Advancing Social Work Practice Research Education –

An Innovative, Experiential Pedagogical Approach

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Abstract

Achieving practice research competency is an essential pillar of social work practice. However, research material is often associated with dry lectures and incomprehensible statistical applications that may not reflect real life issues. Teaching research course is often antithetical to the pedagogical approach commonly used in social work education, which engages students in practical applications of real life situations with case examples. This paper described and evaluated six sets of experiential class and field activities designed to increase graduate level social work students' competencies of practice research. These activities included: (1) formulating a practice-based research topic; (2) using assessment templates for critical evaluation of published research; (3) learning single-system research design; (4) conducting agency research and evaluation field assessment; (5) designing and executing a practice-focused class study project; and (6) presentation and dissemination of research findings. An online course evaluation was administered with altogether 63 students in 2 Foundation Research and 2 Advanced Research classes to elicit both their qualitative feedback and quantitative ratings of their attainment of research competencies. The instructor's assessment of individual student performance using a grading rubric helped determine their level of attainment of course competences. Findings suggest several critical elements of this pedagogical approach. Students learn about real-world research issues through a case-based learning approach. Both students and the instructor involve in a collaborative learning process. Finally the instructor selects context-specific cases for class discussion and activities so that students see the connection of social work research to day-to-day practice contexts.

Keywords: Practice Research, Social Work, Pedagogy, Experiential Learning, Case Studies

1. Introduction

Achieving practice-based research competency is an essential pillar of social work practice. However, learning research has not been a favored course in social work education. The research content is often not taught from a social work practice orientation and course material is often associated with dry lectures and incomprehensible statistical applications that may not reveal real life issues (Csiernik, Birnbaum, & Pierce, 2010). Research skills are seen as series of routine, uninteresting processes engaged by researchers and statisticians: problem definition, literature review, research design, data collection and analysis, and reporting and dissemination of knowledge and findings (Csiernik et al., 2010). Teaching research course is often antithetical to the pedagogical approach generally used in social work education, which engages students in practical applications of real life situations with case examples (Csiernik et al., 2010). This paper describes a novel approach which taught practice research and introduced a range of class and field activities in a 2-semester social work research courses, including case studies, storytelling, field surveys, agency interviews, and critical reflection activities. These activities were designed to increase graduate level social work students' competencies of practice research. A range of educational tools and strategies were presented to help enhance teaching effectiveness and evaluate the extent of students' attainment of practice research competencies. These tools included: the use of guided discussion, interview questionnaire, assignment elements and instructions, and grading rubrics.

2. Literature Review

2.1 Social Work Practice Research – Definitions, Issues, and Opportunities

Social workers have a professional responsibility to generate and use research in practice. Social workers' ability to

engage in research-informed practice is regarded as a core competency by many social work professional bodies (Fouché & Bartley, 2016). The Council on Social Work Education (CSWE) Educational Policy and Accreditation Standards (EPAS) core competencies include equipping students to be able to engage in research-informed practice and practice-informed research (CSWE, 2015). Social workers need to learn different research methods and their respective roles in advancing the knowledge base of social work and in evaluating their practice. Specifically, social workers learn how to use practice experience and theory to inform scientific inquiry and research, apply critical thinking to engage in analysis of research findings, and use and translate research evidence to inform practice, policy, and service delivery (CSWE, 2015).

There is a growing interest in defining and utilizing practice research in social work. The interest ranges from a focus on specifying models of practice research (practitioner oriented, method oriented, democratic and generative model), (Julkunen, 2011), to exploring the process of building bridges between practice and research (Uggerhøj, 2011a, 2011b), and to understanding the role of human service organizations in building "knowledge sharing systems" to support evidence-informed practice and in promoting practice-based research (Austin, 2012, p.2). Practice-based research is defined as the practitioner's "use of research-inspired principles, designs and information gathering techniques, within existing forms of practice to answer questions that emerge from practice in ways that inform practice" (Epstein, 2001, p. 17). According to the Salisbury Statement on Practice Research (Salisbury Forum Group, 2011, p. 5),

> [Practice research] is about identifying effective and promising ways in which to help people; and it is about challenging troubling practice through the critical examination of practice and the development of new ideas in the light of experience…It is an inclusive approach to professional knowledge that is concerned with understanding the complexity of practice alongside the commitment to empower and address social justice issues, through practice. Practice research involves the generation of knowledge of direct relevance to professional practice and therefore will normally involve knowledge generated directly from practice itself in a grounded way.

