DISSERTATION


MASTER'S OF SOCIAL WORK STUDENTS' RESEARCH SELF-EFFICACY,

ATTITUDE, AND KNOWLEDGE ACROSS THE FOUNDATION YEAR


Submitted by

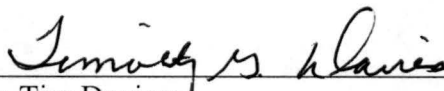Helen R. Holmquist-Johnson

School of Education


In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

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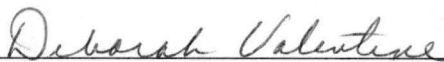Spring 2009

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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY HELEN R. HOLMQUIST-JOHNSON ENTITLED MASTER'S OF SOCIAL WORK STUDENTS' RESEARCH SELF-EFFICACY, ATTITUDE, AND KNOWLEDGE ACROSS THE FOUNDATION YEAR   BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.
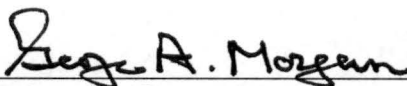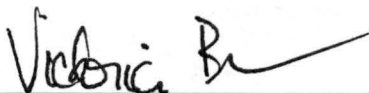
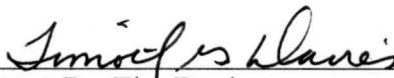Committee on Graduate work

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**ABSTRACT OF DISSERTATION**

MASTER'S OF SOCIAL WORK STUDENTS' RESEARCH SELF-EFFICACY,

ATTITUDE, AND KNOWLEDGE ACROSS THE FOUNDATION YEAR

This study examined foundation year MSW student outcomes with regard to the research curriculum. The researcher sought to understand students' attitudes toward research, research knowledge acquisition, and research self-efficacy. The Research Self-Efficacy (RSE) scale (Holden, Barker, Meenaghan, & Rosenberg, 1999) and a modified Kirk-Rosenblatt Research Inventory (K-RRI) (Kirk & Rosenblatt, 1981) were combined to create the survey instrument. Students enrolled at five schools of social work were recruited in the classroom to complete the survey. A pre-post design allowed students' responses at the beginning and end of the foundation year to be matched (*n*=75). Data collection for this study spanned the academic year of 2007-2008. Self-report responses were analyzed using both descriptive and inferential statistics. Findings suggest that students' attitudes are favorable toward research. Knowledge of research increased over the foundation year. Students who completed one semester of research coursework were compared with those completing two semesters of research coursework. The group with two semesters of research coursework gained statistically significantly more knowledge than the one semester group. Research self-efficacy increased 24 points, a statistically significant change, suggesting a wide range of student confidence and preparedness.

Recommendations for both social work practice and education communities are made based on the findings of this study. Changes to the field of evaluation research and technological advances in the last thirty years have been vast. Both faculty and students may benefit by attempting to set aside bias toward research. It is suggested that social work faculty seek to provide a positive learning environment surrounding the research curriculum. Incorporation of the research curriculum with other curriculum components continues to be of interest. The use of service-learning and the field practicum should continue to be explored as a means of integrating the practice and research curriculum (Williams, 2002). The social work practice community can influence the amount and type of research curriculum a social work programs provide. Finally, another research task force may be in order. There remains a need to determine the content of the research curriculum, how the curriculum is taught, and whether or not, research findings are used by social workers.

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# CHAPTER 1: INTRODUCTION

## Introduction

In preparing Master's of Social Work (MSW) students there is an acknowledged tension when it comes to research. Nearly twenty years after the Task Force on Social Work Research was appointed, much remains unknown about the research curriculum. The Task Force on Social Work Research was appointed in 1988 by the director of the National Institute of Mental Health (NIMH). The charge of the task force was to improve social work research. The report of the task force (Task Force on Social Work Research, 1991) provided a review of the state of research education, research resources, and research developments in social work at that time. In sum the report stated that there was a crisis in the development of research resources in social work. The task force found evidence that researchers in social work do not have the skills required to compete for large research grants and found deficiencies in the quality of research training and published research.

The Council on Social Work Education (CSWE) is the accrediting body for social work education at the baccalaureate and master's level (Council on Social Work Education [CSWE], 2008b). In order for social work programs to be accredited by CSWE, faculty must demonstrate responsiveness to the Educational Policy and Accreditation Standards (EPAS) which give guidance to programs on curriculum design. In an effort to maintain the unique qualities of programs the standards are not prescriptive with regard to curriculum structure or content.

Accredited programs at both the Bachelor's of Social Work (BSW) and Master's of Social Work (MSW) levels require coursework in research methods. However, the effectiveness of research education has not been tested, and there is a lack of connection between the teaching of research methods and the teaching methods of professional practice. Efforts to remedy the gap between research and practice have come in two main forms: CSWE Curriculum Policy Statements (CPS), more currently Educational Policy and Accreditation Standards (EPAS), and investigations into how best to integrate research into all content areas (Dunlap, 1993).

More specifically, questions remain regarding the role and content of the research curriculum, the best teaching models, student outcomes, and utilization of research by practitioners. Many schools of social work are struggling to pinpoint the purpose of the research curriculum at all levels of social work education. For years social work educators have been asking questions such as: how are students best prepared to practice social work? What is the role of research in social work? Should (MSW) social workers be expected to conduct research or only to be consumers of research? These questions have been debated for decades among social work educators.

### Background to the Study

The conflict between social welfare work and objective social science research has been highlighted by many authors, including David Austin (1978) who chaired the Task Force on Social Work Research. Confusion surrounding the research curriculum is rooted in social work's "divergent developments" between the practice-research relationship (Austin, 1978). Today, leaders in social work are still asserting the need for social work professionals to "connect research and practice through partnerships among

researchers, the field, and communities" (National Association of Social Workers, [NASW] 2005, p.4).

Concern about weakened research curriculum (Kirk & Penka, 1989) was the focus of considerable attention during the 1970s and 1980s. The CSWE Curriculum Policy Statement (CPS) of 1982 reflected the movement toward a scientific method and MSW guidelines specified that programs were "to provide skills that will take students beyond the role of consumers of research and prepare them systematically to evaluate their own practice" (p.127). Originally this same CPS included a second charge, "to prepare students to contribute to the generation of knowledge for practice" (p.72). However, this second goal was criticized as being unrealistic and was subsequently dropped from the statement in 1986 (Fraser & Lewis, 1993).

To answer the call of integration from the CPS social work educators have given much focus to finding teaching methods that work best for social work students. In search of effective teaching methods, Weinbach and Rubin (1980) published a sourcebook authored by professors and instructors who teach social work research entitled, *Teaching social work research: Alternative programs and strategies*. The purpose of this book was to document research teaching methods in hopes of strengthening the research curriculum. Included in this publication, Wood (1980) introduced the practitioner-researcher model which combines the teaching of practice and research (production and consumption) within one unit. Over the past thirty years many attempts have been made to integrate the research curriculum with the rest of social work education. However, these teaching innovations are time-consuming and costly to university faculty and programs and still student outcomes remain questionable (Murtonen & Lehtinen, 2005).

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The purpose of social work education is to prepare social work students to become social work practitioners. Because of this, there have been notable efforts to determine how or if practitioners use research to inform their practice and improve service to clients. In the past social workers have been found to be deficient and uninterested in the use of research (Rosenblatt, 1968; Witkin, Edleson & Lindsey, 1980). These findings have caused concern among social work educators who have tried for many years to integrate the research curriculum with the thought that changing the curriculum would enable future practitioners to use research with competence.

Literature on the topic of social work research education validates the ongoing debate surrounding the role and content of research, teaching methods, student outcomes, and research use in social work. However, the process of teaching and learning the research curriculum, and students' attitudes or orientation toward research has received less attention and investigation than integrating the research curriculum with other social work curriculum components (Kelly & Bronstein, 2003). Studies attempting to measure student outcomes have utilized an instrument called the K-RRI and have endorsed its use in future studies. Secret, Ford, and Rompf (2003) state that "the Kirk-Rosenblatt Research Inventory (Kirk & Rosenblatt, 1981) and the revised Mathematics Anxiety Rating Scale would be better measures to use in future studies that go beyond the exploratory descriptive examination of this work" (Secret, Ford, & Rompf, 2003, p.419). The authors also state that conducting pre and post measures to examine change in students' attitudes over time might be informative.

## Statement of the Problem

Social work education is charged with imparting the knowledge and skills to produce and utilize applied research. The CSWE, which accredits social work programs across the United States, mandates that research be part of social work education. Because of the general nature of these statements, the content, structure and rigor of the research curriculum is not, and has never been, dictated by CSWE. Therefore, the structure and format of research curricula in all levels of social work education varies widely in its focus and rigor. In order to select appropriate teaching strategies, curriculum structure, and make better predictions about student learning, it is important for faculty to be knowledgeable about student outcomes. In terms of the research curriculum, it appears that much remains to be studied. More information is sought regarding students' knowledge about research and their subsequent use of research to inform their practice. The more that is discovered about the ways students learn research, and ways instructors can improve the teaching of research, the better social work educators may be able to produce research competent professionals.

Based on interviews with doctoral program directors, Jenson, Fraser, and Lewis (1991) found that the fundamental structure of social work education must be reconsidered if the profession is to make a serious effort at generating its own research knowledge. Fraser (1993) cites an important quote from Glisson, "review of the social work literature underlines one point if nothing else, we will not be successful in [our] efforts [to build knowledge] unless we first commit ourselves to improving substantially the quality of both our research training and our research" (p.17).

The purpose of the current study was to examine foundation year MSW student outcomes pertaining to the research curriculum. The researcher sought to understand students' attitudes toward research, research knowledge acquisition, and research self-efficacy. Students enrolled at five schools of social work were surveyed at the beginning and near the end of the foundation year.

## Significance of the Study

This study holds potential interest for social work educators. Confusion and tension surrounding the research curricula creates a need for further investigation. Studies have shown that the research curriculum, at all levels of social work education, continues to be an area that varies in content and rigor. There is a continued need to understand more about the research curriculum at all levels of social work education. The CSWE accreditation standards require that research be part of both the BSW and MSW curricula; however, the level of rigor, content, and learning objectives remain diverse. Further, it is well documented that the research curriculum is difficult to teach (see Capshew, 2005; Cowger & Kagle, 1980; Epstein, 1987; Green, Bretzin, Leininger, & Stauffer, 2001, Murtonen & Lehtinen, 2005). The current study did not account for variation in curriculum content, teaching modalities, or other extraneous variables such as learning environment; however, there needs to be mention of the predominate paradigm in social work research education.

The history of social work research has been dominated by the positivist paradigm (Reid, 1994). While alternative paradigms have been adopted in recent years (Reid, 1994), the teaching of qualitative methods in social work research has been slow to appear in the classroom. In a 2001 article Thyer (2001) speaks to the curriculum content

at the doctoral level and states, "Many doctoral programs now include more advanced statistical methods; some have added training in qualitative in addition to quantitative research methods..." (p.41). Although EPAS includes qualitative methods in their curriculum statement (CSWE, 2008b), the extent to which qualitative methods are taught is unknown. Olsen (1990) provides a window to course content with the following statement:

> The introductory research methods course includes standard content on problem formulation, measurement, sampling, and research design, including group designs and single subject designs. In the second semester statistics course, students work with a variety of statistical methods, ranging from simple univariate descriptive statistics to multivariate analysis. Students also develop computer skills and gain experience in using statistical packages such as SPSS (p. 156).

Although not inclusive of all research, throughout this paper the term 'research' is used to refer only to quantitative research and statistics as course content remains largely quantitative. Also, the survey instrument used in this study was created in 1977; this was before qualitative methods had begun to influence social work (Payne, 1997).

Various teaching models have been studied with the promise of more effective teaching methods. It is important to note that difficulty with teaching research is not unique to social work. Other professions, as well, struggle to integrate practice with research training (Fraser & Jenson, 1993). Instructors in other professions, such as nursing and psychology, have grappled with the teaching approach and curriculum development that comes with multiple professional goals (Fraser & Jenson, 1993). Therefore, this study may also offer insight to instructors across disciplines. In addition,

this study is an innovative attempt to observe more than one program or classroom. As Henley and Dunlap (1996) write, "investigation into effective teaching methods has generally focused on one school or professor" (p.18). The current study used multiple universities to detect differences in knowledge, attitude and self-efficacy outcomes over two observations near the beginning and end of the foundation year.

## Overview of Methodology

Students' knowledge, attitudes and self-efficacy toward research was measured over two semesters, more specifically, the academic year of 2007-2008. Master's of Social Work students enrolled in foundation year research courses at five universities were asked to complete a survey. The survey combined a modified version of the Kirk-Rosenblatt Research Inventory (K-RRI) (Kirk & Rosenblatt, 1981) and the Research Self-Efficacy (RSE) scale (Holden, Barker, Meenaghan, Rosenberg, 1999). See Appendix A for a finalized version of the survey instrument.

## Research Questions

The modified instrument included two attitude subscales, importance of research and usefulness of research, and a knowledge inventory with two subscales, statistics and research methods. The theory of self-efficacy has been identified as a useful framework for guiding the direction of the research curriculum (Montcalm, 1999). This theory, based on the writing of Bandura (1997), informed the addition of the RSE scale (Holden et al.,1999) to the survey used in the current study. Research questions one through six and ten are based on students in all five programs combined. While questions seven, eight, and nine compare two groups of students: those enrolled in one semester of research coursework and those enrolled in two semesters of research coursework over the

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foundation year. It is also important to make clear that questions one, two, and three ask about student outcomes at the beginning of the foundation year and, therefore, take into account student responses at the pretest only (N=106). The data analyses for the remaining questions were done with the matched pre and posttests which account for a smaller sample of students ($n$=75). Attrition of the sample was due to fewer students who took the posttest and the number of surveys the researcher was able to match pre to posttest. This study attempted to answer the following research questions based on student responses to the survey:

(1) What attitudes do students have toward research at the beginning of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(2) What knowledge do students have about research at the beginning of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?

(3) What level of research self-efficacy do students have at the beginning of the foundation year?

(4) Is there a change in attitudes from the beginning to the end of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(5) Is there a change in knowledge from the beginning to the end of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?

(6) Is there a change in research self-efficacy from the beginning to the end of the foundation year?

(7) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' attitude change (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(8) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' knowledge change (including total knowledge score and two knowledge subscales: statistics and research methods)?

(9) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' research self-efficacy?

10) Is there a relationship between students' attitudes at the beginning of the foundation year and knowledge change?

## Limitations

In previous studies, measuring student outcomes in the classroom has been met with less than satisfactory responses even from research faculty who would presumably have a vested interest. In the first study in which the K-RRI was used, the authors noted difficulty in retaining a cooperative sample of programs (Kirk & Rosenblatt, 1981). This has continued to be a challenge.

There was attrition of the sample on both the program level and the student level. Insuring a reasonable response rate was aided in part by students being able to use class time to complete both the pretest and posttest. Still, it could have been that some potential

participants were absent from class the day the survey was administered. There could have also been potential participants who refused to take either or both the pretest and posttest.

It is also likely that there was some response bias. Pleasing the researcher and social desirability to know the right answers and to complete the survey in accordance with what would be desired is expected. In an effort to decrease this limitation the surveys remained anonymous. Each participant created a unique identifier that only he or she knew. This allowed the researcher to match the pre and posttests at the end of the study.

The threat of repeated testing is also an important consideration. Having taken the pretest, students may have had a better understanding of learning objectives or expectations coming into the year than they would have had without the pretest. Further, the pretest and posttest were identical making this limitation even more of a consideration.

As previously stated, what is taught to students in terms of research content, rigor, and approach has been shown to have considerable variation across the country. At different universities there was likely a difference in instruction, teaching methods, and practical application of research. Additionally, there may have been differences outside the research coursework. For example, programs may differ in terms of the degree to which, if at all, research is integrated with other curriculum components.

