the outcomes of significant increases in supply and competition	Stephen Wilkins	Male	Doctoral Student	-	1	12 Qualitative N	University of Bath	N 14000	0 Small
4 32	4 2010	2010V32N4organisational Organisational responses to public sector reforms in higher education in Uganda: a case study of Makerere University	Ronald Bisaso	Male	Researcher	-	0	9 Qualitative N	University of Tampere	N 16000	0 Small
4 32	4 2010		Geoff Sharrock	Male	Administrator		0	13 Qualitative N	University of Melbourne	N 37000	0 Medium
4 32	Ω	Developing generic skills and attributes of international students: the (ii )relevance of the Australian university experience	Anne Campbell	Female	Associate Professo	-	0	11 Mixed N	University of Canberra	N 13000	0 Small
4 32	۵.		é 🕄 Andrys Onsman	Male	Associate Professo	-	0	9 Qualitative N	Monash University	N 56000	0 Large
4 32	5 2010	2010V32NSinfrastructural University infrastructural needs and decisions in moving towards online delivery programmes	Susan J. Hillman	Female	Professor	2 Associate Professor	1	8 Qualitative N	University of New England	N 19000	0 Small
4 32	5 2010	Institutional strategies for capturing socio-economic impact of academic research	Rosa Scoble	Female	Administrator	2 Professor	0	12 Qualitative N	Brunel University	z	15,446 Small
4 32	5 2010	Sustaining student numbers in the competitive marketplace	Judy Szekeres	Female	Administrator	-	0	11 Qualitative N	South Australian Institute of Busin-	z	0 Other
4 32	5 2010	2010V32N5undergraduate Undergraduate student intentions for postgraduate study	Denise Mary Jepsen	Female	Lecturer	2 Associate Professor	1	12 Quantitative N	Macquarie University	N 3800	38000 Medium
4 32	5 2010	s University presidential rhetoric and the 2008–2008 economic crisis	Elizabeth Vitullo	Female	Administrator	2 Assistant Professor	0	11 Qualitative N	West Virginia University	7 3000	30000 Medium
2 60	1 2006		Yvonne Turner	Female	Administrator	-	0	25 Qualitative N	University of Newcastle	3100	31000 Medium
5 60	1 2006		Katharine Boursicot	Female	Other	2 Professor	1	17 Qualitative Y	University of London	N 13600	36000 Mega
5 60	1 2006		Elizabeth Meerabeau	Female	Administrator	-	0	22 Quantitative N	University of Greenwich	N 25000	0 Medium
5 60	0 1 2006 V60N1University choice	<ul> <li>University Choice: What Influences the Decisions of Academically Successful Post-I6 Students?</li> </ul>	Joan M. Whitehead	Female	Lecturer	2 Reseacher	1	23 Quantitative N	University of Cambridge	N 19000	0 Small
5 60	1 2006	V60Mfworkbased learning Work-Based Learning: Effectiveness in Information Systems Training and Development	David Walters	Male	Administrator	2 Professor	0	17 Mixed Y	University of Central Lancashire	N 3500	35000 Medium
5 60	2 2006	Conflict in Higher Education and Its Resolution	Peter W. A.West	Male	Administrator	-	0	11 Qualitative N	University of Stratholyde	N 2600	26000 Medium
5 60	0	Equality in Higher Education in Spain and the UK: Mismatch between Phetoric and Policy?	Manuel Souto Otero	Male	Lecturer	2 Reseacher	0	20 Qualitative N	University of Oxford	N 2100	21000 Medium
5 60	0	Policy Drivers in UK Higher Education in Historical Perspective: "Inside Out", "Outside In" and the Contribution of Research	Michael Shattock	Male	Professor	-	0	11 Qualitative N	University of London	Z	36000 Mega
5 60	2 2006	The Evolution of Government Policy on Widening Participation	Paul Greenbank	Male	Lecturer	-	0	26 Qualitative N	Edge Hill College of Higher Educati	z	26,000 Medium
2 80	2 2006	Times, Measures and the Man: the Future of British Higher Education Treated Historically and Comparatively		Male	Professor		0	15 Qualitative N	Twente University	N 700	7000 Small