The goal to integrate research and practice in social work is to engage practitioners in their own efforts to produce practice-relevant knowledge (Epstein, 2009). Practice-based research was considered as "a practice-knowledge-generating strategy that unobtrusively applies research concepts, methods, and analogs within current forms of practice" (Epsetein, 2009, p. 219). Practice research can be conceived as an iterative process of reflection, critical analysis, and collective engagement (Julkunen, 2011). Flyvbjerg (2001) argues that practice research focuses on practical activities that can generate knowledge about everyday practices and involves building upon case examples and their contexts. Practice research reflects and emphasizes the relationship and interactions between researchers, practitioners, and service users where persons with common understandings, different interests, and levels of influences are engaged in a collaborative process (Epstein et al., 2015; Julkunen & Uggerhoj, 2016). It is a participatory process aimed to develop practice while recognizing and respecting different types of expertise among the key stakeholders. To achieve these goals, Julkunen (2011) suggests a more cooperative inquiry approach in which practitioners and researchers engage in collaborative action and research.

There are barriers to effective collaboration between researchers, practitioners, agency managers, and service users in practice research. Epstein et al. (2015) name several of these barriers including managerial interest in the role of practice research in producing evidence to improve practice, unequal relationship between practitioners and researchers in addressing practice improvement, and the perceived gap between evidence-based practice and evidence-informed practice. While both practice and research knowledge are valued, practice research is open and inclusive instead of closed and exclusive (Uggerhøj, 2011b). It is focused on knowledge production and learning processes in social work practice and research. Practice research in social work is characterized as being capable of simultaneously shaping or being shaped by practice and is a research field linked directly to practice; and its scope and focus are defined by the breadth of life (Uggerhøj, 2011b). Thus, researchers need to establish a close partnership with management, practitioners, and service users in the design of research projects and in the data collection process by including practitioners and users in the process.

In recent decades, practice has been confronted with increasing demands to show outcomes. Documentation, intervention results, and evidence-based practice have become a central part of social work. The focus is to produce more 'new' knowledge derived from locally based research and evaluation and cultivate more interest in knowledge-based development of social work as a profession (Uggerhøj, 2011b). A key contribution of practice research is the development of research capabilities among social workers. There has been a considerable amount of interest among social work students in studying and improving professional practice. Many social work students work while they are studying, and thus research questions can arise from their practice. They are encouraged to

undertake empirical studies on research problems that have emerged in their professional practice. Social workers often bring a different perspective to research and are expected to integrate their understanding of practice modalities with their appreciation of research methods and to integrate the service user in research process (Austin & Isokuortti, 2016). Given the continuing interest in preparing future practitioners to integrate practice and research in order to become more research minded, and for researchers to become more practice minded (Austin, 2012, Epstein, 2009; Shaw, Lee, & Wulczyn, 2012), practitioners will learn to become applied researchers.

2.2 Teaching Practice Research in Social Work – Barriers and Outcomes

Social work educators face several challenges when they teach practice research to students, including tensions between the goals of research and practice, challenges in capacities and perceived capabilities to teach research, and the substantial lack of student interest in acquiring competencies related to research methods (Adam, Zosky, & Unrau, 2004; Orme & Powell, 2008). There has been much skepticism about the utility of academic research in social work and it stems from attempts by researchers to maintain research as an academic field independent of practice (Uggerhøj, 2011a). The relationship between research and practice and professional social work identity remained unclear for many social work students. Research was regarded as "being too difficult, too time-consuming, and too far removed from the "real" work done by practitioners in the field" (Fouché & Bartley, 2016, p. 73). While many students recognize and acknowledge the importance of a scientific knowledge base for the profession and of research as a way to achieve it, they are skeptical about its practical utility along with some resistance towards actively embracing the integration of research and practice (Berger, 2002; McCrystal & Wilson, 2009). Few are enthusiastic about learning and applying research skills.