Further it is acknowledged that coursework is not the only factor influencing students' knowledge, attitudes, and self-efficacy about research. In particular most students participate in an intensive practicum experience. A student's practicum and

MSW supervisor may or may not use research in his or her practice. This influence may have changed a student's outcomes even more than classroom experience.

## Definitions of Key Terms

It is important to define some key terms and their meaning in the context of the current study. The Carnegie classifications are used to describe the universities that participated in the study (Carnegie Foundation for the Advancement of Teaching, 2007). Table 1, in chapter 3, describes each university in terms of enrollment for fall of 2004, basic classification, enrollment profile, size and setting, and geographic region.

Foundation year—the foundation year is the first year of MSW student instruction.

Research faculty—includes anyone who teaches the research curriculum in a social work program.

Faculty contact person—faculty member who administered the survey to students.

Definitions of Carnegie classifications

Basic Classification:

Master's Larger—generally includes institutions that award at least 50 master's degrees and fewer than 20 doctoral degrees per year. Excludes special focus institutions and tribal colleges. This category is further divided into three program sizes: smaller, medium and larger programs.

Doctorate-granting Universities—includes institutions that award at least 20 doctoral degrees per year (excluding doctoral-level degrees that qualify recipients for entry into professional practice, such as the JD, MD, PharmD, DPT, etc.). Excludes special focus institutions and tribal colleges. This category is further described by three

levels of research activity: Doctoral/Research Universities, Research Universities with high research activity, and Research Universities with very high research activity.

Enrollment Profile Description:

By grouping institutions according to the mix of students enrolled at the undergraduate and graduate/professional levels, this classification provides a bird's eye view of the student population. For institutions with both undergraduate and graduate/professional students, institutions are grouped according to the distribution of student population's "center of gravity." As a result, it reflects important differences with respect to educational mission as well as institutional climate and culture- differences that can have implications for infrastructure, services, and resource allocation (p. 1).

Very high undergraduate—fall enrollment data show both undergraduate and graduate/professional students, with the latter group accounting for less than 10% of FTE* enrollment.

High undergraduate—fall enrollment data show both undergraduate and graduate/professional students, with the latter group accounting for 10-24% of FTE* enrollment.

*FTE: Full-time equivalent enrollment was calculated as full-time plus one-third part-time.

Size and Setting:

Medium four-year, primarily residential—fall enrollment data show FTE enrollment of 3,000-9,999 degree-seeking students at these bachelor's degree granting institutions. 25-49% of degree-seeking undergraduates live on campus.

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Large four-year, primarily nonresidential—fall enrollment data show FTE enrollment of at least 10,000 degree-seeking students at these bachelor's degree granting institutions. Fewer than 25% of degree-seeking undergraduates live on campus (includes exclusively distance education institutions).

## Researcher's Perspective

For social workers being accountable to clients is paramount. Understanding and using research in practice increases the chance that clients are getting the best service possible. In order to prepare students to evaluate their own practice and utilize research, groundwork must be built at the baccalaureate level. A clear understanding of what research is, why it needs to be used, and how to use and carry out research should be taught.

Historically teaching of the research curriculum has been handed to other disciplines such as sociology or psychology. It is important that faculty with a social work background teach the research curriculum; thus, bringing the social work perspective to the classroom. This enables integration of research and practice and increases the likelihood that students will use research in practice. Further, social work faculty who do enjoy teaching research may serve as positive role models for social work students. This endorses the reality that social work professionals, faculty, and students can use and carryout research.

If faculty could see social work as a melding of practice and research, it would be ideal. The splintering between research and practice is a hindrance to the profession. Research should be thought of as something you do as a competent social work professional, as part of one's practice and for the benefit of clients. It is hoped that social

work faculty, remembering that their opinions are often highly revered by students, keep a positive climate and environment toward research. Students can quickly judge and adopt the mind-set of faculty. Enthusiasm, or lack thereof, toward research can spread throughout a social work program. Faculty need to remember that research is important to the profession of social work and, therefore, social work students.

Experience teaching research methods to MSW students provides personal interest in this study. In the classroom, I have seen students willingly engage in research with varying levels of preparedness. Some students have reservations about their abilities to do research. Students need to see that research is accessible and comprehensible to them. Students should be empowered to partake in research to the level of their choosing, while remembering that through research and evaluation efforts we increase the likelihood that clients receive effective services.

## CHAPTER 2: LITERATURE REVIEW

History of Social Work Training

The role of research in the social work curriculum has been an area of debate and confusion since the beginning of the profession's inception (Austin, 1983). Central to this understanding is the broader context of social work as a new-found profession and the development of social work education. This literature review will present a historical account of important benchmarks that have influenced the professionalization of social work and the social work research curriculum. Before exploring the role of research in social work, however, one must understand the background of how social work became a profession. After this the literature review will chronicle empirical studies that investigate the role of research in social work.

Anna L. Dawes was among the first in the United States to voice a need for a standard education for charity workers. As a community leader and philanthropist in New England, she sought to hire a director for her charity; however, she grew frustrated by the lack of competent prospects for the job (Kendall, 2000). In 1893, Dawes addressed an audience at the International Congress of Charities and Corrections at the World's Fair in Chicago calling for a brief and practical course of study for charity workers (Leighninger, 2000).

*Charity Organization Societies*

The development of the Charity Organization Societies (COS), in the late 1800s, was central to the development of social work education. The aim of the COS was to

coordinate relief efforts in large cities. These societies disapproved of existing philanthropies because they lacked a method for working with the poor. It seemed that any good solution was simply a matter of chance. The COS sought to build an ordered and scientific approach to working with the poor. The dominant theory of poverty in the COS was that poor people had character flaws which could be corrected by 'friendly visitors' who would go door-to-door in an effort to correct their character and help the needy find independence (Leighninger, 2000).

One of the most influential leaders of the Charity Organization Society movement was Mary Richmond. As an orphan and part of the working class herself, she witnessed the drudgery of factory work first-hand (CSWE, 2001a). Richmond graduated from a highly respected all-girl's high school, but unfortunately, with no political connections, college was not in her future. With the help of friends she found office work. Shortly after joining the Baltimore COS, she was named director and swiftly became a prominent leader in the COS movement. In 1898 Richmond spoke at the annual National Conference of Charities and Correction in Boston. There she communicated a need for a common knowledge base and the establishment of formal training in "applied philanthropy" along with more substantive plans for education. Further, Richmond forecast a vital connection between academic learning and practice. This preparation has been sustained over the years, continuing to be important in current social work education (Leighninger, 2000).

Shortly after Richmond's speech the New York Summer School began offering a six-week course in applied philanthropy. Rather than being university affiliated, the New York Summer School was sponsored by the New York Charity Organization Society

(Austin, 1997). In 1904 this course developed into the New York School of Philanthropy a one-year program, and by 1911 it had an affiliation with Columbia University, a full-time faculty, and had added a second year of study (Kendall, 2000).

*Settlement House Movement*

At the turn of the century millions of European immigrants flocked to New York and Chicago. America was unprepared for the influx of poor immigrants and violence often erupted. During this time Jane Addams toured Toynbee Hall, a settlement house on the east-end of London. Leading by personal example, Addams, who came from a wealthy Quaker family, sought to forge a connection between the rich and the poor. Settlement houses founded by Jane Addams, such as Hull House in Chicago, provided a refuge for the large number of immigrant families coming to the United States. For Addams it was not difficult to find women who were willing to volunteer for the day. However, taking up residence in the slums of Chicago was a different matter altogether (CSWE, 2001a). At Hull House, Addams worked with others to provide childcare, cultural activities, sewing, English, and adult education classes. For the first time young women were graduating from new women's colleges and were anxious for new found opportunities and careers. Other famous women associated with the Settlement House Movement are Julia Lathrop, Sophonisba Breckinridge, Florence Kelley, and Edith and Grace Abbott (Austin, 1997). These upper-class women, interested in the poor conditions faced by immigrant women and children, found work in the settlement houses.

Like the COS, a need for training was recognized in the Settlement House Movement. Graham Taylor, another noted leader of the Settlement House movement, began offering a series of lectures in 1895. In Chicago collaboration between Hull House

and the extension department at the University of Chicago led to an organized course offering in 1903. In 1920 this program developed into the University of Chicago School of Social Service Administration and the first autonomous graduate school within a university (Kendall, 2000).

*The First Professional Schools*

The formation of two potential curriculum models began to take shape. One track would strive to educate a professional who would aim to better the individual. The focus would be to train the front line, direct-service providers for work in voluntary social service organizations. They would employ the systematic collecting and aggregation of individual cases in order to study, review cause, and plan intervention. The advocates of the second track envisioned social reform, societal change, and policy analysis. Kendall (2000) writes that "Jane Addams was equally committed to the value of facts as a means of bringing about reforms" (p. 100). Both Richmond and Addams saw the importance of the interplay between society and the individual; this is recognized today by social workers as the person-in-environment perspective. This person and environment construct is a hallmark of social work and social work education, and is mentioned in the first lines of the EPAS 2008 document (CSWE, 2008b).

In 1919 the Association of Training Schools for Professional Social Work formed as a result of a growing number of training schools in larger cities generally located east of the Mississippi and north of Washington, DC (Austin, 1997). Austin (1997) identifies many of these first schools' shared characteristics, such as being established privately, recruiting mainly altruistic women with an undergraduate degree, having a structured two-year graduate program of study, and training primarily for casework in voluntary

nonprofit agencies (1997). These schools commonly favored the curriculum model which focused on casework for the betterment of the individual (Kendall, 2000).

Social Work as a Profession

In conjunction with understanding the formation of training schools, it is also important to understand the beginning of social work as a profession, as this history has had lasting effects on the current state of the research curriculum.

In 1915 Abraham Flexner was invited to speak at the National Conference of Charities and Corrections on whether or not he deemed social work a profession. Flexner was well regarded as a person with expertise in professional educational training and standards, particularly in the medical field which social work often attempted to emulate. In his speech Flexner considered six criteria which define professional education: personal responsibility, research-based knowledge, practical results, communicable techniques, self-organization and altruistic motives (Flexner, 1915). He concluded with a negative response to the question of whether or not social work was a profession. He thought that a lack of fit with the medical model, and the lack of an autonomous knowledge base, would keep social work out of the esteemed ranks of the professions.

Flexner's deduction pushed leaders of social work training further as educators were determined to make social work fit Flexner's prescription (Dunlap, 1993). Leighninger (2000) writes that it is probable that the conference leadership invited Flexner to speak because he would support their own ideas about the way in which social work needed to grow. The influence of Flexner's speech on social work was dramatic and has had long-lasting affects.

In previous years, while searching for a "scientific" base, social work turned to disciplines such as sociology, psychology, and economics. However, it was soon realized that these disciplines did not provide the requisite focus on the individual—a framework which had become the pinnacle of social work training. Freud's theory was introduced to the social work community during a series of lectures at Clark University in 1912 (Austin, 1983). As emerging psychological theories of Freud were introduced in the United States, it seemed Freud would provide some of what Flexner noted was missing. The principles of psychoanalysis applied to the individual and fit well with the undertakings of a caseworker. Although social workers would not provide psychoanalysis themselves, the theory would provide methods to a profession struggling to reach recognition (Dunlap, 1993). Social work faculty quickly, and uncritically, adopted Freud's principles of psychoanalysis and integrated them into the curriculum (Dunlap, 1993).

### The Hollis and Taylor Report

The Hollis and Taylor report (1951) was written by specialists in the field of higher education as an initial review of social work education. The report provided a framework for reviewing what social work *is* and *is not*, and questioned who should accredit social work education and what should be accredited. The report included two major suggestions: first, the curriculum should be expanded to address both social policy and casework, and second, a single national organization for social work education should be established (Dunlap, 1993). The report also charged the entire community of social work to take responsibility for social work education. Toward these recommendations, in 1952, the National Association of Schools of Social Administration

(NASSA) and the American Association of Schools of Social Work (AASSW) merged to form the Council of Social Work Education (CSWE). The first CSWE accreditation document published in 1952 required a master's thesis be a part of the graduation requirements (Geismar, 1984).

In an effort to heighten the status of social work within the university community, social work sought a unified knowledge base and more stringent research requirements. However, this desire was met with a lack of research-trained social work educators. Social work students were often taught research by faculty outside of the social work unit. Thus, research was taught in isolation and not integrated into the curriculum. In addition, it is acknowledged that students in part, were attracted to social work because relatively low expectations in science and math would be placed on them (Geismar, 1984). Current studies on students' learning attributes still speak to this sentiment. After teaching research for thirty years, Epstein (1987) notes, "No other part of the social work curriculum has been so consistently received by students with as much groaning, moaning, eye-rolling, hyperventilation and waiver-strategizing as the research courses" (p.71). He goes on to state that reluctant students make reluctant learners.

*Boehm Report*

In 1959 the newly formed CSWE appointed Warner Boehm to conduct another comprehensive study of the social work curriculum. For this review Samuel Mencher was commissioned to investigate the role of research in social work. Mencher reported three research roles: "(1) practitioner of a service method, (2) research practitioner, and (3) research specialist" (Dunlap, 1993, p. 295). The research specialist was to have training past the MSW and was, therefore, omitted from the remainder of the report. A service

practitioner was to be able to appreciate, evaluate, and apply research knowledge. Finally, a research practitioner should be able to conduct agency research and apply the findings to policy and administration (Dunlap, 1993). Further, Mencher identified four content areas for research: scientific methods, problem solving through the research method, research in social work, and statistics. Wisely considering that critical thinking skills would be part of the overall curriculum, Mencher intentionally omitted critical thinking skills from the research content. Noting the diversity of training among schools Mencher pushed for the integration of the research component into the curriculum. Further he stated that the goal for the student would be to understand research not to conduct research. He predicted that only a few students would wish to become research practitioners and those students could elect research as a concentration (Dunlap, 1993).

*The 1960s and 1970s*

During these two decades there was tremendous growth in the number of MSW and doctoral programs. The CSWE Curriculum Policy Statement (CPS) of 1962 followed publication of the Boehm Report. Considering Mencher's recommendations in the guidelines it was acknowledged that research was an 'enabling method'. Research was relegated to a footnote stating: "Provision may be made, by schools with adequate resources, for a concentration in research for specially selected students" (Dunlap, 1993, p. 295).

The CPS of 1969 eliminated research as a required curriculum component altogether. It was anticipated nonetheless that the MSW graduate would be an intelligent consumer of research even though the CPS did not address research content, sequence or

objectives to be covered in the curriculum. The emphasis in the curriculum remained on the moral basis and commitment of students who were called to practice social work.

At this time schools of social work continued to grasp for respect and status within the university. The faculty remained mainly women who had at the most a master's degree. In an effort to gain this long-sought-after respect, there was an impetus for faculty to earn doctoral degrees. This required most faculty members to attend one of the few doctoral programs in social work or to come to rely on doctoral programs in other social science departments (Austin, 1978).

The social and political climate of the late 1960s and early 1970s gave rise to new challenges for social work education. Dwindling government resources due to money spent on the Vietnam War, increased energy prices and inflation caused a decrease in money available for social programs (Geismar, 1984). These diminished resources created a growing demand on social programs to demonstrate their accountability in order to receive funds.

For the first time the accountability challenge allowed the effectiveness of casework and other social welfare programs to be called into question (Geismar, 1984). The profession of social work faced another round of criticism as uncertainty mounted against the effectiveness of casework. In 1973, Fischer reviewed 11 controlled studies and found that casework was not effective. "Not only has professional casework failed to demonstrate it is effective, but lack of effectiveness appears to be the rule rather than the exception across several categories of clients, problems, situation, and types of casework" (Fischer, 1973, p. 9). This combination of factors set the stage for a continued quest for a scientific, knowledge base grounded in data (Jenson, Fraser, & Lewis, 1991).