8	3 2006	V60030hanging research. Changing Research Perspectives on the Management of Higher Education: Can Research Permeate the Activities of Manager-		Female	Professor			26 Qualitative N	University of Bristol	1300	19000 Small
6 L	3 2006	stal Changing Understandings of Prublic' and "Private" in Higher Education: the United Kingdom Case	Malcolm Light	Male	Protessor		•	15 Lyualitative N	lanoaster university	N 13,00	13,000 Small
20	3 2006	Intervention in a Higher Education Market: a Lase study	Praul Temple	Viale	Lecturer			13 Qualifative N	University of London	z	U INIEGA
0 W	o o once veoluopalling	Fulling sourcede investigation for engineer bedoeshore the impact of Flarer innew orking on English University sourcents The De Zivershore of Simersteiner Biddes Educations	Hobin Humphrey	remale Mado	Accounts Distants			1/ Quandradive N	University of Newcastle upon Type Custo University of Tooksoloon	zz	AE 000 L seas
5 8	4 2006	The treat is ming on constantiant in University of Northean Ireland S consets to and Particination in Hinker Education in Northean Ireland	Bohar D Ochorna	Male	Professor			10 Qualitative II	Curver of Elleter	N 2800	28000 Large
5	4 2006	reverses to an environment agree current contract mentance. Description and the Bestructuring of Participation in Hindus Calmerication in Malas	Garath Read	Male	Professor	2 Lechiter		22 Quantitative N	Cardiff Injugrativ	N 203	2030 Medium
98	4 2006	Policie Participation Trajectoronias in Fondick Hisher Function and account of the	Gareth Parm	Male	Professor	1		21 Quantitative N	University of Sheffield	N 2600	26000 Medium
5 60	4 2006		Nick Adnett	Male	Administrator		0	16 Qualitative N	Institute for Education Policy Bese N		0 Other
5 60	4 2006		Philip J. 0'Connell	Male	Administrator	2 Consultant	1	21 Quantitative Y	Economic and Social Research In: N		0 Other
5 60	4		Jim Gallacher	Male	Professor	-	0	21 Quantitative N	Glasgow Caledonian University	N 18,00	18,000 Small
5	1 2007		oal Nick Adnett	Male	Administrator	2 Reseacher	1	14 Qualitative N	Staffordshire University	N 1600	16000 Small
6 C	1 2007	Extra-Curricular Activity and the Transition From Higher Education to Work: A Survey of Greduates in the United Kingdom	Guy Tchibozo	Male	Associate Profess(			20 Quantitative N	Louis Pasteur University	N 13,00	19,000 Small
5 G	1002	Fails Uniqueness; the Set-Perception of New Entrants to Higher Education in the UK and its implications for Access - a Pilot Str Andy horpe	ott. Andy I horpe	Sale Zale	Protessor	2 Lecturer		20 Quantitative N	University of Portsmouth	N 1	Z1000 Medium
0 U	1002	Vehivadressons Hard Lessons for theory Learner's Age and Experience in the traduce Labour Market.	Kate Purcell	remale Made	Administration	2 Protessor		26 INIIXed 7	University or warwick	N 1300	ISUUU SMAIL
5 KG	2 2007	rie Frugten Euroscianteriserta mergianis Organisational Contract and Controphysiophysican insurgements Organis 3. Ethninin he State Bask In: Promotion and Sustaining Internation III Philis Hicker Function	Michael N Bastedo	alate	Accordate Professo			17 Qualitative N	Open onversing University of Michinan	4200	42000 Large
5	2 2007		Patrick Clancu	Male	Professor	2 Assistant Professor	0	19 Quantitative Y	University College Dublin	N 1800	18000 Small
5 61	2 2007	VSIN2highereducationiniri Higher Education in India: Growth, Concerns and Change Agenda	Pawan Agarwal	Male	Other	-	0	11 Qualitative N	Indian Council for Research in Inter	z	0 Other