Many social work students are scared of taking research courses. Epstein (1987) describes his students as "research reluctant" and observes, "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 course" (p. 71). Studies have suggested that MSW students are anxious and insecure in relation to research and statistics coursework and they tend not to conduct or utilize research in practice when they enter into the work force (Adam et al., 2004). For many social work students, "research is the curricular content area that evokes the greatest amount of anxiety and the least sense of confidence" (Adam et al., 2004, p.2). Green, Bretzin, Leininger, and Stauffer (2001) compared the self-reported research anxiety, computer anxiety, and research orientations of social work, psychology, and business students, and found that social work students reported more research and computer anxiety than both psychology and business students and they also generally believed that research was less important to their profession.

Students may exhibit poor performance in social work courses that focus strictly on learning quantitative research methods in a didactic manner and as a result may see limited relevance for research in their practice (Adam et al., 2004; Green et al., 2001). Research was seen as a separate and discrete process in which some practitioners may engage in their own time, or to gain postgraduate qualifications (Harder, 2010). Students appeared reluctant to engage in research, and particularly to develop data analysis skills (Harder, 2010; Shaw et al., 2012). Social work has been identified as having a research capacity deficit in both research production and its utilization by practitioners (Orme & Shemmings, 2010). Social workers consider the formal-analytic tools such as single-system research designs, rapid assessment instruments, procedural steps in evidence-based practice, and computer software applications as the least helpful tools for self-monitoring the effectiveness of their interventions whereas the informal-interactive tools of clinical supervision, consultation with colleagues, use of client feedback, and clinical experience have been identified by them as among the most helpful tools for self-monitoring the effectiveness of their practice (Davis, Dennis, & Culbertson, 2015).

2.3 Models for Teaching Practice-Based Research in Social Work

According to MacIntyre and Paul (2013), the main goals of teaching research include: developing awareness of research and its role in promoting effective practice; gaining knowledge and an understanding of research strategies and skills; and learning to use such knowledge to make critical use of research studies. To accomplish these goals, Hardcastle and Bisman (2003) describe three primary models for teaching research content in social work education: (1) the Educated Consumer of Research (emphasis on teaching critical thinking skills and for helping students to acquire capabilities to analyze social work research literature); (2) Practitioner Scientist (focus on teaching students to become research scientists, to approach intervention as a research endeavor, and to see research as an opportunity for social science knowledge building); and (3) Research as Practice Methodology (focus on critical thinking and an appropriate use of research methodologies to be a better, more capable practitioner). Cameron and Este (2008) suggested two activities to enhance research education at the graduate social work level: (a) the integration of practice-based research into research education and (b) put an emphasis on the importance of research in promoting

effective social work practice. They identified two approaches for instructors to consider, namely, an increased emphasis on practical applications, and disseminating student-generated findings and reports. Healey (2005) illustrated four different approaches identified in a "research–teaching nexus" (p. 69) and suggested that social work like other disciplines engaged in professional education should be research process/student focused with the curriculum emphasizing students' inquiry-based learning, as compared with other approaches that are based on research content and teacher-focused. Thus the pedagogical challenge in designing an effective and engaging social work research curriculum is to shift the focus from content-based and teacher-focused learning toward student-focused inquiry-based research activities (Fouché & Bartley, 2016).

Csiernik, Birnbaum, and Pierce (2010) advocate the use of case-based learning that involves connecting methodological knowledge to real-world case situations that can be woven together and told as a story, rather than presented as a set of unrelated activities. Telling stories in the format of case studies increases the relevance and meaning of what is being learned and allows students to tackle realistic and challenging real-world issues, engaging them directly in their learning (Csiernik, et al., 2010). Reading the case, thinking about a solution, and developing a plan of action can provide students with the vicarious experience of being a social work researcher without feeling that they need to be the expert (Csiernik, et al., 2010). At the end of each case students are provided with a set of discussion questions and additional readings to assist in focusing their thinking and enriching the learning opportunity. The role of the instructor is to facilitate a participatory process that involves asking questions, providing encouragement, recognizing student contributions, and managing the flow of discussion. Using small groups to examine case studies also serves as a form of social learning that can be used in studying and practicing research both in the classroom and in the field (Csiernik, et al., 2010).