The Dinerman report (1981) has been called "the first major curriculum study since the Boehm Report of 1959" (Henley & Dunlap, 1996, p.17). Although this report predates most recent versions of the CSWE guidelines, it nevertheless provides the most current overview of research in social work education (Henley & Dunlap, 1996). Dinerman reviewed a stratified sample of baccalaureate and master's programs accredited by CSWE between 1977 and 1979 (Dinerman, 1981). With specific regard to the research curriculum, Dinerman found that stated objectives did not match actual content, there was no agreement on a continuum of research knowledge, and research had little integration with other curriculum areas. The most frequently used textbooks were general social research texts, unrelated to social work (1981). Further, in 25 of the 29 BSW programs, research courses were taught by faculty outside the social work unit (Dunlap, 1993). In conclusion, Dinerman (1981) stated that "a scientific orientation is neither very pervasive, nor well understood, whatever the level of program or type" (p.36).

## The Last Thirty Years

In order to provide full context for the complex issues surrounding research in social work four topic areas will be explored in more depth. Stated generally these areas include: the role and content of the research curriculum, teaching of research, measurement of student outcomes, and use of research in practice. Empirical studies conducted within the past thirty years, which focus on each area will be presented. Because of the lack of empirical evidence offered in the recent past, current conditions remain largely as they have in the last thirty years. Next, theoretical underpinnings of the current conditions will be presented and tied to the study.

The 2005 Social Work Congress was a historic assembly of 400 social work experts. These individuals met in Washington D.C. with the charge to "advance the profession of social work; to develop a common agenda for the social work profession for the next decade; and to launch an action campaign to transform the social service landscape" (NASW, 2005, p.2). To this end, the group of social work leaders created 12 imperatives intended to guide the profession into the coming decade. One of these imperatives speaks directly to the need for bridging the gap between research and practice. That is, "Connect research and practice through partnerships among researchers, the field, and communities" (p.4).

As Dunlap (1993) states, "Research has been an important element of social work since the inception of the profession. In social work education, there has been, however, pervasive and enduring confusion regarding the design and implementation of the research curriculum" (p. 293). As stated previously the formation of the Task Force on Social Work Research was a major benchmark for the field in the late 1980s. A report by the task force (1991) provided a review of research education, research resources, and research developments in social work. Accredited BSW and MSW programs require research methods; yet, the effectiveness of research education has not been tested and there is a lack of connection between the teaching of research methods and teaching methods of professional practice. Section II of the task force report focuses on research education in social work including current status, problems in research education, and challenges and recommendations. The task force cited one major difficulty as the lack of integration of research and practice content. "Courses on research methods were taught

largely in isolation from courses on practice methods," and in some institutions, research content is taught outside of the program by non-social work faculty (Task Force, 1991, p.18-19).

Social work education is charged with imparting the knowledge and skills to produce and utilize applied research, including evaluation. Competency in using and producing evaluation research to inform practice is integral to the profession of social work. However, concern for the research curriculum has been documented by CSWE Commission of Accreditation. Failure to meet the research requirement is a common reason for conditional accreditation or serious concern (Hull & Mokuau, 1994). Current CSWE (2008b) EPAS regarding research states:

> Social workers use practice experience to inform research, employ evidence-based interventions, evaluate their own practice, and use research findings to improve practice, policy, and social service delivery. Social workers comprehend quantitative and qualitative research and understand scientific and ethical approaches to building knowledge. Social workers use practice experience to inform scientific inquiry and use research evidence to inform practice (p. 5).

The importance of research is further articulated by the National Association of Social Workers (NASW) Code of Ethics 5.02 Evaluation and Research as a professional responsibility. "(a) Social workers should monitor and evaluate policies, the implementation of programs, and practice interventions. (b) Social workers should promote and facilitate evaluation and research to contribute to the development of knowledge" (NASW, 2008, p.25).

Despite the stated importance of research to social work the structure and format of research curricula in master's level social work education varies widely in its focus and rigor. The extent to which research is included in the MSW research curricula is unclear. A 1972 survey of accredited schools documented a vast range of research requirements. Later in a secondary analysis of this 1972 survey, Zimbalist and Rubin (1981) analyzed schools with extreme differences in research requirements. Schools with the "highest" and "lowest" research requirements out of 73 responding programs were juxtaposed for a possible explanation of differences. Size of the program, in terms of number of MSW graduates per year, was the most significant correlate with research requirements. Larger schools appeared on the lower range while smaller schools were overrepresented at the upper end of the scale. The presence of a doctoral program was also identified as a related factor. Schools with an advanced degree program were on the lower scale, while programs without appeared on the higher end. It could be that Ph.D. programs divert experienced research faculty away from teaching in the MSW programs. Although this survey is dated it is thought that this variance in research requirements remains to date (Dinerman, 1981; Fraser, 1994; Jenson et al., 1991; Kelly & Bronstein, 2003).

Fraser, Lewis, and Norman (1990) described the required research coursework in schools of social work and attempted to answer the question: What is the nature of research education in schools of social work four years after the implementation of the CSWE 1982 Guidelines? These guidelines provided advice to social work programs on, among other parts of the curriculum, the research training. The study consisted of conducting a three-stage survey of all 90 MSW programs accredited in 1987. Findings

revealed substantial variation in the number of credit hours required in the research sequence and in the content of required courses. Three different methods for structuring research courses were identified. They concluded that the variations were a result of philosophical differences regarding the role of research in the social work curriculum.

In addition, the requirement to demonstrate accountability has grown increasingly strong over the past thirty years. The need to provide evidence to support practice approaches and program design is called for by funders and service users. Collins and Kayser (1994) write that, "One of the greatest barriers for social workers in meeting the increasing expectations for accountability is their lack of preparation for carrying out applied research in practice settings, which may make them reluctant to engage in practice evaluation activities" (p.241). This statement begs the question, is it really a lack of preparation? If so, investigation into the teaching methods is warranted.

*Teaching of Research*

Many authors have expressed the difficulty faculty experience while teaching the research curriculum (Adam, Zosky, & Unrau, 2004; Capshew, 2005; Epstein, 1987; Greene, 1987; Murtonen & Lehtinen, 2005; Wainstock, 1994). Kelly and Bronstein (2003) state, "Students entering research classes often do so with preconceived ideas and anxieties. No other classes in the curriculum need to be attentive to undoing so many preconceptions before learning can even begin" (p.262).

The research curriculum was the focus of considerable attention during the 1970s and 1980s. More specifically, there was concern about weakened research curriculum (Kirk & Penka, 1989). The CPS of 1982 reflected the movement toward a scientific method and MSW guidelines specified that programs were "to provide skills that will

take students beyond the role of consumers of research and prepare them systematically to evaluate their own practice" (p.127). Originally this same CPS included a second charge, "to prepare students to contribute to the generation of knowledge for practice" (p.72). However, this second goal was attacked as being unrealistic and was subsequently dropped from the statement in 1986 (Fraser & Lewis, 1993).

In search of effective teaching methods, Weinbach and Rubin (1980) published a sourcebook authored by professors or instructors who teach social work research entitled *Teaching social work research: Alternative programs and strategies*. The purpose of this book was to document research teaching methods in hopes of strengthening the research curriculum. Included in this publication, Wood (1980) introduced the practitioner-researcher model which combines the teaching of practice and research (production and consumption) within one unit. This is one of many attempts to bridge the gap between practice and research as described above.

Recently, Hardcastle and Bisman (2003) have summarized the three primary teaching models (with many variations) being used today. The first is the *Educated Consumer of Research*. Under this model instructors focus on teaching critical thinking skills so that students can be critical consumers of the literature. Increasingly, this model is not used alone and is becoming dated. The second is the *Practitioner Scientist*. Here instruction aims to prepare students to "approach case practice and intervention as a research endeavor and to see research as an opportunity for social science knowledge building" (p.32). Finally, the intention of the *Research as Practice Methodology model* is that research knowledge and skills support and improve practice. Differing from the other two models, this model recognizes the complexity of professional practice.

Social work students are often described as reluctant researchers, more disinclined to be interested in learning research methods (Epstein, 1987). After teaching research for thirty years Epstein (1987) notes, "no other part of the social work curriculum has been so consistently received by students with as much groaning, moaning, eye-rolling, hyperventilation and waiver-strategizing as the research courses" (p.71). He goes on to state that reluctant students make reluctant learners. However, as the following studies suggest, evidence regarding students' attitudes toward research is mixed and remains largely anecdotal (Lazar, 1991).

Rosenblatt and Kirk (1981) surveyed undergraduate, master's, and doctoral social work students (*n* =1127) in order to investigate students' knowledge change and attitudes toward the research curriculum. Students enrolled in 15 different programs were tested on knowledge and attitudes. This research was supported by CSWE and the NIMH. The work tested the relationship between research orientations, research knowledge and research education for all three levels of training. The study had been conceptualized as a pretest and posttest design; however, responses to the posttest in the spring were so low that data had to be presented in a cross-sectional format. Therefore, the investigators measured the cumulative effect of the research coursework on BSW, MSW, and doctoral students. Findings from this study indicated that the three levels of social work training were distinguishable on knowledge. On the 60 item true-false knowledge index, MSW students (*n*=552) had a mean score of 32.9, meaning 33 of 60 items were correct, BSW students (*n*=467) had a score of 28.1 and doctoral students averaged 42.8 items correct. It is encouraging that a difference in level of education and knowledge was found; however,

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the difference is small and effect sizes were not reported (Fraser & Jenson, 1993). The attitudes of students at all three levels increased positively, in slight increments, on both the importance and usefulness of research subscales (Rosenblatt & Kirk, 1981).

Siegel (1983, 1985) utilized a modified K-RRI to survey 148 first-year MSW students enrolled in randomly selected sections of an integrated research and practice course. Findings showed that knowledge scores increased significantly from the pretest to the posttest. Interestingly, the students' attitudes toward research became less favorable on all three subscales over the course of the foundation year (Siegel, 1983).

Olsen (1990) has also used the K-RRI to survey 60 graduate students over the tenure of their MSW program. The purpose of the study was to evaluate the effect of integrating practice and research coursework. These findings revealed that both students' positive attitudes and knowledge increased over time, contradicting Siegel's (1983) findings described above.

Secret, Ford, and Rompf (2003) surveyed 285 BSW students enrolled in an introductory research course. Self-report surveys were administered on the first day of class prior to any instruction. Results indicated a wide range of attitudes on the attitude measures. Secret et al. (2003) used the Research Course Appeal Index and found a slightly positive skew on this measure suggesting overall positive attitudes. They also found that as students' knowledge of statistics increased their fear of research diminished. The authors state that this information is important because instructors who wrongly assume that students' attitudes are negative strongly influence the classroom atmosphere.

Studies attempting to measure student outcomes have utilized the K-RRI and have endorsed its use in future studies. Secret, Ford, and Rompf (2003) state that "the Kirk-

Rosenblatt Research Inventory (Kirk & Rosenblatt, 1981) and the revised Mathematics Anxiety Rating Scale would be better measures to use in future studies that go beyond the exploratory descriptive examination of this work" (Secret, Ford, & Rompf, 2003, p.419). The authors also state that conducting pre and post measures to examine change in students' attitudes over time might be informative.

Green, Bretzin, Leininger, and Stauffer (2001) conducted a study to investigate student research anxiety, computer anxiety and research orientations. Among other measures created by the authors, they utilized 5 items from the K-RRI in order to measure students' attitudes and anxiety toward research and research coursework. One hundred and forty-nine graduate students in social work, psychology, and business were surveyed. Master's of social work students were compared with a mixed group of psychology and business graduate students. The authors found that social work students did exhibit more computer and research anxiety than both psychology and business graduate students (Green et al., 2001). Green et al. call for future studies of teaching methods identified in the social work literature to identify the strengths, weaknesses, and effectiveness of these methods.

Kelly and Bronstein (2003) evaluated the use of a folder feedback system as a teaching tool and its impact on student outcomes. Based on principles of adult learning theory, the folder feedback system enables faculty and student interaction with attention to mutual planning and assessment of learning needs and outcomes. In an experimental design, 46 first-year MSW students were randomly assigned to a class which used the folder feedback system or a class which did not use this tool. Four measures were used to assess student outcomes: the Teacher Evaluation Form (TEF), the Adult Classroom

Environment Scale-Form R (ACES-R), the K-RRI, and final course grades. It is important to note that the K-RRI was the only instrument used pre and post. As the authors hypothesized, a significant difference was found on final grades in the student group which used the folder feedback system. However, this was the only outcome measure where a significant difference was found.

Studies prior to Kirk and Rosenblatt (1981) have viewed students' attitudes as one-dimensional, either favorable or unfavorable. However, Kirk and Rosenblatt realized that students' attitudes toward research are complex and multidimensional. As a result, the K-RRI measures three dimensions of attitudes toward research: importance, usefulness, and unbiased nature of research. For example, "a student can view research as critically important to the profession, yet firmly believe that much current research is not useful to practice" (p.32).

An important issue that arises from the studies regarding student outcomes is how much is enough? Or what is the right amount of exposure to research for students? This study will present a novel investigation where two groups of students are compared in order to determine if student outcomes differ given the amount of research curriculum the students experience. As previously stated the structure of the research curriculum is not prescribed by CSWE. As a result some programs require students to take two semesters of research while other programs require one semester. Murtonen and Lehtinen (2005) write, "Universities are investing huge resources in teaching students research skills, but learning outcomes of methodology courses are not as good as expected, even after several courses" (p.217). There is a dearth of information regarding the best way to structure MSW research curriculum based on student outcomes. Because of this, it is worthwhile

to investigate how students' exposure to research affects student outcomes. Research questions seven, eight and nine will test if differences, in knowledge, attitudes and self-efficacy, can be detected between students who had one semester of research and those who had two semesters of research during the foundation year.

*Generating Knowledge and Using Research to Inform Practice*

During the 1980s the practice utility of research was called into question. Cowger and Kagle (1980) analyzed journal articles in four social work journals for their practice utility. Their findings revealed that only about 30% of the articles reviewed achieved the definition of practice utility put forth in the study. They maintained that research studies should focus on improving research utilization for social work practice. The authors also acknowledged a need to forge a link between research and practice as an important task for social work in the 1980s.

Along similar lines Kirk and Penka (1989) surveyed 276 direct practice social workers who were members of the National Association of Social Workers (NASW). The major research question under investigation was: what can we learn about MSW education by looking at graduates? To their surprise the authors found no relationship between year of graduation and the subsequent practice of single-subject or other research. As well, the number of research and statistics courses taken did not influence involvement in research while in practice. In contrast, exposure to single-subject design did appear to be related to subsequent research involvement.

## Theories to Guide Study

### *Use of Self-Efficacy*

In a very practical paper on the use of, and participation in, research by hospital social workers, Simon (1991) writes about the need for increased accountability and empirically based practice. However, she states that, "Many clinicians are hampered by doubts about their knowledge and skill in research" (p.118). These doubts are what researchers are interested in when speaking of self-efficacy. The issues of student anxiety and lack of practitioner use of research have both been attributed to feelings or doubts students hold about their ability to "do" research (Montcalm, 1999).

Based in social cognitive theory, the first notion of self-efficacy was written about by Albert Bandura in 1977. Bandura (1997) writes that, "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the course of action required to produce given attainments" (p.3). The theory of self-efficacy has been identified as a useful framework for guiding the direction of the research curriculum (Montcalm, 1999). "Bandura's theory suggests shifting the focus from generic notions about research's importance and utility to perceptions students hold about their own research competencies and the outcomes they expect to accompany their personal involvement in research" (Montcalm, 1999, p.96).

In 1999, Holden, Barker, Meenaghan and Rosenberg developed a research self-efficacy (RSE) scale to measure students' level of confidence to complete nine research tasks (Holden, Barker, Meenaghan & Rosenberg, 1999). The authors state, "The RSE is best suited for assessing change in the Foundation research methods course" (Holden, Meenaghan, Anastas, & Metrey, 2002, p.117).