5 61	~	Implementation of Cost Sharing in the Ethiopian Higher Education Landscape: Critical Assessment and the Way Forward	Teshome Yizengaw	Male	Other	-	0	26 Mixed N	Hawasa University	N 22,00	22,000 Medium
5	2 2007		Nelly P. Stromquist	Female	Professor	3 Professor	•	22 Mixed Y	University of Southern California	~	37000 Medium
6 G 6 G	~ ~		Pedro N. Teixeira	Male	Associate Profess(	2 Professor	•	15 Quantitative N	University of Porto	N 3100	31000 Medium
0 U	2 2007	. A tranework for transitions supporting treatment to Learn' in Fighter Education Bio Dose Hiskos Education Maed a History said Disk?	Ursula wingate David Mateon	Male	Professor			12 Qualifative N	King's College London Institute of Education		8,000 Small
5	3 2007	an over 10% in Constant and the second second second second second values and Vonshularies or Elitism and Inequalities?	Louise Morleu	Female	Professor	2 Lecturer		21 Mixed	University of Sussex	N 1300	13000 Small
5 61	3 2007		Arthur Baxter	Male	Lecturer	2 Lecturer		18 Qualitative N	University of the Vest of England	2 Z	30000 Medium
5 61	3 2007		Li Bennich-Björkman	Female	Professor	1	0	28 Qualitative N	University of Uppsala	z	21000 Medium
5 61	3 2007	Measuring Progress: an Evaluative Study of Aimhigher SouthWest 2003–2008	Sue Hatt	Female	Lecturer	2 Leoturer	0	22 Mixed N	University of the West of England	z	30000 Medium
5	3 2007	Problem Solving Academic Workloads Management: A University Response	Shelley R. Paewai	Female	Doctoral Student	2 Professor	1 2	16 Qualitative Y	Massey University	z	0 Mediun
6	3 2007	The (Re)Location of Higher Education in England (Revisited)	Malcolm Tight	Male	Professor	-	0	16 Quantitative N	Lanoaster University	N 13,00	13,000 Small
5 0 0 1	4 2007		Donna Brown	Female	Lecturer	2 Professor		22 Guantitative N	University of London	N 13600	0 Mega
6 U	4 -	An Analysis or this tabletione sudden's Financia Awareness and Attitude to Lebt in a Fost-1932 UK University Crimose Dravidorin Nito Attito Attito Attito Attito Attitude to Lebt in a Fost-1932 UK University	Fru Marriott	Iviale Comolo	Decoration	0 Destance		22 Quandrarive IN	Latemorgan University Heinerstein of Colford	000c N	C, U00 Medium
5 G 6	4 2007		Mick Milton	Male	antirar	1		19 Mived N	University of service University of the West of England	2 2	20000 Medium
- 10 - 10	4 2007	eri Dore se resistenten obgete do ere dustrezzione vonterian une disordezze basonan manazza. Fichancian Parteine Transhina in Hidee Educatione a Distalione fer in testi in inizial Polificii and Prastice	Peter Kninht	alan	Professor	2 Professor	, -	19 Qualitative Y	One of Investory of the west of Linglan	2 2	0 Mena
5	4 2007	Entrepreneurial Academics: Developing Scientific Careers in Changing University Settings	Joanne Duberley	Female	Lecturer	2 Professor	0	19 Qualitative Y	University of Birmingham	N 2700	27000 Medium
5 61	4 2007		Jeroen Huisman	Male	Professor	2 Professor	1	15 Quantitative Y	University of Bath	N 1400	14000 Small
5	4 2007		Neil Garrod	Male	Professor	2 Professor	0	19 Mixed N	Thames Valley University	N 4800	\$8000 Large
6 C	4 2007		Miles G. Nicholls	Male .	Administrator		•	24 Mixed N	BMIT University	N 5000	50000 Large
20	2 16:2 2008 V62NI-Zhorizontal	Holizonal and versal Linerentiation within Higher Education – Liender and Llass Perspectives	Laroline Berggren	remale Marie	Preference			20 Guandiaque N	Laoteborg University	N 20,00	(0,000 L 1000
0 K	18.2 2008	Modeling University dovernance Dis Provides Discontance Supervisional Mathematican de la Foldman Provide Site Anna y Entre Dasconshill Bu Dis Provides Provides Supervisional Mathematican de la Foldman Stronger Site and Site and Site and Site and Site		Male	Administrator	2 Professor		21 Qualitative N	University of New South wates Penter for Besearch in Hisher Educ	z z	JU Large