Cased-based learning can be seen as a form of experiential learning. First-hand experiential learning is central to social work education. Students need the opportunity to use real data to develop their skills in accessing, understanding, interpreting, and presenting answers to pertinent social work research questions. Students are likely to gain most benefit from research, in terms of learning and understanding, when they are also involved in research through active learning (Shaw et al., 2012). Csiernik et al. (2010) argue that students tend to expect and respond most positively to curricula grounded in inquiry-based learning. With respect to research education formats, the integration of practice with research learning emphasizes hands-on and skills-focused training. Lundahl (2008) highlighted the importance of active learning strategies to promote skills related to critical thinking, understanding the relationship between research and practice, problem solving, and developing expertise in research. Such skills can be developed through discussion, journaling, writing exercises, project-based learning, and skills practice as ways of promoting higher level understanding of a subject, through direct involvement with the material, as opposed to passive strategies in which students are assumed to absorb information passed by the instructor via lectures (Lundahl, 2008). Experiential learning requires supportive and approachable instructors as well as a classroom environment that promotes active learning. In summary, the literature on teaching practice research in social work identifies several challenges, including barriers to effective collaboration between researchers, practitioners, and agency administrators in practice research, the lack of student interest in acquiring or utilizing research in practice, and limited effective models for teaching practice-based research in social work. The purpose of this project is to use a case-based, inquiry-focused experiential approach to involve graduate level social work students in a range of class and field activities designed to increase their competencies of practice research.

3. Methods

3.1 Description of Experiential, Inquiry-Based Learning Activities

The following six sets of activities involve students in a range of class and field activities including case studies, storytelling, field surveys, agency interviews, and critical reflection activities, as part of two social work research courses – Social Work Research 1 and Advanced Social Work Research. The Social Work Research 1 course introduces social work students to the foundation of sound research concepts as a basis for the expansion of social work knowledge and an opportunity for strengthening practice skills, and prepare them to become effective social workers capable of utilizing evidence-based principles and theories in their practices. In the Advanced Social Work Research course, students continue to examine the roles of social workers as both consumers and practitioners of research, with an increased emphasis on the development of practitioner focused research skills, including single-system research designs and program evaluation. About 18-20 students are enrolled in each of these courses.

3.1.1 Activity 1: Formulating a Practice-Based Research Topic – A Case Study

Identification of a research problem is a search for a general area of interest that has professional meaning and practical implications (Steinberg, 2015). The research problem can be an issue, concern, dilemma, question or gaps of knowledge that need exploration, examination, or resolution. Problem formulation is like a funnel through which our

thinking must pass (Steinberg, 2015) and thinking goes back and forth, bringing us closer to clarity and focus. To help students understand the process of formulating a practice-focused research topic and developing relevant research questions, the instructor begins the activity with a brief overview of the following agency case, extracted from Yegidis and Weinbach (2009, p. 65).

> During the past year child protection workers were receiving many more reports of possible child abuse by local professionals than in previous years. A very large percentage of the cases were never opened for services because the worker assigned to investigate quickly determined that they were unfounded… They were spending much of their day dealing with reports where no abuse had taken place, while not having enough time to devote to those cases where abuse was probable.

Students are asked to reflect on their professional experience to discuss about the agency problem - too many unfounded cases. Further discussion allows the students to compile a list of probable problems. The list included:

1. Social workers in the community were making too many inappropriate referrals
2. Inappropriate referrals were the result inadequate training of social workers
3. Child protection workers were erroneously declaring cases to be unfounded because they are overworked
4. Cases were being declared unfounded for fear that a determination of founded cases would result in more work for child protection workers
5. Certain workers were contributing to the large number of unfounded cases by determining that all or most of their cases are unfounded.

Based on agency needs, practical feasibility, and political considerations, students are asked to decide which of the above research problems to pursue and explain why. Collectively, students selected the research problem – 'Some workers might be more likely than others to perceive that abuse had taken place'. From the case study, a list of relevant research questions may include: What laws and regulations govern child protection workers' decisions about whether a case is determined to be founded? Could different working conditions in some way help to explain the different rates? Could differences in education and training of workers somehow relate to the different rates? How great an influence is supervision in worker determinations regarding reports of suspected abuse? Do some social workers perceive rewards for either founded or unfounded cases that other workers do not perceive? Are the different demographic characteristics of workers (for example, age, race, sex, or parenthood) related to their determinations? (Yegidis & Weinbach, 2009, p.69). Students are then instructed to discuss which of the above research questions they could pursue and in what way they can combine some of these questions. Once the research questions are selected, students learn how to identify the major constructs in the research questions and how to conceptualize and operationalize these variables.