*Adult Learning Theory*

The work of adult learning theorist Knowles became influential during the 1980s with specific application to training in the professions (Coulshed, 1993). Simon (1991) states, "Research by Knowles and Starr indicated that adult learners are more receptive to learning material that improves their job skills" (p.120). Coulshed (1993) has argued that by applying the principles of adult learning theory to social work education practice itself may benefit. The utility of Knowles' theories are pertinent to research educators who allow students to become empowered by taking responsibility for their own learning. Examples include faculty who employ the use of learning contracts and mutual curriculum planning. The importance of learning in an environment of respect and collaboration is emphasized (Coulshed, 1993). Recent studies examining student performance and effective teaching methods have stressed the importance of these same principles (Hyduk & Large, 1999; Kelly & Bronstein, 2003). Negative attitudes and anxiety surrounding research, by both faculty and students, cannot be ignored. Knowles' work in adult learning theory acknowledges that negative emotion can be a barrier to learning (Hyduk & Large, 1999). A specific principle of learning from Knowles (1990) which addresses negative emotion is Motivation and Personality Theory. This principle states, "anxiety level of the individual learner may determine the beneficial or detrimental effects of certain kinds of encouragements to learn" (p.68). This principle holds specific relevance to research question ten which will focus on the relationship between students' attitudes and knowledge change.

Summary of Literature Review

In training master's level social workers the research curriculum continues to provoke tension. The best way to integrate the research curriculum has been explored quite extensively. There is less known about students' attitudes and knowledge surrounding the research curriculum. Many educators assume that teaching research will be met with contention.

Social work educators, at all levels of social work training, are still asking what is the purpose of research coursework. What does it consist of? What should be taught? Is there a continuum of knowledge? If so, what is it? There are many broad questions which continue to go unanswered decade after decade. It remains unclear what, if any, improvements have been made to the state of research curriculum after the commission of the task force.

The present study may make multiple contributions. The literature is supportive of the continued use of the K-RRI. The investigation of multiple programs in a pretest-posttest design is also supported in the literature. Empirical studies and theories detailed above substantiate the methods carried out in this study. The implications of this study may also be of value to instructors teaching research in related disciplines.

## CHAPTER 3: METHODOLOGY

### Research Design

The design for this study was a longitudinal, nonequivalent groups design with a pretest and a posttest. Random assignment was not possible because students were in intact groups. Master's of Social Work students at five universities participated in this study. Students' attitudes toward research, knowledge of research, and research self-efficacy were measured over the foundation year. Two separate research instruments which had been previously designed and utilized for other studies, were combined to create the survey instrument used in this study. Permission to use these instruments was obtained from the authors. Pilot testing was used to help establish content validity, and improve questions and formatting of the instrument. Results of the pilot test were used to improve the final instrument. The instrument is described in further detail below and is included in Appendix A.

### Research Questions

The modified instrument included two attitude subscales, importance of research and usefulness of research, and a knowledge inventory. The theory of self-efficacy has been identified as a useful framework for guiding the direction of the research curriculum (Montcalm, 1999). This theory, based on the writing of Bandura (1997), informed the addition of the RSE scale (Holden et al.,1999) to the survey used in the current study. Research questions one through six and ten are based on students in all five programs combined. While questions seven, eight, and nine compare two groups of students: those

enrolled in one semester of research coursework and those enrolled in two semesters of research coursework over the foundation year. It is also important to make clear that questions one, two, and three ask about student outcomes at the beginning of the foundation year and, therefore, take into account student responses at the pretest only (N=106). The data analyses for the remaining questions were done with the matched pre and posttests which account for a smaller sample of students ($n$=75). This study attempted to answer the following research questions based on student responses to the survey:

(1) What attitudes do students have toward research at the beginning of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(2) What knowledge do students have about research at the beginning of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?

(3) What level of research self-efficacy do students have at the beginning of the foundation year?

(4) Is there a change in attitudes from the beginning to the end of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(5) Is there a change in knowledge from the beginning to the end of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?

(6) Is there a change in research self-efficacy from the beginning to the end of the foundation year?

(7) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' attitude change (including total attitude score and two attitude subscales: importance of research and usefulness of research)?

(8) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' knowledge change (including total knowledge score and two knowledge subscales: statistics and research methods)?

(9) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' research self-efficacy?

10) Is there a relationship between students' attitudes at the beginning of the foundation year and knowledge change?

## Participants and Sites

*Sampling of programs to be included*

In this study sampling took place on two levels: the social work programs and the individual students who participated. Master's of Social Work programs at separate universities were contacted and recruited to participate in this study. In order to participate, programs had to have accreditation status by CSWE. According to a 2006 survey of all social work programs, there are 181 accredited MSW programs in the United States (Council of Social Work Education, 2007b). The selection of similar programs reduced the number of intervening variables involved in this research. All

universities included in this study were public and located in the United States. Four of the five social work programs were combined programs meaning they offer degrees at both the baccalaureate and master's level. One university offers a Ph.D. in Social Work in addition to the baccalaureate and master's degrees. Programs included in the sample offered traditional instruction in the classroom to MSW students during the foundation year. An initial pool of eligible programs was created using the criteria stated above. The information needed to create this pool was gathered from a combination of program websites and from CSWE publications such as the Summary information on Master's of Social Work programs (Council on Social Work Education, 2001b). From this eligible pool, a nonprobability, convenience sample of social work programs was selected (Figure 1). It was thought that by selecting programs with pre-existing relationships to Colorado State University faculty, the likelihood of interest and participation in the study would increase. This sample included 22 social work programs. The social work program directors at these selected universities were mailed an initial contact letter (Appendix B) which described the purpose of the study, the requirements for participation and enclosed a one-page dissertation proposal brief. Program directors were asked to call or email if they were interested in participating. This letter also stated that for participating in the study, program directors would receive feedback on their student outcomes, as well as cumulative comparisons with all other participating programs. Eleven social work programs expressed interest in participating. These schools were sent a second letter informing faculty that the study had been approved by the IRB and asking that they send a letter of agreement. Each participating university was required to provide a letter of agreement written to the IRB. This letter was to be printed on their school's letterhead

and required them to convey an understanding of the study and their obligations. Included with this letter was an example letter of agreement (Appendix C) to ease and encourage participation. Out of the 11 schools expressing interest in participating to this point, seven sent letters of agreement as necessary. The faculty contacts at these seven schools were mailed packages containing the surveys, an in-class announcement (Appendix D) and a self-addressed, postage-paid envelope in order to return the surveys. The surveys were administered as detailed below. It is important to note that although pretests were received back from all seven universities; posttests were not returned by two universities. Therefore, students from five universities are included in the final sample. The final response rate for programs participating in both the pre and posttests was 5 out of 22.

A summary of characteristics including the total enrollment, basic classification, enrollment profile, and size and setting for the five participating universities is provided in Table 1. Classification details are provided by The Carnegie Foundation for the Advancement of Teaching and are used in this study for descriptive purposes. While the Carnegie Foundation provides specific enrollment numbers, care has been taken to ensure that individual universities cannot be identified in this profile. As a result, a more general enrollment range is provided in Table 1. The general geographic region illustrates the regional diversity of the sample throughout the United States.

Table 1

*Description of Participating Universities*

| University | Enrollment Fall 2004 | Basic Classification | Enrollment Profile | Size and Setting | Geographic Region |
|---|---|---|---|---|---|
| University A | 15-20,000 | Master's Larger | Very High Undergrad | Large 4-year Nonresident | Northwest |
| University B | 15-20,000 | Master's Larger | Very High Undergrad | Large 4-year Nonresident | Pacific Coast |
| University C | 25-30,000 | RU/ Very High research activity | High Undergrad | Large 4-year Nonresident | Mountain West |
| University D | 40-45,000 | RU/ Very High research activity | High Undergrad | Large 4-year Nonresident | Southeast Atlantic |
| University E | 10-15,000 | RU/ High research activity | High Undergrad | Med 4-year Prim Resident | Northeast Atlantic |

Table 2 provides a description of the social work programs which participated in the study. The information provided in this table includes total number of MSW graduates per year, number of research courses taken during the foundation year, the percentage of applicants to admissions in the full time program, and the CSWE region. These characteristics are provided for descriptive purposes except for the number of research courses taken during the foundation year (1 semester versus 2 semesters) which was used as an independent variable.

Table 2

*Description of Social Work Programs at Each Participating University*

| University | Total number of MSW grads per year | Number of Research Courses | Percentage of applicants admitted | CSWE Region |
|---|---|---|---|---|
| University A | 75 | 1 | 50 | Region 10 |
| University B | 35 | 1 | 30 | Region 9 |
| University C | 66 | 2 | 31 | Region 8 |
| University D | 102 | 1 | 49 | Region 4 |
| University E | 25 | 1 | 45 | Region 1 |

*Note: Relates to full time admissions rate only.*

181 Accredited Master's level Social Work Programs

22 Initial contact letters were mailed

11 programs expressed interest

7 program directors wrote IRB letters of agreement

Survey packages were mailed out to each of the 7 participating programs

Pretests were administered at the beginning of the foundation year

Posttests were administered at the end of the foundation year

7 programs returned pretests

5 programs returned posttests

Resulting in 5 programs participating

Pretests n=106

Posttests n=86

Total of 75 pre and posttests were matched to individual students

*Figure 1*
*Flow Chart of Sampling Procedure.*

Because convenience sampling was used, it is important to check the representativeness of the sample to the larger population (Gliner & Morgan, 2000). In other words, it is important to compare the social work programs that participated in the current study with other social work programs located in the United States. In this study sampling took place on two levels: the social work programs and the individual students who participated. It is recognized that universities in which participating social work programs are housed may also influence social work programs and student characteristics. Therefore, universities where participating social work programs are located are described in terms of Carnegie classifications. Definitions for the classifications used to describe the five participating universities are provided under the heading, Definitions of Key Terms in chapter 1.

Again, according to a 2006 survey of all social work programs, there are 181 accredited MSW programs in the United States (Council of Social Work Education, 2007b). The national average acceptance rate for MSW programs is 65% compared to the rate of the sample in the current study which is 41%. Also, when comparing the number of MSW graduates from a program per year, the sample in the current study is representative of the national average. Figure 2 illustrates the percentage of programs that have a specified range of MSW graduates annually. As portrayed in Figure 2 the five participating programs (numbers represented in red) are within the top three graduate ranges.
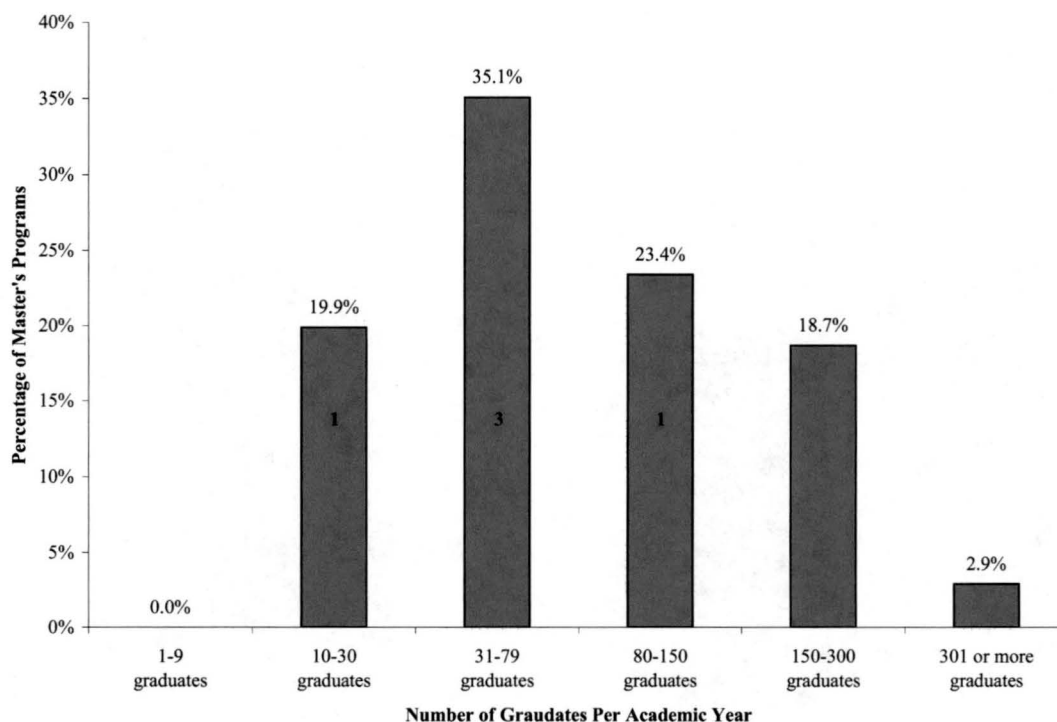
*Figure 2*

*Percentage of Master's Programs by Graduate Ranges (modified from Council on Social Work Education, 2007b). Five participating programs are represented in red.*

When looking more closely at institutional auspices where social work programs are housed, of 111 combined BSW and MSW programs, 88 programs (79%) were located in state public institutions (Council of Social Work Education, 2007a). Also, graduate and combined programs are most likely to be in institutions with 10,000 or more full-time students (Council of Social Work Education, 2007a). The programs in the current study are reflective of these numbers as all five social work programs are located in state public institutions with 10,000 or more full-time students.

*Student Participants*

All students surveyed were foundation year MSW students. Students were enrolled in a first year research course and were recruited, in the classroom, based on their individual willingness to complete the survey. Therefore, sample size was

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influenced by the program's willingness to participate and response rates from students. Student response rates can be calculated based on the total enrollment in the research courses at each participating program. However, to clarify, the total number of students present in the classroom when the survey was administered is unknown. Response rates are based on enrollment in the research class which may have been different than the actual number of students in class on the day of the pretest or posttest. Based on student enrollment numbers, the response rate for the pretest is 88% and 71% for the posttest. Out of the total enrollment of 120 students, 75 pretest and posttest matches were able to be made resulting in an overall response rate of 63%. Because the survey was anonymous, the reason for a non-respondent is unknown. In other words, a student may have had any number of reasons for not completing the survey. He or she may have dropped the course, refused, or been absent on the day the survey was administered. Table 3 details the total student enrollment in the foundation year research course, the number of pretest and posttest surveys returned to the researcher, the number of surveys which were able to be matched using the unique identifier on the surveys, and the response rate at each program. One hundred and six pretests were received from the five participating schools. All 106 pretests were used to determine the results for research questions 1, 2, and 3 which asked about student outcomes at the beginning of the foundation year. The results of the other research questions were analyzed using the matched sets of surveys totaling 75.

Table 3

*Number of Responses to the Survey at Each University*

| University | Students enrolled | Pre | Post | Matching set | Percent Response rate |
|---|---|---|---|---|---|
| University A | 25 | 19 | 13 | 13 | 52 |
| University B | 21 | 21 | 16 | 15 | 71 |
| University C | 27 | 27 | 26 | 20 | 74 |
| University D | 23 | 19 | 18 | 15 | 65 |
| University E | 24 | 20 | 13 | 12 | 50 |
| **Total** | **120** | **106** | **86** | **75** | **63** |

Table 4 provides individual student demographic information for the students who participated in both the pretest and the posttest ($n=75$). The unit of analysis for this study is individual students who responded to the survey.

Again, it is important to compare the student demographic information for the students who participated in this study to other MSW students. Based on the 2007 Annual Survey of programs by CSWE, females compile 87% of students enrolled in MSW programs across the nation (Council on Social Work Education, 2008a). Females in the current study made up 88% of survey respondents. In all MSW programs responding to the CSWE survey, 63% of students attend full-time whereas, in the current study, 92% of students responded that they attended full-time (Council on Social Work Education, 2007b).