581	2008	OIL FLOCESS, FLOGRESS, address and recrossroogy of the oncounty of the Dorogital FLOCESS as it oppears to 1 wor reasonably On Structuring Subjective Judgements: originality, Significance and Ridour in RAE2008	Bon Johnston	Male	Professor	1	, 0	28 Qualitative N	University of Bristol	N 1900	0 Small
5 62	2008	Quality Assurance and Quality Enhancement in Higher Education: Contested Territories?	Ourania Filippakou	Female	Researcher	2 Professor	0	17 Qualitative Y	Institute of Education	N 8,00	8,000 Small
5 62	16:2 2008	Towards a 'Post-Public Era'? Shifting Frames in German and Australian Higher Education Policy	David Pick	Male	Associate Professo	-	0	17 Qualitative N	Curtin University of Technology	N 45,000	0 Large
5 62	16/2 2008	V62M1-2universitypatentif University Patenting in Wales, Scotland and Northern Ireland: a Comparative Analysis	Andrew Beale	Male	Administrator	2 Professor	-	19 Quantitative N	Cusheas I Ininarchu	N 1000	0 Small
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	1 200 VL3L3N-charter	e. At Contrepertion Holes Education Policy Matri	Michael Shartook	Intade -	Projection	1	0	20 01403	Quilineos N	Intitute of Education	10	0.000 Small
3	2008 VS24CReemand		Pod@um	Man	Administration	2 Protessor	0 0	24 04	ritative N	Clamoraan Estimate School	4 N	4.000 Small
2 20	2006 VERIDINATION ACCOUNTS	in after 1969	Eva Berde	Ferrale	Associate Protessu	2. Assistant Protessor	0 0	10 Mil	22 Minut V	Convinct University of Buddeett	9 N	tittet Synall
	8. 2006 VE2THacademicsteration	thereafters	Dwed Smith	Male	Fickerson	2 Constitues	0	ID OF	10 Qualitative Y	University of Leeds	N 18	14000 Medium
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	a 2006 VEDMICANOAGESIMON	Most Escende Science or Nor Encode Locardor? Eschorboute Sector Societers Localer class Theory and Practice	Poten Maddewarm	Ferrale	Fishered	1	0 0	10.4	to Qualitation N	Mingston (Pacestry	N N	M.000 Medium
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2	2006 VS7Minuterori		Steve Woodfield	Main	Fayestoter	2 Consident	0. 0	10.01	13 Qualitation V	Pointston (Neversity	N N	34.000 Medium
1	· 2006 VEDMendorariogeneta	Teactors in Higher Education Leader (the Town of a Multi-Lead Model of Leader the Prantice	Pickard Enrichen	Mai	Learner	2 Photestor	0	10.01	th Qualitation N	University of Earth	8 19	K000 Small
13	1 2006 YE3Manetical	Are Dhen Mincelles Undersected at UK. Postgradaats 2447	Paul Vaheling	Main	Lecturer	1	0 0	10.10	26. Guartitatue N	University of York	N 16	K000 Smell
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13	2000 YERENEMENDORMAN	-	Inadiferat	Main	Other	The converse	0 0	11 12	IT Quantitation 74	Ecole Properticique	2 N	2000 Small
5 23	2 2006 VKX4Decarever	dents in Engla	Area West	Fernik	Prokesson	2 Adversedor	2 0	10 22	22 Quarteration V	Ethiostice Research Decision	2	9 Other
3	2 2006 VERLINCOMMENT	Discipliship of the set Prantice anongst UK University Presence Administrators	John Hockey	htute-	Peceadoren	2 Leaturer	1 0	10.0	Brane V	University of Gloudestreckies	04 N	6000 Small
12	1000 2000 1000 2000 2000 2000 2000 2000	Higher Echanister 1	Tong Srike	Mae	Administration -	2 Protensor	0	10 01	15 Qualitative Y	University of Countiempoon	10 2	25080 Medium
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1 10	2003 VERMINAMINAMINAMINA	en/iced	Marka Areca	Ferral	Autorain Protecto	2 Protestor	1 0	27 Must	M 14	Plateonico di Milano	8 2	15060 Medium
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# APPENDIX C