3.1.2 Activity 2: Using Assessment Templates for Critical Evaluation of Published Research

The importance of being able to understand, evaluate, and utilize relevant knowledge has long been acknowledged in the social work profession (Natland, Weissinger, Graaf, & Carnochan, 2016). Being a social work practitioner-researcher entails reading research studies and reports, reflecting about practice, being an informed consumer of research, and becoming a critical thinker (Csiernik et al., 2010). To engage students in critical evaluation of published research, students are provided several research papers based on practice-focused real-world research projects employing various research designs. Students are asked to evaluate critically the quality of each of these study designs and implementations and to consider applicability of findings for social work practice. Working with an entire article provides students with the opportunity to examine and critique the entire research project and to judge the quality and usefulness of research findings (Csiernik et al., 2010).

In Social Work Research 1 course, students are instructed to complete a literature review on a practice-based research topic they choose. They are asked to search for 10 articles (at least 6 scholarly, peer reviewed articles published in reputable journals) that they think will provide them with critical knowledge and understanding to their research topic and related questions. To assist them to complete this activity in a comprehensive and focused manner, students are provided with an evaluation template. Approaching the task in a systematic fashion increases the likelihood that students will consider the most important features of research and identify important issues and problematic outcomes as well as addressing the quality of study design and implementation (Csiernik et al., 2010).

Students are asked to review each peer reviewed empirical article critically and thoroughly and provide information on the followings – authors, article title, journal title, year of publication, research questions/hypotheses, population of interest and subjects (who was bring studied), study methods (whether a survey, an experiment, quantitative, qualitative, or mixed methods? They also review how the study participants recruited?), measures (instruments,

standardized questions or open-ended questions) that were used, major findings, as well as the limitations of the study. For government statistical reports, policy/concept papers, book chapters, research reports, etc., students are asked to summarize the following for each of these reports - purposes of the paper/report, research questions, tools used to study questions, major findings and implications of the findings for their proposed studies. To help students recap what they learned in the first research course, students taking the Advanced Social Work Research course are asked to select one of the three assigned articles to critique by addressing a number of critical questions including study purposes, research questions, study designs, sample/population, measurement and data collection, major findings, strengths and limitations, and their assessment of overall quality of the study.

3.1.3 Activity 3: Single-System Research Design – A Tool for Evaluation of Clinical Practice

The use of single-system research designs (SSRDs) is compatible with the pragmatic focus of social workers who use practical methods to evaluate agency problems, social policies, and direct practice interventions (Thyer, Artelt, & Shek, 2003). With an increasing demand for accountability and quality in service provisions, social workers find it necessary to collect scientifically credible evidence to show if their programs or interventions produce favorable outcomes. The systemic evaluation of practice using SSRDs can inject greater specificity, objectivity, and empiricism into the clinical research process (Monette, Sullivan, & DeJong, 2011). This research approach allows the practitioner to know precisely what treatment was applied and how much effect or change was produced.

The purpose of this assignment is to increase student's familiarity with SSRDs and to build their confidence in their ability to use this type of assessment in social work practice. Basic elements to all SSRDs include: selecting the target outcome, selecting the intervention, selecting the measurement tool, collecting baseline data, collecting intervention data, and conducting the analysis. By measuring the client's progress toward the target outcome, social workers can determine whether an intervention is successful. The results of the intervention can be shared with the client to reinforce progress and treatment decisions (Monette et al., 2011). The design is a useful tool for practitioners who want evidence-based methods to evaluate their practice. The instructor provides the following instructions for students to apply SSRD to complete a research study.

1. You are asked to evaluate yourselves and/or someone you know and choose one target behavior/feeling/thought of the person you will attempt to change, for example: cigarette smoking, soda intake, checking Facebook, lateness, weight loss, etc.

2. Study and choose a particular evidence-informed intervention that will assist you in making that change.

3. Define the target behavior/feeling/thought that you attempt to change in measureable terms by creating two measurable indicators (can be measured by frequency, magnitude, or duration).