Table 4

*Individual Student Demographic Information in Percentages*

| Univ | Female | 27 years or older | Undergrad GPA Above 3.0 | Have BSW | Have some social work employment experience | Full time status | Have GRA Experience |
|---|---|---|---|---|---|---|---|
| A n=13 | 100 | 54 | 77 | 8 | 15 | 100 | 15 |
| B n=15 | 87 | 47 | 67 | 20 | 57 | 93 | 0 |
| C n=20 | 95 | 50 | 70 | 5 | 68 | 100 | 15 |
| D n=15 | 67 | 47 | 93 | 0 | 27 | 100 | 27 |
| E n=12 | 92 | 67 | 67 | 8 | 58 | 58 | 33 |
| **Total Sample n=75** | **88** | **52** | **75** | **8** | **39** | **92** | **17** |

Research Variables

Based upon the research questions stated above several independent and dependent variables have been identified. These variables are further described in the following section. One independent variable is change over time, which has two levels or observations: at the beginning of the foundation year (pretest) and the end of the foundation year (posttest). Other independent variables are the student demographic characteristics which were collected. These independent variables include the following: part-time or full-time student status, gender, undergraduate grade point average (GPA), undergraduate major (BSW or not), having experience as a research assistant or not, number of years employed part-time in social work and number of years employed in

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full-time social work. Finally, the number of semesters of research coursework (1 semester or 2 semesters) is an independent variable.

Seven outcome scores represent the dependent variables. There are three scores for attitudes (importance of research, usefulness of research, and total), three scores for knowledge (statistics, research methods, and total) and one total research self-efficacy (RSE) score. These dependent variables are all based on self-report by individual students who responded to the survey described below.

Research Instrument

Two previously designed survey instruments were combined to form the survey administered to students in this study. The K-RRI was modified and used in this study, and the research self-efficacy (RSE) scale was used. The Kirk-Rosenblatt Research Inventory (K-RRI) was abbreviated from its original form in two substantial ways. First, only two of the original three attitude subscales were used. The original K-RRI measured attitudes on three subscales: importance of research, usefulness of research, and the unbiased nature of research. The subscale 'unbiased nature of research' was not used in this study in order to make the instrument shorter and because this subscale was deemed out-of-date. Second, the original 60-item knowledge inventory was reduced to 30 items. Again, this was in order to reduce the length of the survey and time necessary for students to complete the instrument. The nine-item research self-efficacy (RSE) scale (Holden et al., 1999) was added. The RSE was not modified other than being included as part of a larger survey. Students rated themselves on the scale which spans from 0 to 100. The following three anchors are provided: 0=cannot do at all, 50=moderately certain can do, and 100=certain can do.

*Description of the Kirk-Rosenblatt Research Inventory (K-RRI)*

Initial work on the K-RRI began in 1977 by the authors for which the instrument is named: Stuart A. Kirk and Aaron Rosenblatt. The authors collected comments from four members of the faculty members at University of Wisconsin, Milwaukee and pre-tested a group of 56 students on an initial version of the inventory. The pretests lead to a revised and consolidated version of the instrument.

*The Attitude Index*

The K-RRI attitude index measured three dimensions of attitude: importance, usefulness, and unbiased nature of research. It is reiterated that the current study utilized two of the three attitude dimensions: importance and usefulness of research. Students are asked to respond using a 6-point Likert scale which ranges from, "strongly agree" to "strongly disagree." Examples of statements include the following: "Social workers should rely heavily on knowledge gained from research," "Social work research is not particularly useful to the practitioner providing direct services," and "Agency research tends to legitimate programs instead of providing corrective feedback" (Siegel, 1985, p. 41). Reliability tests were computed for each group of items and items that lowered the reliability were omitted. The first index assesses the student's opinion of the importance of research to the social work profession. Statements in this first index include seven philosophical and pragmatic statements (Kirk & Rosenblatt, 1981). The Cronbach's alpha reliability was .65. The second index assesses students' opinions on the usefulness of research and consists of five items. The Cronbach's alpha reliability for this index was .71. The third and final attitude index measures students' thoughts about the unbiased nature of research and consists of seven items. The Cronbach's alpha reliability was .78.

The values of negatively worded items were reversed so that a higher score would indicate a more favorable attitude toward research (Kirk & Rosenblatt, 1981).

*The Knowledge Index*

The knowledge index portion of the K-RRI is designed to assess students' knowledge of research and statistics. The initial version was a collection of 120 items which came from existing knowledge instruments, exams and discussions with research instructors. The authors created additional items and converted multiple choice items into true-false statements. Knowledge items showing insufficient variance of response (over 80% of respondents having the correct answer) were excluded from the inventory (Kirk & Rosenblatt, 1981). Statements which did not receive consensus on the correct answer from the four experts were dropped. Some additional statements were added to widen the coverage and all items were edited. The final result was 60 true-false items about research and statistics, comprising the section on research knowledge. The total knowledge score consisted of the sum of all correct responses. Correct responses were scored with a "1" and incorrect and incomplete responses were scored with a "0". Thus, an individual's score on the knowledge index could range from 0 to 60. The reported Cronbach's alpha for the index was .88 (Kirk & Rosenblatt, 1981).

*Support for the Use of the K-RRI*

The Kirk-Rosenblatt Research Inventory (K-RRI) was modified and used in both the pretest and posttest measures of attitudes about research and knowledge of research. As stated previously, Secret, Ford, and Rompf (2003) supported the use of the K-RRI for future studies. In addition Siegel (1985) wrote, "the K-RRI provides a uniform method

for measuring attitudes toward and knowledge about research before and after the research course to determine whether any changes occurred during the year" (p.41).

The K-RRI has been used before in the following studies and tests have been conducted to determine the reliability and validity of the instrument. Although the K-RRI was developed in 1977 the instrument has been utilized in numerous studies and used as recently as 2003 by Kelly and Bronstein (see Siegel, 1983, 1985; Olsen, 1990; Green, Bretzin, Leininger, & Stauffer, 2001; and Kelly & Bronstein, 2003).

*Description of the Research Self-Efficacy Scale (RSE)*

The RSE scale was identified as an additional measure of interest and added to the survey used in the current study. Holden et al. (1999) created the nine-item RSE to measure students' confidence in carrying out research activities. On the RSE scale students are instructed to rate themselves from 0 to 100. The following three anchors are provided: 0=cannot do at all, 50=moderately certain can do, and 100=certain can do. Participants in his original study included both BSW and MSW students, at a single university, who completed the scale before and after a one-semester research course. Psychometric tests were conducted and reported in the 1999 article. The authors incurred a 22% attrition rate from the pretest to the posttest; although, students dropping out did not differ significantly from those completing both tests. Testing for internal consistency revealed Cronbach's alphas of .94 at the pretest and posttest. The RSE was sensitive in detecting change in research self-efficacy over the semester. Individual items discriminated between levels of self-efficacy from the pre to posttest (Holden et al., 1999).

## Pilot Study

Pilot testing was conducted in order to improve the instrument and acquire a time estimate of how long it would take students to complete the survey. Advanced standing students enrolled in a four week summer session of research methods completed pre and posttests at the beginning and end of the research course. Sixteen matching pre and posttests were completed and returned to the researcher. It was determined that most students finished the survey in 10-12 minutes. Data from the pilot test was entered into SPSS to be analyzed. Frequencies and correlations were computed. From these results the decision was made to omit two knowledge items from the inventory. These two items had negative item-total correlations and little variance among student responses. In other words, if most students got the answer right the item was deemed too easy; and if most students got the answer wrong the item was too difficult. Thirty-two knowledge items were on the pilot test; the omission of two left 30 items on the knowledge inventory.

## Data Collection Procedures

### *Human Participant Considerations*

After the instrument was finalized the researcher sought approval by the Office of Regulatory Compliance at Colorado State University. Letters of agreement were obtained from program directors who had expressed interest in participating. A cover letter attached to the student survey, informed students of the purpose of the study and notified the students that their participation was strictly voluntary. Additionally, it was important for participants to know that the surveys would not influence students' course grades or student standing in any way, and that survey data would remain anonymous. This information was delivered via an in-class announcement that the faculty contact person

was provided with and read aloud to the class, before administering the survey. In order to maintain anonymity, survey participants were asked to create a personal identifier known only to the participant. This code was recorded on both the pretest and posttest allowing the researcher to match completed surveys. By maintaining anonymity the researcher hoped to decrease the pressure to respond in a manner which would be socially acceptable.

Although some demographic data were collected, no information that could potentially identify individual survey participants was shared with program faculty. A summary of demographics, used to describe the participants at each university is provided in Table 4. In addition, data from universities are grouped so that universities cannot be identified. Universities and social work programs are described, in general terms, in Table 1 and Table 2.

A faculty contact person was identified at each university. A letter, surveys with cover letters attached, and the script for the in-class announcement were mailed out to the faculty contact person at each university. This person administered the survey to students in a classroom environment. The survey was administered in a group setting to all participants at each university at the beginning of the foundation year (pretest). Completed pretests were returned to the researcher in a postage paid envelope. At the end of the foundation year, faculty contacts at each university were mailed the posttest along with cover letters and the same script used for the pretest. The posttest was administered to students at the end of the foundation year, and was again mailed back to the researcher in a postage paid envelope. For programs with only one research course the posttest was

administered in a course other than the research course. The pretest and posttest were identical.

## *Statistical Analysis*

As surveys were mailed back, the researcher recorded the number of surveys received from each social work program, and scored the knowledge inventory. The true or false knowledge inventory was scored by hand. To ensure accuracy a second rater also scored the knowledge inventory. After it was determined that all posttests had been received, the researcher used the unique identifier, created by the student, to match the pretest to the posttest. Pretest surveys with a matching posttest were given the same survey or case number. In order to store and analyze the survey data a SPSS (Statistical Package for the Social Sciences) database was designed. Survey numbers were used to catalog data in SPSS. Next, the data from all surveys were entered into the SPSS database.

Statistical analyses were conducted using SPSS in order to answer the research questions. In order to determine students' attitudes, knowledge, and research self-efficacy at the beginning of the foundation year (research questions 1, 2, and 3), descriptive statistics were calculated. To test for change over the foundation year on all outcome variables (research questions 4, 5, and 6), paired samples *t* tests were conducted. To test for differences between students who had one semester of research and those who had two semesters of research (research questions 7, 8, and 9), independent samples *t* tests were conducted. Finally, to determine if there was an intercorrelation between students' attitudes at the beginning of the year and knowledge change (research question 10), Pearson correlations were computed.

## Reliability and Validity

After the researcher had matched the pre and posttests using the unique identifier a second rater attempted to find more matches. From this effort, three additional matches were made. These additional matched sets were entered into the SPSS database before beginning data analysis.

The answer key for the knowledge inventory was obtained from one of the original authors. The true or false knowledge inventory was scored by hand and a second rater checked the scores for accuracy.

Cronbach's alpha was used to determine inter-item reliability for each scale and subscale at both the pretest and posttest. Alpha scores are presented in Table 5 with the number of items used in each scale. On the RSE scale, Cronbach's alpha scores of .93 (pretest) and .92 (posttest) were found. Similarly, Holden et al. (1999) reported a Cronbach's alpha score of .94 at both the pre and posttest. On the original K-RRI the author's reported an alpha score of .65 on the importance of research subscale and .71 on the usefulness subscale. Siegel (1985) also used the K-RRI and found an alpha score of .67 on the importance of research subscale, .62 on the usefulness of research subscale, and .84 on the total attitude scale. As can be seen from Table 5 these alphas are similar to those in the current study. The alpha levels for the knowledge scale and both knowledge subscales were low and do not compare well with those reported in previous studies. Those studies reported Cronbach's alphas ranging from .85 to .97. It is important to note that the number of knowledge items used in the current study was reduced by half. This may account for some of the difference in alpha scores on knowledge; as the alphas are highly affected by the number of items.

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Table 5

*Cronbach's Alpha and Number of Items on Each Scale*

| Scale | Cronbach's Alpha | Number of items |
|---|---|---|
| **Research Self-Efficacy** | | 9 |
| Pre | .93 | |
| Post | .92 | |
| **Importance of Research Attitudes** | | 7 |
| Pre | .70 | |
| Post | .68 | |
| **Usefulness of Research Attitudes** | | 5 |
| Pre | .63 | |
| Post | .59 | |
| **Total Attitudes** | | 12 |
| Pre | .75 | |
| Post | .77 | |
| **Statistics Knowledge** | | 13 |
| Pre | .37 | |
| Post | .40 | |
| **Research Methods Knowledge** | | 17 |
| Pre | .21 | |
| Post | .47 | |
| **Total Knowledge** | | 30 |
| Pre | .42 | |
| Post | .63 | |

## Summary

This chapter has detailed the current study's methodology. Data collection for this study spanned the academic year of 2007-2008. Surveys were administered to foundation year MSW students enrolled in five different social work programs in the United States. Students were recruited in the classroom, at the beginning and end of the year, to complete surveys measuring attitude, knowledge, and self-efficacy outcomes. The research self-efficacy scale (RSE) and a modified Kirk-Rosenblatt Research Inventory (K-RRI) were combined to create the survey instrument used in this study. The RSE was created by Holden, and his research group, to measure students' level of confidence to

complete nine research tasks (Holden et al.,1999). Students rated themselves on the scale

which spans from 0 to 100. The following three anchors are provided: 0=cannot do at all,

50=moderately certain can do, and 100=certain can do. The modified K-RRI measured

students' attitudes toward research on two subscales: importance of research and

usefulness of research. In addition, a 30-item true or false knowledge inventory measured

students' knowledge about research before and after the foundation year. Pilot testing of

the survey helped inform the researcher of improvements made to the final instrument

and established a time estimate for completion by the students. Pretests and posttests

were matched using a unique identifier which maintained students' anonymity. In order

to answer the research questions, data were entered into a SPSS database for data

analysis.

# CHAPTER 4: RESULTS

This chapter begins with a review of the methodology and description of the sample and participants. The results are presented by research question.

## Methodology Summary

Surveys were administered to foundation year MSW students enrolled in five different social work programs in the United States. Data collection for this study spanned the academic year of 2007-2008. Students were recruited in the classroom, at the beginning and end of the year, to complete surveys measuring attitude, knowledge, and self-efficacy outcomes. The research self-efficacy (RSE) scale and a modified Kirk-Rosenblatt Research Inventory (K-RRI) were combined to create the survey instrument used in this study. The RSE was created by Holden et al. to measure students' level of confidence to complete nine research tasks (Holden et al., 1999). Students rated themselves on the scale which spans from 0 to 100. The following three anchors are provided: 0=cannot do at all, 50=moderately certain can do, and 100=certain can do. The modified K-RRI measured students' attitudes toward research on two subscales: importance of research and usefulness of research. In addition, a 30-item true or false knowledge inventory measured students' knowledge about research before and after the foundation year. Pilot testing of the survey helped inform the researcher of improvements made to the final instrument and established a time estimate for completion by the students. Pretests and posttests were matched using a unique identifier which maintained

students' anonymity. In order to answer the research questions, data were entered into a SPSS database for data analysis.

## Sample and Participants

All five universities included in this study are public institutions. Table 1, in chapter 3, describes each university in terms of enrollment for fall of 2004, basic classification, enrollment profile, size and setting, and geographic region. The information on enrollment, basic classification, enrollment profile, and size and setting are provided by The Carnegie Foundation for the Advancement of Teaching. This information is used in this study for descriptive purposes only. While the sample is geographically diverse their Carnegie classifications are very similar; therefore, the sample cannot be generalized to all universities where MSW degrees are granted. Social work programs at all participating universities are accredited by CSWE and offer an advanced standing option. While the Carnegie Foundation provides specific enrollment numbers, care has been taken to ensure that individual universities cannot be identified in this profile. As a result, a more general enrollment range is provided in Table 1. The general geographic region illustrates the regional diversity of the sample throughout the United States.

Table 2, in chapter 3, provides a description of social work programs which participated in the study. The information provided in this table includes total number of MSW graduates per year, number of research courses taken during the foundation year, the percentage of applicants to admissions in the full time program, and the CSWE region. These characteristics are also provided for descriptive purposes except for the number of research courses taken during the foundation year (1 semester versus 2

semesters), which was used as an independent variable. Table 4 provides individual student demographic information for the students who participated in both the pretest and the posttest ($n=75$). The unit of analysis for this study is individual students who responded to the survey.