# **Curriculum Vitae**

# CURRICULUM VITAE SHERRI E. RITTER

Sherri E. Ritter 96 Coon Ave, Dunbar, WV 25064 (304) 610-3998 srsritter40@gmail.com

## **EDUCATION**

	Marshall UniversityProjected CompletioEd.D. in Leadership Studies ABDProjected CompletioDissertation: "Methodological Orientation of Research Articles Appearing inHigher Education Journals"	n 2012
	Marshall University M.S. in Adult Technical Education Interdisciplinary Studies	1997
	Marshall University Regents B.A. Cum Laude	1996
	Marshall Community & Technical College Associate of Applied Science with Honors Major: Computer Technology	1995
CERTIF	ICATION	
	WebCT Vista 3.0 Certified Administrator Mastery of Competencies for WebCT Vista 3.0 Administration, by WebCT	2005
	WebCT Certified Trainer Weaving, Teaching, and Technology, by WebCT	2001
EDUCA	TIONAL EXPERIENCE	

Kanawha Valley Community and Technical CollegeInstructional Technologist2010 - PresentAssist faculty with the development and use of Online Classes. Teach a variety of<br/>workshops on Web 2.0 tools, MS Office, and technology for the classroom.

#### Bridgemont Community and Technical College Instructional Technologist

2010 – 2011

1998 - 2010

Assist faculty with the development and use of Online Classes. This is a shared position with Kanawha Valley Community and Technical College.

## Marshall University

Instructional Technologist

Assisted faculty and staff with course development and use of CMS. Trouble shot Blackboard issues. Assisted with ETD,s and Portfolios. Developed Flash projects, CD's, and presentationed. Assist with Streaming media. Developed Best Practices and Student Tips Video. Assist faculty and students with software needs, BB, MSOffice, Wimba, Banner, Photoshop, etc. Support hosted BB institution of Southern CTC.

<i>Marshall University</i> <b>Adjunct Faculty</b> Taught online classes using WebCT and Blackboard CMS	2001 - 2009
Marshall Community & Technical College Computer Instructor Taught Windows, WordPerfect, and Microsoft Office Personal Computer, Intermediate Computers, Pine, Netscape, V Children's and Teens' College.	<b>1994 - 2000</b> Vindows 95 and
UNITED STATES MARINE CORP <b>3rd Marine Division</b> Computer Programmer	1979 - 1981

#### PUBLICATIONS

"Instructional Practices and Course Development Geocaching: A New Technology Tool for Teachers" The Reading Professor, Winter 2008

"e-Based Professional Development (e-PD) for Effective Teaching and Leadership" NCPEA CONNEXIONS, 2007

# PRESENTATIONS

**WV Reading Conference,** assist graduate faculty with presentation for web 2.0 tools, at the Greenbrier, West Virginia, 2011

Faculty Orientation to iLearn, for faculty at KVCTC in Institute, West Virginia, 2011

**Best Practices in Online Education,** for faculty at Bridgemont CTC in Montgomery, West Virginia, 2010

**Best Practices in Webpage Design,** for faculty at Bridgemont CTC in Montgomery, West Virginia, 2010

The Use of Rubrics in the Online Classroom, for faculty at Bridgemont CTC in Montgomery, West Virginia, 2010

WebCT Training, for faculty at KVCTC in Institute, West Virginia Fall 2010

**Best Practices in Online Education,** for faculty at Bridgemont CTC in Montgomery, West Virginia, Spring 2010

MS Office 2010, for faculty and staff at KVCTC in Institute West Virginia, Spring 2010

**Digital Story Telling,** for master level writing students at Marshall University Graduate College, 2009

**Wimba in the Classroom,** for master level students at Marshall University Graduate College, 2009

**Instructional Treasure Hunting with Geocaching**, for the SRCEA conference in Charleston, West Virginia, 2008

**Technology in the Classroom: Geocaching**, for the WV Higher Education Technology Conference program, Morganton, WV, 2008