4. The indicators you choose must be specific enough to be measured, and can be measured frequently.

5. Create a graph with X and Y axes. The Y axis will measure your operationalized indicator for each attempt (what happened with that behavior/feeling/thought), the X axis will measure what day/trial this happened.

6. Take baseline measures for at least several days/times of your operationalized indicator.

7. After baseline, implement an intervention that is aimed at changing your target behavior/feeling/thought, and continue to measure it for at least 7-10 days to track the changes.

3.1.4 Activity 4: Agency Research and Evaluation Field Assessment

Human service organizations often collect lots of administrative and client data primarily for external reporting in order to inform decision making at all levels of the organization. One major approach involves the pursuit of accreditation as a systematic way of assessing the agency's needs, strengths, and service gaps in order to develop actions to improve the quality of service delivery (Austin, 2012). Agencies see the need to facilitate the integration of research and data into daily practice and decision making or share program data with program staff to improve service delivery. Many organizations recognize their needs to implement evidence-informed practice and use staff surveys, team building activities, and strategic planning and reviews, to "encourage open dialogue, facilitate communication, and develop cultures of transparency that are essential for creating human service learning organizations" (Austin, 2012, p.1). In this activity, students engage in a lively discussion on the topic - "What is my agency doing with data? What am I doing with this?" Social work students choose different majors such as direct practice, group work, community organizing, or administrative management, and may specialize in specific fields of practice (for example health or mental health, children, youth, and families, schools, aging, veterans, etc.). They work together with agency colleagues to collect valuable agency data such as intake histories, client assessment records, progress recordings, program assessments and evaluation, community planning activities, administrative

measures, etc. regularly in their employment or internship agencies. In this activity, students are divided into small groups (4-5 in each group) and instructed to discuss the following questions:

1. What kinds of data does the agency generally do to collect, manage, classify/organize? How does your agency summarize and present the data and in what formats? What functions do these activities serve? Who primarily perform those functions?

2. What tools does your agency use to manage and analyze data? Do they use any tools such as access, excel, statistical or other software to help with these functions?

3. What roles and functions do you play with data (collect data only, manage data, or summarize data)?

4. What do you perceive as important advantages/benefits to have a sound data collection, management, and analysis systems in the agency? What are the constraints that prevent the agency from doing so?

Following the small-group discussion, each group reports back to the class and share what they learn in the small group discussion. They are then asked to complete a field assignment and submit a short essay. They are asked to consult or interview their agency supervisor or someone in their agency who is primarily handling data and reports to address the above questions. Once students complete their assignment, the instructor can arrange a follow-up class activity and have students to share and discuss what they have learned in the field.

3.1.5 Activity 5: Design and Implementation of A Practice-focused Class Study Project

Freymond and colleagues (2014) suggest that research experience is important and actual experience facilitates the development of interest in research, and doing research can lead to deep understanding. The faculty needs to provide opportunities for students to transform didactic research training into practical research skills. Freymond et al. (2014) found that when students were able to participate in research activities, they reported increased confidence in their research skills. It is important for MSW programs to cultivate a learning environment in which students can be engaged in exploring the research interests and ask critical questions about the nature of social work research. In the past two years, students in the Advanced Social Work Research course selected a group study project to explore perceptions and attitudes about terrorism and government monitoring program among general public (Best, Krueger, & Pearson-Merkowitz, 2012; Cohen et al., 2006). They launched a survey with about 180 community members in New York City. They compiled the demographic profiles of these participants and assessed their perception, attitude, and feelings on terrorism and government monitoring activities. In the computer lab, they then learned and practiced data cleaning, data entry, descriptive and bivariate statistical analyses, and reports of major findings. The group study project yielded interesting and important findings about relationships between certain demographic characteristics of these participants such as their educational level, racial or ethnic background, immigration status, family background, etc. with their attitude, perceptions, and knowledge towards terrorism.

3.1.6 Activity 6: Class Activity - Presentation & Dissemination of Research Finding

Following the activity 3.1.5, students are divided into small groups and instructed to discuss either Q1 and 2 or Q3 and 4 below and then report the summary of their discussion in the larger class.

Q1 Your research team would like to publish this study in a professional journal, what would you plan to do to prepare the paper, what else you need to know to strengthen the paper that can be potentially publishable?