Results by Research Question

*(1) What attitudes do students have toward research at the beginning of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?*

In order to determine students' attitudes at the beginning of the foundation year, descriptive statistics were run on two attitude subscales: importance of research and usefulness of research and a total attitude score. Attitudes were measured using a 6-point Likert scale, with a response of 6 indicating more favorable attitudes toward research and 1 indicating less favorable attitudes toward research. In order to properly score the attitude index the value of 6 negatively worded items were reversed. In general, students' attitudes were on the positive side of the scale. When all 12-items were taken into account, the mean for the total attitude score was 4.39. Students' attitudes were somewhat more positive on the usefulness of research subscale with a mean of 4.75. When asked about the importance of research, there was a lower mean of 4.13. See Table 6 for means and standard deviations for both attitude subscales and the total attitude scale.

*(2) What knowledge do students have about research at the beginning of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?*

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In order to investigate student knowledge, students were asked to answer true or false to statements on a 30-item knowledge inventory. Scoring of the knowledge inventory consisted of each correct answer receiving a 1, each incorrect answer receiving a 0, and items left blank received .5. Items left blank received .5 because if the student had completed the item he or she would have had a 50/50 chance of guessing the correct answer. Note that blank items equaled .002% of the possible responses. There were no items left blank on the posttest knowledge inventory. A perfect score would be 30/30 or 100%. Descriptive statistics were run in order to determine what knowledge students had at the beginning of the foundation year. Mean scores presented in Table 6 indicate the percentage correct. Results indicated that students scored lower on the statistics subscale ($M$=54%) than the research methods knowledge subscale ($M$=67%). The mean for the total knowledge scale was 61% correct responses. See Table 6 for means and standard deviations for both knowledge subscales and the total knowledge scale.

*(3) What level of research self-efficacy do students have at the beginning of the foundation year?*

Students rated themselves close to the midpoint on research self-efficacy at the beginning of the year. The mean for research self-efficacy was 54.44 on a scale of 1 to 100. Table 6 presents the mean and standard deviation for the research self-efficacy scale.

Table 6

*Pretest Scores on Attitudes, Knowledge and Self-Efficacy Scales (N=106)*

| Scale | M | SD |
|---|---|---|
| Attitudes [a] | | |
|     Importance of Research | 4.13 | .76 |
|     Usefulness of Research | 4.75 | .75 |
|     Total | 4.39 | .64 |
| Knowledge [b] | | |
|     Statistics | 54% | .16 |
|     Research Methods | 67% | .12 |
|     Total | 61% | .11 |
| Research Self-Efficacy [c] | 54.44 | 19.30 |

[a] Mean of 6-point Likert scale. [b] Mean percentage of correct responses. [c] Mean score on scale of 0-100.

*(4) Is there a change in attitudes from the beginning to the end of the foundation year (including total attitude score and two attitude subscales: importance of research and usefulness of research)?*

In order to determine if there was a statistically significant difference in students' attitudes toward research over time, a paired samples *t* test was conducted. Results revealed a statistically significant difference over time on the importance of research *t* (74)=2.98, *p*=.004, *d*=.34. The effect size for this difference is small to medium (Gliner & Morgan, 2000). The total attitude score was also statistically significant between the pretest and posttest *t* (74)=2.49, *p*=.015, *d*=.29. The effect size for total attitude change over time is small. Means for both statistically significant differences were higher on the posttest. The paired samples *t* test indicated that attitudes on the subscale, usefulness of research, did not change enough over the academic year to be statistically significant. The means on this subscale are nearly equal, pre (*M*=4.76) and post (*M*=4.83). See Table 7 for means, standard deviations, and results of the *t* test.

*(5) Is there a change in knowledge from the beginning to the end of the foundation year (including total knowledge score and two knowledge subscales: statistics and research methods)?*

In order to determine if there was a statistically significant difference in student knowledge of research over time on knowledge, a paired samples *t* test was conducted. Results indicate a statistically significant difference over time on the research methods knowledge subscale *t* (74)=3.28, *p*=.002, *d*=.38. The effect size for this difference is small to medium. The total knowledge score was also statistically significant between the pretest and posttest *t* (74)=3.50, *p*=.001, *d*=.40. The effect size for total knowledge change over time is small to medium. Means for both statistically significant differences were higher on the posttest. The paired samples *t* test indicated that knowledge on the statistics subscale did not change quite enough over the academic year to be statistically significant. The means on the statistics subscale are pre (*M*=54%) and post (*M*=59%). See Table 7 for means, standard deviations, and results of the *t* test on knowledge subscales and total knowledge scores.

*(6) Is there a change in research self-efficacy from the beginning to the end of the foundation year?*

In order to determine if there was a statistically significant difference in students' research self-efficacy over time, a paired samples *t* test was conducted. Results show a statistically significant difference over time on the research self-efficacy scale *t* (74) =12.00, *p*=<.001, *d*=1.40. The effect size for this difference is much larger than typical (Gliner & Morgan, 2000). The mean for this statistically significant difference

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was higher on the posttest. See Table 7 for means, standard deviations, and results of the *t*

test on research self-efficacy.

Table 7

*Comparison of Pretest, Posttest and Gain Scores on Attitudes, Knowledge, and Research Self-Efficacy Scales (N=75)*

| Scale | M | SD | df | r | t | p | d |
|---|---|---|---|---|---|---|---|
| **Attitudes** [a] | | | | | | | |
| Importance of Research | | | 74 | .56 | 2.98 | .004 | .34 |
| Pre | 4.09 | .70 | | | | | |
| Post | 4.33 | .74 | | | | | |
| Change | .23 | .68 | | | | | |
| Usefulness of Research | | | 74 | .33 | .68 | .500 | .08 |
| Pre | 4.76 | .75 | | | | | |
| Post | 4.83 | .78 | | | | | |
| Change | .07 | .89 | | | | | |
| Total | | | 74 | .58 | 2.49 | .015 | .29 |
| Pre | 4.37 | .58 | | | | | |
| Post | 4.54 | .65 | | | | | |
| Change | .16 | .57 | | | | | |
| **Knowledge** [b] | | | | | | | |
| Statistics | | | 74 | .45 | 1.98 | .052 | .23 |
| Pre | 54% | .16 | | | | | |
| Post | 59% | .15 | | | | | |
| Change | 4% | .16 | | | | | |
| Research Methods | | | 74 | .42 | 3.28 | .002 | .38 |
| Pre | 67% | .11 | | | | | |
| Post | 72% | .14 | | | | | |
| Change | 5% | .14 | | | | | |
| Total | | | 74 | .52 | 3.50 | .001 | .40 |
| Pre | 62% | .11 | | | | | |
| Post | 66% | .12 | | | | | |
| Change | 5% | .11 | | | | | |
| **Research Self-Efficacy** [c] | | | 74 | .51 | 12.00 | <.001 | 1.40 |
| Pre | 53.41 | 19.64 | | | | | |
| Post | 77.26 | 13.28 | | | | | |
| Change | 23.85 | 17.27 | | | | | |

[a] Mean of 6-point Likert scale. [b] Mean percentage of correct responses. [c] Mean score on scale of 0-100.

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*(7) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' attitude change (including total attitude score and two attitude subscales: importance of research and usefulness of research)?*

In order to test for difference between students with one semester and two semesters of research coursework, independent samples *t* tests were performed. See In order to determine whether or not there was a difference between students with one semester of research compared to those with two semesters of research coursework an independent samples *t* test was conducted. Results indicate no statistically significant difference between the two groups gain scores. It is interesting to note that at the pretest there was no difference between the two groups on total attitude or total knowledge, however, the group with two semesters of research coursework did have a statistically significant higher mean on research self-efficacy than the one semester group.

Table 8 for means, standard deviations, and results of the *t* test for gain scores on the dependent variables. Results indicate no statistically significant difference between the two groups of students on any of the three attitude scales.

*(8) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' knowledge change (including total knowledge score and two knowledge subscales: statistics and research methods)?*

Students who had two semesters of research coursework showed a statistically significant difference on two knowledge scales: the statistics knowledge subscale $t\,(73) = -3.70$, $p=<.001$, $d=.93$ and total knowledge change $t\,(73) = -3.60$, $p=.001$, $d=.97$.

On both scales the group with two semesters had a statistically significant knowledge gain over the group with only one semester of research coursework. The effect size for the differences on both scales, using Cohen's *d* guidelines, is large to very large. Note that the difference between the two groups on the research methods scale was close to statistically significant ($p$=.08); it would be statistically significant if a one-tailed test (directional hypothesis) had been used. As well, the effect size for this difference was medium at $d$=.44.

*(9) Is there a difference between students who had two semesters of research and those who had one semester of research in terms of students' research self-efficacy?*

In order to determine whether or not there was a difference between students with one semester of research compared to those with two semesters of research coursework an independent samples *t* test was conducted. Results indicate no statistically significant difference between the two groups gain scores. It is interesting to note that at the pretest there was no difference between the two groups on total attitude or total knowledge, however, the group with two semesters of research coursework did have a statistically significant higher mean on research self-efficacy than the one semester group.

Table 8

*Comparison of students with 1 semester (n=55) and 2 semesters of research (n=20) on Attitudes, Knowledge, and Research Self-Efficacy Gain Scores*

| Scale | M | SD | df | t | p | d |
|---|---|---|---|---|---|---|
| **Attitudes** [a] | | | | | | |
| Importance of Research | | | 73 | -1.42 | .160 | .37 |
|   1 Semester | .17 | .70 | | | | |
|   2 Semester | .42 | .58 | | | | |
| Usefulness of Research | | | 73 | -.50 | .620 | .14 |
|   1 Semester | .04 | .92 | | | | |
|   2 Semester | .16 | .79 | | | | |
| Total Attitudes | | | 73 | -1.31 | .200 | .36 |
|   1 Semester | .11 | .57 | | | | |
|   2 Semester | .31 | .54 | | | | |
| **Knowledge** [b] | | | | | | |
| Statistics | | | 73 | -3.70 | <.001 | .93 |
|   1 Semester | 0% | .14 | | | | |
|   2 Semester | 14% | .18 | | | | |
| Research Methods | | | 73 | -1.80 | .080 | .44 |
|   1 Semester | 4% | .14 | | | | |
|   2 Semester | 10% | .13 | | | | |
| Total Knowledge | | | 73 | -3.60 | .001 | .97 |
|   1 Semester | 2% | .10 | | | | |
|   2 Semester | 12% | .11 | | | | |
| **Research Self-Efficacy** [c] | | | 73 | .36 | .720 | .09 |
|   1 Semester | 24.28 | 18.65 | | | | |
|   2 Semester | 22.67 | 13.10 | | | | |

[a] Mean gain score on 6-point Likert scale. [b] Mean percentage gain of correct responses. [c] Mean gain score on scale of 0-100.

*10) Is there a relationship between students' attitudes at the beginning of the foundation year and knowledge change?*

Pearson correlations were computed to determine if there was an intercorrelation between students' attitudes at the beginning of the year and knowledge change. Results revealed that there is no statistically significant relationships between students' attitudes,

(including total attitudes and the two attitude subscales, importance of research and usefulness of research) and to knowledge change over the academic year. Pearson correlations for the relationships between importance of research, usefulness of research and total attitudes to knowledge change were $r=.10$, $r=.08$, and $r=.11$, respectively.

*Additional Findings*

Unrelated to the research questions above, there were some interesting relationships between variables that are worth noting. First, relationships among the outcome variables were reviewed. Students who had high research self-efficacy scores at the posttest also had the most positive attitudes toward research at the posttest ($r=.31$). However, student knowledge at the posttest was not found to be related to research self-efficacy. A higher post knowledge score was related to more positive attitudes at the posttest ($r=.39$). Interestingly, the total knowledge change score was not related to research self-efficacy post or change score, or attitude post or change score.

Second, relationships between student characteristics and the outcome variables were reviewed. When considering these correlations only 4 out of 48 correlations were statistically significant and this may have been due to chance. Therefore the student demographic data in relation to the outcome variables did not lead to any findings worth pursuing.

Summary of Results

When reviewing the results of this study, it is important to note that students' attitudes at the beginning of the foundation year were favorable toward research. The mean for the total attitude score was 4.39 on a 6-point Likert scale indicating mild to moderately favorable attitudes toward research. The mean for the attitude subscale,

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usefulness of research was 4.75 while the mean for the attitude subscale, importance of research was 4.13. At the pretest student total knowledge scores revealed a mean of 61% correct responses. Students scored better on the research methods knowledge subscale, with a mean of 67% correct, than the statistics subscale, with a mean of 54% correct. In terms of research self-efficacy students at the beginning of the foundation year rated themselves close to the midpoint, with a mean of 54.44 on a scale of 1 to 100.

To summarize change over the foundation year, it is noteworthy that students' attitudes made a statistically significant improvement on both the importance of research subscale and total attitude scale. Effect sizes were small to medium on the importance of research and small on the total attitude scale. With regard to attitudes on the subscale, usefulness of research, there was a slight improvement over time; however, the increase was not enough to be statistically significant. Changes in knowledge improved on all three scales; however, only two were statistically significant: research methods subscale and total knowledge score. Effect sizes for both scales were small to medium. Again, there was a slight improvement on the statistics subscale, but not enough to be statistically significant. There was a statistically significant change in research self-efficacy over the foundation year with a larger than typical effect size.

When comparing students who completed one semester of research coursework versus those with two semesters of research there are interesting results. There were no statistically significant differences in attitudes or research self-efficacy. In terms of knowledge the group with two semesters of research made a statistically significant improvement on both the statistics knowledge subscale and the total knowledge scale with large to very large effect sizes on both scales. With regard to knowledge on the

research methods subscale, the difference between the groups was close to statistically significant and would be statistically significant if a one-tailed directional hypothesis had been used.

The final research question tested for an association between attitudes at the beginning of the foundation year and knowledge change. There were no statistically significant relationships between students' attitudes at the pretest and knowledge change across the foundation year.

# CHAPTER 5: SUMMARY AND DISCUSSION

## Summary

In training master's level social workers, the research curriculum continues to provoke tension. The best way to integrate the research curriculum has been explored quite extensively. In recent years, there has been less discovered about students' attitudes and knowledge surrounding the research curriculum. Many educators still assume that teaching research will be met with contention.

Social work educators, at all levels of social work training, still struggle with questions surrounding the role of research in social work (Austin, 1997; Fraser et al., 1991; Secret et al., 2003). Moreover, social work programs are left questioning what is required, regarding the research curriculum, to meet the Council on Social Work Education (CSWE) accreditation standards (Dietz, Westerfelt, & Barton, 2004). There are many broad questions pertaining to social work research which continue to go unanswered decade after decade. In 1991 the Task Force on Social Work Research made recommended changes to the research curriculum. It remains unclear if any recommendations have been acted upon, in an effort to improve the research curriculum. Still the importance of research to social work is recognized by CSWE and the National Association of Social Workers (NASW). To this end, some level of continued interest in the research curricula remains.

This study may make multiple contributions. The K-RRI and the RSE scale were used because of support in the literature for the use of each scale. In addition, the

literature supported a pretest-posttest design. Based on these recommendations, both of these design features were employed. The implications may contribute to the knowledge base of instructors teaching research in social work and related disciplines.

## Review of the Methodology

In this study foundation year MSW students enrolled in five different social work programs were asked to complete surveys in their research course. In the fall of 2007 students completed the pretest. In the spring of 2008 the same 75 students completed a posttest. The survey targeted outcomes pertaining to research attitudes, research and statistics knowledge, and research self-efficacy. The survey was pilot tested, using both pretest and posttest, on a group of advanced standing students enrolled in a summer research course. The pilot test helped the researcher with design of the final instrument and provided a time estimate for completion by the students. Surveys were administered in the classroom by the faculty contact person at each university. After all the surveys were returned to the researcher, pretests and posttests were matched using a unique identifier which maintained students' anonymity. In order to answer the research questions, data were entered into a SPSS database for data analysis.