**Creating a Culture for Successful Migration**, BbWorld '08, 2008 MSOffice 2007 Training, MUGC Staff Training, 2008

21st Century Nursing Education, Converting Traditional Courses to Online Using Sound Pedagogy Theory, WV Tech Conference, Charleston, WV, 2006

**Roane County Academy for Teachers** 2006 Transfer Learning Pedagogies from Traditional to Online Classes, WV Tech Conference, 2006

**Distance Education Doctoral Students in a Rural State of Mind**, The Hawaii International Conference on Education, Honolulu, Hawaii, 2006

**Teaching Graduate Education Courses Online**, The Hawaii International Conference on Education, Honolulu, Hawaii ,2005

**Reforming the Higher Education Curriculum In Ed.D. Programs**, Atlanta, Ga., 2005 Tips for a Successful Online Student, Vista Manual, 2005

The Utilization of Online Courses, for WVNet conference in Charleston, WV, 2004

Marshall's Online Program, Boston Conference of Online Delivery, Boston, MA 2002

Instructional Design: Coming Full Circle, WVNet 2002 Morgantown WV 2002

**The Essences of an Online Classroom**, Second Annual WebCT Asia Pacific, Adelaide, Australia April 2001

Administrator: Best Practices: 5 Steps to Success WVNet 2001 Morgantown WV 2001

Motivation for a Degree, The Step Program, Larry Artrip, Huntington, WV, 2000

**Maintaining a Personal Touch in an Electronic Classroom**, Almost Heaven I, South Charleston, WV, April 1999

**Making your Point with PowerPoint**, Marshall University Secretary Day, Huntington, WV, 1999

**Maintaining a Personal Touch in an Electronic Classroom**, Wheeling Jesuit University, Wheeling, WV,1999

# SPECIAL PROJECTS

### Learning Centered Technology, 2012

Maintain a blog addressing learning centered technology. Covered CMS's and Web 2.0 tools and any technology that deals with learning. http://learningcenteredtechnology.wordpress.com

Blackboard 9.1 Implementation, 2011

Responsible for the implementation of the new course manage system for KVCTC. As Blackboard 9 administrator maintain the system and troubleshoot issues. In addition responsible for faculty training in course development and design. Train students in the use of the new CMS.

## **Quality Matters Coordinator for KVCTC**, 2012

Work with WV State Quality Matters representative to assure online program meets all quality matters standards.

## WV Virtual Community and Technical College, 2010

Participate in the development of a virtual community and technical college for the state of WV.

#### CTCS Technical Master Plan, 2010

Participate in the technology planning for new KVCTC facilities. Work with KVCTC staff, Chancellor and consulting team to establish a goal of creating a common vision for the various technologies to be used throughout the new facilities.

#### Real Estate Broker, 2010

Work with Workforce Development, the WV Real Estate Broker, and ARELLO to develop and online program for real estate brokers.

## Medicaid Program, 2010

Work with BAHM to develop a national online Medicaid program.

#### Technical Consultant, 2006

Technical consultant for JD Jones on his book, The Essential Mentor-Mentee Program

## Effective Internet Searching, 2006

Hands on training of effective internet searching for Roane County Schools in WV

## Learning American Sign Language, 2005

Video production of American Sign Language at Charleston WV

## DHHR Training, July 7, 2005

A Vista hands on training for the Department of Human Resources of WV on Vista

#### Best Practices 2003

A video production involving the faculty of MUGC Faculty discussing Best practices in Distance Education

## Student Tips 2003

A video production involving the faculty of MUGC Faculty discussing Student Tips for Online Education

## Vista Implementation 2003

Involved in the planning and implementation of the new online course delivery system called Vista.

#### Flash 2002

Developed three separate Flash tutorials for a WebCT course.

#### Virtual U

Technical support for LS class using a software program called Virtual University. Virtual U simulates the role of President of a University.

# **WebCT CD** 2000

Created a CD for students to learn the basics of WebCT.South Charleston WV

## MUGC Traffic Cam 2001

Planned and assisted in the development of MUGC's Traffic Cam. The traffic cam broadcast a streaming video 24 hours a day of traffic flow on I-64. This original project has become the model for a statewide project.