Q2 You are invited to give a presentation for 30 minutes at a national psychology conference on terrorism, health, and mental health issues. Participants include mainly researchers, government and non-profit agency executives, health and mental health administrators, and seasoned practitioners. How will you prepare the presentation?

Q3 You are invited to share the findings of your study in a regional interdisciplinary event with about 50 participants. The 1-hour workshop format will allow more instant and interactive dialogues between presenters and participants from different disciplines including physicians, social workers, psychologist, public health professionals, teachers, community advocates, etc. What is your plan to facilitate this workshop?

Q4 Terrorism and national security is a hot topic recently because of numerous terrorist attacks in different parts of the world. A local media reporter learned about your study and would like to conduct an interview with you and hopefully write and publish an article about your study in a major newspaper. What would you need to know to prepare for the interview and what is your plan to share the findings of your study?

4. Results

4.1 Summary of Course Evaluations – Students' Ratings of Course Competencies

Students completed anonymous online course evaluations to assess their level of attainment in all course competencies specified in the syllabi of two research courses. The results found that the majority of students either

strongly agreed or agreed that they attained all course competencies in both research courses except one student who strongly disagreed that he or she attained any course competencies in Social Work Research 1. The results are summarized in Table 1.

Table 1. Summary of Responses from 33 Students Enrolled in 2 Social Work Research Courses and 30 Students Enrolled in 2 Advanced Social Work Research Courses.

Social Work Research 1 - Attainment of Course Competencies	SA*	A*	U*	D*	SD*
Develop an understanding and appreciation of a scientific, analytic approach to building knowledge for practice.	52% (17)	45% (15)			3% (1)
Critically analyze current research and determine its usefulness for social work practice.	58% (19)	39% (13)			3% (1)
Demonstrate an understanding of the basic research concepts and their relationship to social work practice.	58% (19)	36% (12)	3% (1)		3% (1)
Demonstrate an understanding of the value base, ethical standards of the profession and its applicability to their practice as it pertains to research.	55% (18)	42% (14)			3% (1)
Explore and understand ethical and value dilemmas and resolutions in social work research.	58% (19)	36% (12)	3% (1)		3% (1)
Articulate their ability to connect social work theoretical and conceptual frameworks to the formulation of social research questions.	58% (19)	39% (13)			3% (1)
Develop strategies to answer social work research questions including questions about the effectiveness of social work interventions.	58% (19)	36% (12)	3% (1)		3% (1)
Display an understanding of the role that gender, age, socio- economic status, race, ethnicity and other variables play in the development of social work and social science research.	55% (18)	39% (13)	3% (1)		3% (1)
Demonstrate ability to conduct literature review to answer research questions, suggest new questions and provide a rational for methods.	55% (18)	42% (14)			3% (1)
Articulate concepts and principles associated with quantitative, qualitative and mixed methods research.	52% (17)	45% (15)			3% (1)
Advanced Social Work Research - Attainment of Course Competencies					
Demonstrate an understanding of the different types of data analysis used in quantitative and qualitative research.	47% (14)	53% (16)			
Utilize existing literature and information to answer research questions, suggest new questions and provide a rationale for methods.	50% (15)	40% (12)	10% (3)		
Utilize basic statistical terms, concepts and techniques.	53% (16)	43% (13)			3% (1)
Understand and use techniques for applied research.	47% (14)	43% (13)	7% (2)	3% (1)	
Design appropriate research methodology (single subject design) to evaluate their practice.	57% (17)	43% (13)			
Articulate the role of data analysis in the development of a research proposal.	57% (17)	40% (12)	3% (1)		
Critically evaluate research articles and findings.	47% (14)	53% (16)			
Conduct a research study from beginning to end, using quantitative data analysis, reporting of findings and discussing strengths and limitations as well as implications for social work research and practice.	47% (14)	47% (14)	7% (2)		
Articulate ethical issues and dilemmas in executing research projects and in program evaluation.	47% (14)	50% (15)		3% (1)	
Demonstrate an understanding of how the roles of gender, age, social-economic status, race and ethnicity impact social science research.	43% (13)	47% (14)	3% (1)	7% (2)	

*Likert Scale – SA - Strongly Agree; A - Agree; U - Unsure; D - Disagree; SD - Strongly Disagree

4.2 Use of Grading Rubric to Assess Students' Attainment of Course Competencies

Table 2. Grading Rubric for Completion of Literature Review (18 students enrolled in Research 1 Class).