## Summary of Results

When reviewing the results of this study it is important to note that students' attitudes at the beginning of the foundation year were favorable toward research. The mean for the total attitude score was 4.39 on a 6-point Likert scale indicating mild to moderately favorable attitudes toward research. The mean for the attitude subscale, usefulness of research, was 4.75 while the mean for the attitude subscale, importance of research, was 4.13. At the pretest, student total knowledge scores revealed a mean of 61%

correct responses. Students scored better on the research methods knowledge subscale, with a mean of 67% correct, than the statistics subscale, with a mean of 54% correct. In terms of research self-efficacy, students at the beginning of the foundation year rated themselves close to the midpoint with a mean of 54.44 on a scale of 1 to 100.

To summarize change over the foundation year, it is noteworthy that students' attitudes made a statistically significant improvement on both the importance of research subscale and total attitude scale (Table 9). Effect sizes were small to medium on the importance of research and small on the total attitude scale. With regard to attitudes on the subscale, usefulness of research, there was some apparent improvement over time; however, the increase was not enough to be statistically significant. Changes in knowledge improved on all three scales; however, only two were statistically significant: research methods subscale and total knowledge score. Effect sizes for both scales were small to medium. Again, there was some apparent improvement on the statistics subscale, but not enough to be statistically significant. There was a statistically significant change in research self-efficacy, over the foundation year, with a larger than typical effect size.

Table 9

*Summary of significant differences and effect size by outcome.*

| Scale | Pre-Post difference | Effect size [1] (Pre-Post difference) | 1 vs.2 semesters of research | Effect size [1] (1 vs.2 semesters) |
|---|---|---|---|---|
| Attitudes | | | | |
|    Importance of Research | * | Small/Medium | - | - |
|    Usefulness of Research | - | - | - | - |
|    Total | * | Small | - | - |
| Knowledge | | | | |
|    Statistics | - | - | * | Large/Very L |
|    Research Methods | * | Small/Medium | - | - |
|    Total | * | Small/Medium | * | Large/Very L |
| Research Self-Efficacy | * | Very Large | - | - |

* Statistically significant gain score; $p<.05$. [1] Based on Cohen's *d*.

When comparing students who completed one semester of research coursework versus those with two semesters of research, there are interesting results. There were no statistically significant differences in attitudes or research self-efficacy. In terms of knowledge the group with two semesters of research made a statistically significant improvement on both the statistics knowledge subscale and the total knowledge scale, with large to very large effect sizes on both scales. With regard to knowledge on the research methods subscale, the difference between the groups was close to statistically significant, and would have been statistically significant if a one-tailed directional hypothesis had been used.

The final research question tested for an association between attitudes at the beginning of the foundation year and knowledge change. There was no statistically significant relationship between students' attitudes at the pretest and knowledge change across the foundation year.

Discussion and Interpretation of the Results by Construct

Several conclusions can be drawn from this study that warrant consideration from social work educators and professionals. The results of the study were presented in chapter 4 and organized by research question. However, for purposes of the discussion, the separate constructs of attitudes, knowledge, and research self-efficacy will be the organizing units. Therefore, results for each research question will not be presented in chronological order as above. Results will be discussed by construct, followed by an exploration of the relationship of the current study to previous research and theory on each construct.

*Attitudes*

Results suggest that students' attitudes toward research at the beginning of the foundation year are generally positive. This is important because past research has indicated that social work students are reluctant learners when it comes to the research curriculum (Epstein, 1987; Forte, 1995; Green et al., 2001; Montcalm, 1999; Wainstock, 1994). However, it may be that faculty members wrongly assume students have, or will have, negative attitudes toward research. In studies where the students themselves are asked about their own attitudes, the outcome is more positive (Lazar, 1991). Lazar's study (1991) found that practitioners and faculty perceived students' attitudes to be less favorable than the students actually rated their own attitudes toward research. It could be that social work students are fulfilling the image or perpetuating a stereotype, that they should not like or be able to do research (Montcalm, 1999).

The results of the Kirk and Rosenblatt (1981) study had both similar and differing results to those in the current study. In the Kirk and Rosenblatt (1981) study positive

students' attitudes were correlated with the number of research courses students had taken. In the current study attitudes improved over the foundation year although the number of research courses (1 semester versus 2 semesters) did not make a significant difference in attitude change. It is noteworthy that where attitudes did not show a statistically significant increase, they held constant or made a slight increase. That is, students' attitudes did not diminish, either over time, or with more exposure to research. This finding contradicts Siegel's (1983) study which demonstrated that students' attitudes, on three subscales and the total attitude score, became worse after exposure to the research curriculum.

Research question ten focused on determining whether or not a relationship could be detected between attitudes at the beginning of the foundation year and knowledge change. This question was posed with the thought that perhaps students with poor attitudes toward research would learn less over the course of the foundation year. However, there was no statistically significant relationship found between attitudes at the beginning of the foundation year and knowledge change.

The work of adult learning theorist Knowles became influential during the 1980s with specific application to training in the professions (Coulshed, 1993). It has been well established that attitudes and other emotions influence learning (Knowles, 1990). Therefore, it is reasonable to think that the lack of a relationship could be due to a limitation of the knowledge inventory. It could be that so few students had poor attitudes at the pretest and therefore the mean on the attitude scale was not low enough to detect differences in knowledge learned based on the poor attitudes.

Knowles' work in adult learning theory suggests that negative emotion can be a barrier to learning (Hyduk & Large, 1999). A specific principle of learning from Knowles which addresses negative emotion is Motivation and Personality Theory. This principle states that the "anxiety level of the individual learner may determine the beneficial or detrimental effects of certain kinds of encouragements to learn" (p.68). In relation to the current study it is important to note that Knowles theory relates to the constructs of anxiety and fear which were not measured by the K-RRI attitude scales. Rather the K-RRI addressed students' orientation to the usefulness of research and importance of research.

*Knowledge*

It seems that the knowledge inventory was able to distinguish between the two types of knowledge—research methods versus statistics knowledge. The mean difference between the scores on the two subscales, at the pretest, was 13 percentage points. It is also interesting that the statistics subscale was the lower mean of the two scores. This finding is consistent with what the literature states about social work students' knowledge on statistics (Forte, 1995; Royse & Rompf, 1992).

In the original study using the K-RRI Kirk and Rosenblatt (1981) students had a score of 53% correct responses on the knowledge inventory. In the current study the mean percentage correct was 61% at the pretest. This difference may indicate that foundation year students are more knowledgeable than they were at the time the Kirk and Rosenblatt study was conducted.

One additional finding in the current study is similar to a finding in the Secret, et al. (2003) study. In the current study, a higher post knowledge score was related to more

positive attitudes at the posttest. Secret, et al. (2003) reported that as students' knowledge increased, fear about research was shown to decease. Although, the constructs are not exactly the same, there may be similarities that deserve further investigation.

Simon (1991) states, "Research by Knowles and Starr indicated that adult learners are more receptive to learning material that improves their job skills" (p.120). Coulshed (1993) has argued that by applying the principles of adult learning theory to social work, education practice itself may benefit. The utility of Knowles' theories are applied by research educators who allow students to become empowered by taking responsibility for their own learning. Examples of this are faculty who employ the use of learning contracts and mutual curriculum planning. The importance of learning in an environment of respect, and collaboration is emphasized (Coulshed, 1993). Recent studies examining student performance and effective teaching methods have stressed the importance of these same principles (Hyduk & Large, 1999; Kelly & Bronstein, 2003).

*Research Self-Efficacy*

The Research Self-Efficacy (RSE) scale is said to "assess social workers' confidence in their ability to complete specific research activities" (Holden et al., 1999, p.466). The results of the current study on the RSE scale are strikingly similar to the results of previous research. The RSE scale in the current study had similar Cronbach's alpha scores and similar change scores to several previous studies (Holden et al., 1999; Unrau & Grinnell, 2005). In the Holden et al. (1999) study, students' confidence, as measured by the RSE, was 53.3 at the pretest and 74.4 at the posttest; this equates to a change score of 21.1 points. The findings of Unrau and Grinnell (2005) were similar with students' RSE scores at the pretest averaging 53.4 points. At the posttest, 16 weeks later,

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students averaged 68.9, for a change score of 15.5 points. In the current study students started the foundation year at 53.4 and increased to 77.3 by the end of the academic year. That equals a gain of 23.8 points over the course of the foundation year. The results of these three studies are remarkably similar. Unrau and Grinnell (2005) write, "it seems that research instructors and students alike can expect research self-efficacy among students to increase an average of 20 points per course over a semester" (p.644). The wide range of responses is also worth noting. The standard deviation in the current study was between 13-20 points. This finding is also similar to both of the aforementioned studies indicating a wide range of self-confidence about preparedness among students and an educational challenge for the research faculty (Unrau & Grinnell, 2005).

In a very practical paper on the use of and participation in research by hospital social workers, Simon (1991) writes about the need for increased accountability and empirically based practice. However, she states that, "Many clinicians are hampered by doubts about their knowledge and skill in research" (p.118). These doubts are what researchers are interested in when speaking of self-efficacy. The issues of student anxiety and lack of practitioner use of research have both been attributed to feelings or doubts student hold about their ability to "do" research (Montcalm, 1999).

Based in social cognitive theory, the first notion of self-efficacy was written about by Albert Bandura in 1977. Bandura (1997) writes that, "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the course of action required to produce given attainments" (p.3). The theory of self-efficacy has been identified as a useful framework for guiding the direction of the research curriculum (Montcalm, 1999). "Bandura's theory suggests shifting the focus from generic notions about research's

importance and utility to perceptions students hold about their own research competencies and the outcomes they expect to accompany their personal involvement in research" (Montcalm, 1999, p.96).

## Recommendations

Incorporating research into the field practicum may be of interest to faculty. Horizontal integration of the social work research curriculum could be increased by incorporating research into the field practicum (Dietz, Westerfelt, & Barton, 2004; Reid, 1994). It would be ideal to ensure that field supervisors have good research skills themselves, and are using and doing research in their practice setting. In 1990 Fraser et al. noted that "practicum instructors are reportedly poorly prepared to supervise research and evaluation projects" (p. 99). This condition may persist today. Still, field agencies may benefit from an increased evaluation capacity brought about by students. In the age of accountability, agencies may appreciate involvement with students who are interested in conducting research.

The use of service-learning curriculum should be explored as a means of integrating the practice and research curriculum (Williams, 2002). Service-learning curriculum is distinguished from the field practicum based on one main feature. The guide in creating the field practicum are student learning objectives whereas with service-learning, the community or agency is responsible for communicating their objectives and the students are responsive to those objectives (Williams, 2002). Mutual learning will likely take place in this environment. Master's social work students, particularly in their second year of study, with support from faculty, are well positioned to be responsive to research needs at agencies. For example, an agency may have a management information

system in place, and may be collecting data but may not have the expertise to know how to utilize the data they are collecting. A student or group of students could meet with staff at the agency to help develop a plan for data use. Thus, creating a mutual benefit where the students are learning about research in an applied setting, and the agency is furthered by the students' knowledge regarding research.

The social work practice community can also influence the amount and type of research curriculum a social work program provides. Agencies can attribute value to research by hiring MSW graduates who demonstrate a high level of research competence. This influence might be felt by social work educators and students alike. In other words, if agencies were to require knowledge and use of research as a condition of employment, students and faculty may see a greater need for research in the curriculum (D.P. Valentine, personal communication, November 17, 2008).

Faculty who teach the research curriculum can facilitate student learning by engaging in self-disclosure and using real and practical research examples in their teaching. Researchers are not infallible and there is no one way to do research. Students may be empowered to both consume and produce research with the understanding that researchers make mistakes and that nevertheless, research is important.

The changes to both the field of evaluation research and technological advances in the last thirty years have been vast. Students today are more technologically savvy than they have ever been and the trepidation about computers and software that faculty witnessed in the 1980s and 1990s cannot be felt to the same degree as it was a few decades ago (V.V. Buchan, personal communication, November 3, 2008). We should revisit Epstein's famous 1987 quote. "No other part of the social work curriculum has

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been so consistently received by students with as much groaning, moaning, eye-rolling, hyperventilation, and waiver strategizing as the research course" (Epstein, 1987, p.71). Note that students born in 1987 are now of age to start applying to MSW programs. These students were likely raised feeling quite comfortable with computers and likely have an appreciation for evidenced-based practice and accountability. While research may still be among the most difficult curriculum to teach in many disciplines (Murtonen & Lehtinen, 2005), it seems that current technology and the climate of evaluation have made it more acceptable to students than what Epstein and others recalled at the time.

It is suggested that social work faculty seek to provide a positive learning environment surrounding the research curriculum. Faculty need to remember that research is important to the profession of social work and, therefore, social work students. Evidence regarding students' attitudes toward research is mixed and faculty can anticipate varying levels of student preparedness. Both faculty and students may benefit by attempting to set bias toward research aside. Moreover, faculty cannot continue to assume that social work students hold negative inclinations toward research.

## Suggestions for Additional Research

Based on Bandura's theory of self-efficacy, a next step would be to follow students with high and low RSE scores to investigate whether or not RSE correlates with utilization of research as professional social workers.

Much knowledge might be gained through a qualitative study. Interviews with students might enable researchers to have a deeper understanding of students' attitudes toward research and better aid social work faculty in modifying the curriculum structure. By interviewing students at select universities, we might gain a rich understanding of

what students think they need to know about research in order to practice social work. It would be helpful to know what students report as influencing their perceptions of research. For example, findings from this study suggest that the amount of research coursework does not influence students' RSE scores. It would be interesting to learn from students what they feel might influence their confidence regarding research. Knowing what influences students may give researchers direction in designing future studies. An understanding of faculty perceptions of the research curriculum may also be of interest.

Another research task force may be in order. There remains a need to determine the content of the research curriculum, how the curriculum is being taught, and whether or not, research findings are being used by social workers. Unrau and Grinnell (2005) suggest "a fully articulated policy statement from CSWE that delineates minimum-level research competencies for BSW and MSW students is needed in order to provide a benchmark from which to measure and assess research self-efficacy, as well as research competence" (p.646). This would be a start, followed by the difficult task of implementation of the curriculum, continued assessment of student learning, and utilization of assessment data to refine the curriculum. Embedded in these tasks there is room for a great deal of exploration.

*Suggested Modifications to the Instrument*

One suggestion regarding the instrument may be to modify the knowledge inventory with a multiple choice format. On the true or false items it is difficult to determine student knowledge from the 50/50 chance that students have at getting the right answer. In other words, with true or false items, it is difficult to determine the extent

to which students may be guessing and choosing the correct answer by luck. Replacing or incorporating some multiple choice questions may be a way to resolve this issue.

As noted in the introduction, the extent to which qualitative methods are being taught in an introductory research course is uncertain. Still, it would be appealing to create additional questions on both the knowledge and attitude scale to include qualitative methods and a constructivist paradigm.

## Limitations

While this study accomplished the task of investigating multiple social work programs, the universities which participated in the final sample were similar based on Carnegie classifications. Therefore, this study is not able to generalize to all social work programs. While differences were detected between groups with one semester or two semesters of research on the knowledge inventory, it is difficult to say whether or not the amount of research coursework was the only contributing factor to these differences. In other words, there are a number of extraneous variables such as quality of instruction, teaching methods, and experience in students' field placements that may have contributed to knowledge gain over the two semesters. It is also important to state that only one program comprised the two semesters of research coursework group, which was compared with four programs, where students had one semester of research coursework. Finally, this study did not attempt to control for differences in curriculum or teaching methods between social work programs.