**Kiosk** 1998 Managed and maintained the Marshall University kiosk system.

#### **Microsoft Integration** 1998

Helped integrate Microsoft Office into the MUGC Community, through instructional materials and several live class meetings.

## COURSES DEVELOPED OR TAUGHT

Faculty Orientation to iLearn, Kanawha Valley CTC, Developed and taught for faculty. 2011

Student Orientation to iLearn, Kanawha Valley CTC, Developed and taught for students. 2011

BST 299, Kanawha Valley CTC, Developed and taught Web 2.0 tools, 2010

CIEC 534, Graduate School of Education and Professional Development, 2004 - 2009

Cotaught LS-714, Graduate School of Education and Professional Development, 2005

Smoking Sensation, School of Nursing, developed fall 2000 via WebCT.

PhotoShop 6, Professional Development, developed and taught fall 2001

MSOffice 2000, Higher Education Board, developed and taught fall 2000

Microsoft Office Suite, West Virginia State Police, 1999-2000

PowerPoint 97, Informational Technology Instructional Symposium, developed and taught 1999

PowerPoint 97, Informational Technology Instructional Symposium, developed and taught 1997

MSOffice Suite, Byrd Center developed and taught fall 1997

- Basic Computers, MCTC Continuing Education, Court House Training, developed and taught 1997
- Introduction to the Internet, MCTC Continuing Education, International Brotherhood of Allied Trades and Painters, developed and taught 1997 - 1998
- Introduction to Computers, MCTC Continuing Education, International Brotherhood of Allied Trades and Painters, developed and taught 1997 - 1998
- Lotus, MCTC Continuing Education, International Brotherhood of Allied Trades and Painters, developed and taught 1997 - 1998

Windows 3.1, MCTC Continuing Education Walker Machinery,

Windows 3.1, MCTC Continuing Education St. Mary's Nursing

E-mail MCTC, MCTC Continuing Education Staff

Training MSOffice, MCTC Staff Training

# AWARDS

Marshall Faculty of the Game Award MCTC Outstanding Student Award	2008 2006
National Deans List	1992 - 1997
Lucille Fogus Scholarship	1995
President of Organization of Applied Science, Information, and Support	1992
1981 Good Conduct Metal, United States Marine Corp	1981

## COMMITTEES

Kanawha Valley Technology Committee Participate in the Technology Committee for KVCTC	2010
West Virginia Virtual Learning Network (WVVLN) Participate in the WVVLN for online courses for KVCTC.	2010
Southern Regional Electronic Committee (SREC) Participate in the SREC for online courses for KVCTC.	2010
WV Virtual Community and Technical College Charter member of the committee for development of a virtual community and technical college for the state of West Virginia.	2010 /
CTCS Technical Master Plan Participate in the technology planning for new KVCTC facilities.	2010
Higher Education Technology Conference Program Committee Helped plan and implement the program and speaker for WVNet confere	2008 nce
Vista Implementation Helped plan and implement Vista to the Marshall community.	2003
Vista Teaching & Learning Committee, Chair Lead the training team for the Vista implementation	2003
Electronic Thesis & Dissertation20Lead trainer for electronic submissions.20	001 - 2009
Exemplary Course Committee Reviewed course for international Exemplary Course project.	2001
Online Course Development Committee20Reviewed Electronic Course	001 - 2009

Instructional Technology Oversight Committee Review and planed activities for Instructional Technology at Marshall	1999
Almost Heaven I & II Planed and participate in MUGC Annual WebCT conference	2001 - 1002
CIT Committee Planed and participate in CIT activities	1998
Continuing Education Development Committee Planed Continuing Education activities	1998
<i>Combating Underage Drinking</i> Worked on the planning an evaluation team of a grant funded initiative to fight underage drinking. This project created several Public Service Announcements on the subject.	1998 - 2008

## **MEMBERSHIPS**

# Society for Information Technology & Teacher Education (AACE)

Participate in the AACE discussion concerning Information Technology and Teacher education

# International Forum of Educational Technology & Society

Participate in an international forum for educational technology.

## Marine Corp League

The Marine Corp League is involved in community projects to aid and assist former Marines.

# **Woman Marine Association**

The Woman Marine Association is involved in community projects at aid and assists current and former women marines and their families.