## Summary and Conclusion

This study investigated student outcome variables related to the social work research curriculum. The researcher sought to understand students' attitudes toward

research, research knowledge acquisition, and research self-efficacy. Foundation year MSW students enrolled at five participating social work programs, responded to a self-report survey. Students were asked to complete a modified survey which included items from the K-RRI and RSE scale. Pretests were administered at the beginning of the foundation year and posttests were administered at the end of the foundation year. Data collection for this study spanned the academic year of 2007-2008. Surveys were matched using a unique identifier that allowed the researcher to maintain anonymity of individual students. The final sample included 75 pre and posttest matches. Self-report responses were analyzed, using both descriptive and inferential statistics, to answer ten research questions.

Results suggest that students' attitudes at the beginning of the foundation year were favorable toward research. The mean for the total attitude score was 4.39 on a 6-point Likert scale indicating mild to moderately favorable attitudes toward research. The mean for the attitude subscale, usefulness of research, was 4.75 while the mean for the attitude subscale, importance of research, was 4.13. In terms of research knowledge, at the pretest, student total knowledge scores revealed a mean of 61% correct responses. Students scored better on the research methods knowledge subscale, with a mean of 67% correct, than the statistics subscale, with a mean of 54% correct. On research self-efficacy, students at the beginning of the foundation year rated themselves close to the midpoint with a mean of 54.44 on a scale of 1 to 100.

To summarize change over the foundation year, it is noteworthy that students' attitudes made a statistically significant improvement on both the importance of research subscale and total attitude scale (Table 9). Effect sizes were small to medium on the

importance of research and small on the total attitude scale. With regard to attitudes on the subscale, usefulness of research, there was a slight improvement over time; however, the increase was not enough to be statistically significant. Changes in knowledge improved on all three scales; however, only two were statistically significant: research methods subscale and total knowledge score. Effect sizes for both scales were small to medium. Again, there was a slight improvement on the statistics subscale, but not enough to be statistically significant. There was a statistically significant change in research self-efficacy, over the foundation year, with a larger than typical effect size.

When comparing students who completed one semester of research coursework versus those with two semesters of research, there are interesting results. There were no statistically significant differences in attitudes or research self-efficacy. In terms of knowledge the group with two semesters of research made a statistically significant improvement on both the statistics knowledge subscale and the total knowledge scale, with large to very large effect sizes on both scales. With regard to knowledge on the research methods subscale, the difference between the groups was close to statistically significant, and would have been statistically significant if a one-tailed directional hypothesis had been used.

The final research question tested for an association between attitudes at the beginning of the foundation year and knowledge change. There was no statistically significant relationship between students' attitudes at the pretest and knowledge change across the foundation year.

A number of recommendations are made based on the findings of this study. Incorporating research into the field practicum may continue to be of interest to faculty.

Field agencies may benefit from an increased evaluation capacity brought about by students. Also, the use of service-learning should be explored as a means of integrating the practice and research curriculum (Williams, 2002). The social work practice community can also influence the amount and type of research curriculum a social work program provides. Agencies can attribute value to research by hiring MSW graduates who demonstrate a high level of research competence. The changes to both the field of evaluation research and technological advances in the last thirty years have been vast. Both faculty and students may benefit by attempting to set bias toward research aside. Moreover, faculty cannot continue to assume that social work students hold negative inclinations toward research. Finally, another research task force may be in order. There remains a need to determine the content of the research curriculum, how the curriculum is taught, and whether or not research findings are used by social workers.

There are a number of extraneous variables such as quality of instruction, teaching methods, and experience in students' field placements that may have contributed to knowledge gain over the two semesters. This study did not attempt to control for differences in curriculum or teaching methods between social work programs.

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# APPENDIX A: FINALIZED INSTRUMENT

April 7, 2008


Dear MSW Student,


This is a follow-up questionnaire about your opinions and knowledge about research. The questionnaire is part of my dissertation research titled: Master's of Social Work Student Knowledge and Attitude Outcomes related to Research Curriculum. The main purpose of my research is to assess the impact of the foundation year master's degree research curriculum.

In order for you to remain anonymous, I will need you to complete a code as described on the next page so that I can match the questionnaire you are completing now with the one you completed earlier. The questionnaire will likely take you 15-20 minutes to complete. There are no known risks or benefits to you by taking this questionnaire. By conducting this study we are hoping to gain a better understanding of how the social work research curriculum impacts MSW students. Your willingness to complete it is completely voluntary. Your individual responses are anonymous and will not be scored by anyone other than the researchers at Colorado State University.

Thank you very much for you cooperation. If you would like to talk with us about this study, we would be happy to do that. Our contact information is provided below. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Human Research Administrator, at 970-491-1655.

Best wishes as you continue toward the completion of your MSW degree!

Sincerely,


Helen Holmquist-Johnson, MSW
Co-Principal Investigator
School of Social Work
21 Education Building
Colorado State University
Fort Collins, Colorado  80523-1586
(970) 491-2088
Hjohnson@cahs.colostate.edu

Vicky Buchan, Ph.D, Professor
Principal Investigator
School of Social Work
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**General Instructions:**
This is a voluntary, anonymous survey. Although we do not want to know who you are, we do want to compare your responses now with your responses later. Therefore, we need a number that only you will recognize, but that when you use it – we will be able to match your initial answers with your subsequent answers. **Therefore, we want you to create your own identification number.**

**Personal Identification Number Instructions:**
You will do this by filling in the answers to the following questions in the spaces provided below. Please print your answers clearly.

1. Write the **first two letters** of your **mother's first** name in the spaces below.

   _____ _____

2. Write the two digit **day** of your birth (not the month) in the spaces below. (i.e. 04 for the 4th day of October.)

   _____ _____

3. Write the **last two digits** of **your** most commonly used phone number.

   _____ _____

4. If you were born **during or before 1980** (1980, 1979, 1978…) **write a 1** in the space below or if you were born **after 1980** (1981, 1982, 1983…) **write a 2** in the space below.

   _____

# Research Self-Efficacy Scale

**Instructions:** We want to know how confident you are, in your ability to perform specific social work tasks. After you consider each task, please rate your confidence in your ability to perform that task successfully, by **circling** the number from 0 to 100 that best describes your level of confidence. What we mean here by *successfully*, is that *you would be able to perform the specific task* in a manner that a social work supervisor would consider excellent. The phrases above the numbers [*0 = Can not do at all; 50 = Moderately certain can do; and 100 = Certain can do*] are only guides. You can use these numbers or any of the numbers in between to describe your level of confidence. **We want to know** *how confident* **you are that you could successfully perform these tasks today.**

| *How confident are you that you can. . . .* | *Cannot do at all* | | | | *Moderately certain can do* | | | | | | *Certain can do* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| a. do effective electronic database searching of the scholarly literature? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| b. use various technological advances effectively in carrying out research (e.g., the Internet)? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| c. review a particular area of social science theory and research, and write a balanced and comprehensive literature review? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| d. formulate a clear research question or testable hypothesis? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| e. choose a research design that will answer a set of research questions and/or test a set of hypotheses about some aspect of practice? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| f. design and implement the best sampling strategy possible for your study of some aspect of practice? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| g. design and implement the best measurement approach possible for your study of some aspect of practice? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| h. design and implement the best data analysis strategy possible for your study of some aspect of practice? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| i. effectively present your study and it's implications? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

# Kirk-Rosenblatt Research Inventory, Revised

## Your Opinions

**Instructions**: Below are some statements about research and social work. There are no right or wrong answers. We are interested in your opinions. Please circle the number that best indicates your opinion about each statement. If you feel that you do not have an opinion about a particular item, please try to select either "mildly agree" or "mildly disagree".

|  |  | Strongly Disagree | Moderately Disagree | Mildly Disagree | Mildly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| 1. | Social work research is not particularly useful to the practitioner providing direct services. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | In general, I am not persuaded that scientific research generates useful social work knowledge. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | Social workers should rely heavily on knowledge gained from research. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | Social work should be more science than art. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | I think that a major part of my professional education should consist of research training. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | In my opinion, research findings have limited applicability to complex practice situations. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | Program administrators should be required to establish research units to evaluate their program's effectiveness. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | I feel that social workers should keep abreast of research in their field. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | The continuation of a social work program should be contingent on effectiveness demonstrated by research. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | Limited agency resources should not be spent to pay for evaluative research. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. | Generally, a researcher's interests are not related to the practice needs of social work. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | Research is too time-consuming to use in practice. | 1 | 2 | 3 | 4 | 5 | 6 |

# Research Information

**Instructions**: This section contains statements about quantitative research and statistics. Read each item carefully and indicate if you think the statement is true or false. Please try to answer all the items—it is OK if you need to guess. Circle T if you think the statement is True or circle F if you think the statement is False.

| 1. | T | F | A general characteristic of scientific knowledge is that it is open to modification. |
|----|---|---|---|
| 2. | T | F | When two variables are highly correlated, one of them causes the other. |
| 3. | T | F | A measure that does not measure what it is supposed to has poor validity. |
| 4. | T | F | Quasi-experimental designs have limited applicability to social welfare research. |
| 5. | T | F | An independent variable is the factor which is affected by a treatment. |
| 6. | T | F | Type I and Type II errors refer to errors in accepting or rejecting the null hypothesis. |
| 7. | T | F | A one-tailed test is appropriate when the investigation begins with a directional hypothesis. |
| 8. | T | F | The major advantage of mailed questionnaires is the generally high response rates. |
| 9. | T | F | The examination of public and private archival records is an example of an unobtrusive measure. |
| 10. | T | F | In survey interviewing, a good technique for putting interviewees at ease is for the interviewer to talk about his/her own opinions. |
| 11. | T | F | Three criteria for determining causality are appropriate time-order of the variables, the existence of co-variation, and lack of spuriousness. |
| 12. | T | F | A correlation coefficient of -.68 is weaker than a correlation coefficient of +.50. |
| 13. | T | F | Tests of statistical significance indicate how important the finding is. |
| 14. | T | F | A negative correlation between height and weight means that heavy people tend to be tall. |
| 15. | T | F | Stratified samples are non-probability samples. |
| 16. | T | F | The individual is the usual unit of analysis in most survey research studies. |
| 17. | T | F | If a measuring instrument produces the same result on two administrations to the same group, it is a valid measure. |
| 18. | T | F | Chi-square is a statistical procedure for comparing the means of two groups. |
| 19. | T | F | An experimental group is a group whose characteristics are studied to predict reliability. |

| 20. | T | F | A null hypothesis is a hypothesis that cannot be tested. |
|-----|---|---|---|
| 21. | T | F | To measure something it must be directly observable. |
| 22. | T | F | A statistically significant relationship is strong enough to be substantively meaningful. |
| 23. | T | F | In a time-series design the subject serves as his/her own control. |
| 24. | T | F | Inter-rater agreement is one way to assess reliability. |
| 25. | T | F | In a normal distribution, the mean, median, and mode are the same. |
| 26. | T | F | The statistical concept of "power" refers to the ability of a statistical method to reject the null hypothesis when it ought to be rejected. |
| 27. | T | F | The median is defined as the sum of scores divided by the number of scores. |
| 28. | T | F | In the classic experimental research design, the control group is exposed to a controlled stimulus while the experimental group is not so exposed. |
| 29. | T | F | The plus or minus sign of a correlation coefficient indicates the strength of the relationship. |
| 30. | T | F | The decision to use a one-tailed test is made after the data are collected and analyzed. |

## Demographics

**Instructions**: Please write your answers directly on this questionnaire.

1. Are you a part-time (PT) or full-time (FT) student?   PT     FT

2. Gender:   Male or  Female

3. What was your undergraduate GPA _____

4. What was your undergraduate major? _____

5. Do you have experience being a research assistant?  Yes   or   No

Please indicate the number of years you have been employed in social work, **if none please write a '0'.**

6. Number of years of **part-time paid** employment in social work: _____ years

7. Number of years of **full-time paid** employment in social work: _____ years

## Thank you very much for completing this questionnaire!

# APPENDIX B: INITIAL CONTACT LETTER

May 15, 2007


Dear [Program Director Name],


Hope you are doing well! We have the opportunity to undertake some research related to an aspect of the MSW curriculum that has not recently been investigated. This opportunity is presented due to the interest of the Ph.D. student signed below. This research project aims to measure foundation year MSW students regarding their research knowledge and attitudes and research self-efficacy. Helen's experience with teaching research for a number of years has peaked her interest in student outcomes surrounding the research sequence.

We are contacting you because your MSW program matches our design criteria for the proposed research project. The research proposal, as approved by her committee, sets the following criteria for participating programs: accredited combined BSW/MSW schools that do not offer a doctoral program in social work. More specific information, including research questions, is provided in the attached proposal brief.

If possible, we would like to identify a faculty member teaching research that would be willing to sponsor the research locally by asking students to complete the instrument. In addition, we will collect information by telephone from the identified faculty sponsor regarding the research curriculum your program offers. We would be interested in administering the pretest at the beginning of the fall semester or quarter 2007 and the posttest at the end of spring in 2008. Once the research findings are known each program will receive feedback on their student outcomes as well as cumulative comparisons with all participating programs.

I hope that you are able to assist Helen with this research project. We believe this research will address gaps in the literature, helping us to make the research curriculum more relevant to future social work practitioners. If you are willing to participate or would like more information about this study please call or email me by May 31, 2007.

Best regards,


Deborah P. Valentine, MSSW, Ph.D.          Helen Holmquist-Johnson, MSW
Director and Professor                      Research Associate
School of Social Work                       School of Social Work
Colorado State University                   Colorado State University
127 Education Building                       21 Education Building
Fort Collins, CO.   80523-1586              Fort Collins, CO.   80523-1586
(970) 491-1893                              (970) 491-2088
Deborah.Valentine@colostate.edu            Hjohnson@cahs.colostate.edu

# APPENDIX C: EXAMPLE LETTER OF AGREEMENT

*Today's Date*

To the Human Research Committee
HRC Administrator
Regulatory Compliance
321 General Services Building
Campus 2011
Colorado State University
Fort Collins, CO  80523

The purpose of this letter is to communicate our willingness to cooperate with the research project proposed by Helen Holmquist-Johnson and Dr. Vicky Buchan at Colorado State University, School of Social Work.

We at _____ School of Social Work are **familiar with the scope of the project** titled:  Master's of Social Work Student Knowledge and Attitude Outcomes related to Research Curriculum as presented in the dissertation brief we received.

We are **satisfied that the students involoved in this research project will be adequately protected** following the protocol outlined in the dissertation proposal.

We understand that the students **participation is completely voluntary.**

**We understand (what our involvement will entail)** that we will receive a package containing: surveys with cover letters and a script detailing the protocol to be carryed out. We will administer these surveys to those  students who are willing to participate. We will mail the completed surveys back to the investigators in the stamped addressed manila envelopes provided by the investigators.

*Signatures*

*Please sign and mail two copies of this letter to:*

Helen Holmquist-Johnson, MSW
Co-Principal Investigator
School of Social Work
21 Education Building
Colorado State University
Fort Collins, Colorado  80523-1586
Hjohnson@cahs.colostate.edu

**APPENDIX D: RECRUITMENT MATERIAL-IN-CLASS ANNOUNCEMENT**

*In-Class Announcement: To be read aloud before administering the survey in class.*

I am going to pass out a questionnaire about your opinions and knowledge about research. This study is a part of dissertation research being conducted at Colorado State University. The title is: Master's of Social Work Student Knowledge and Attitude Outcomes related to Research Curriculum. The main purpose of this research is to assess the impact of the foundation year master's research curriculum.

At the end of your foundation year, you will be asked to complete another questionnaire. Because of this, you will need to complete a code as described on the questionnaire being passed out. This is so the researcher can match the questionnaire you are completing now with the one you will complete later. The questionnaire will likely take you 15-20 minutes to complete. There are no known risks or benefits to you by taking this questionnaire. Your willingness to complete it is completely voluntary. Your individual responses are anonymous and will not be scored by anyone other than the researchers at Colorado State University.

If you would like to contact the researchers you are welcome to do that. Their contact information is provided on the cover letter.

Thank you very much for you cooperation!