Assignment	Excellent	Competent	Needs Work
Population of Interest and Research Problem	Provide relevant and sufficient population statistics (demographics) and background information about the study problem – definition, extent, scope, prevalence, impacts. **67% (12)**	Provide some population statistics or background information of the study problem - definition, extent, scope, prevalence, and impacts. **33% (6)**	Incomplete or very little information of population statistics or study problem provided.
Review of Related Literature	Thoroughly review what is already known about the topic and include relevant literature such as book articles, empirical studies, government reports, census, statistics, websites, or other data sources, about the research problem. Sources of literature will include about 10 articles (at least 6 scholarly, peer reviewed articles published in scientific journals); Synthesize and integrate what have been learned and highlight all of the followings: (1) what is known about the study topic, (2) what the gaps are in knowledge, or (3) how this literature is relevant for the topic. **39% (7)**	Review what is already known about the topic and include relevant literature from the suggested sources. Source of literature will include about 8 articles (either peer reviewed articles published in scientific journals or other sources); Describe what have been learned and highlight a few of the followings: (1) what is known about the study topic, (2) what the gaps are in knowledge, or (3) how this literature is relevant for the topic. **61% (11)**	6 or less out of 10 articles are included for review, lack of integration or synthesis or related literature to inform the knowledge gap.

Table 3. Grading Rubric for Single-System Research Report (17 students enrolled in Advanced Research Class).

Assignment	Excellent	Competent	Needs Work
Methods	Accurately describes all the following components and provide sufficient justifications: 1. The target behavior that the study is seeking to change. Explain why to address this target behavior/feeling/thought. 2. How the target behavior operationalized into an indicator (frequency, magnitude and duration). Justify why this indicator operationalized in such way. 3. Two measurable indicators that can be measured by frequency, magnitude, or duration. 4. Details of step-by-step intervention plan. Any challenges encountered (e.g., difficulties sticking to the intervention plan, frustration, self-consciousness, etc.). Any positive experiences related to the intervention that occurred while conducting the intervention plan. **35% (6)**	Accurately describes at least 3 of these components and provided some justifications. **65% (11)**	Accurately describes 2 or less components with little or no justification provided.
Major Findings/ Results	Accurately and clearly displays two graphs to show all the changes of indicators during baseline (5-7 days) and intervention phase (7-10 days); Accurately summarize key findings and explain if the goals of interventions have been achieved or any improvement in targeted behavior//thought. **29% (5)**	Displays two graphs to show changes of indicators but does not provide complete summary of findings. **47% (8)**	Only display one graph, presentation of graphic information and key findings not clear or accurate. **24% (4)**
Discussion	Discuss clearly and adequately the following three areas: 1. Strengths and weaknesses of the project in terms of research design (AB), intervention, and data collection methods; 2. Any reliability or validity/reactivity problems; 3. Whether the proposed intervention was successful or not and explain why. **18% (3)**	Discuss clearly two of the areas and provide some explanations. **70% (12)**	Discuss one or two of the areas with little explanation or comments. **12% (2)**

The instructor used grading rubrics (Table 2 and 3) to assess student performance on their major assignments to determine if they achieved the course competencies. The use of grading rubrics was piloted in the academic year of

2016-17. Preliminary results with one class of Social Work Research 1 and one class of Advanced Social Work Research indicated that the majority of students either exceeded or met the competency standards for key assignment elements. The percentage and number of students that were assessed and placed in all these categories are noted in Table 2 and 3.

4.3 Students' Comments on the Instructor's Course Evaluations

The instructor of a research course must be enthusiastic and passionate about the course material and able to work with students on projects to meet their learning goals and build confidence (Harder, 2010). The instructor's enthusiasm for research and belief in the capacity of students can make a significant impact on the student learning. This instructor shows his enthusiasm by sharing his own positive experiences with research, including examples of positive outcomes to enhance practice. As part of course evaluations, students posted their written comments anonymously. Their candid comments on this instructor's course evaluations which reflected the importance of the instructor's attitude:

> "I really liked that Professor was extremely knowledgeable, passionate about the research field, very helpful, answered all questions thoroughly, gave very detailed feedback on all assignments in a timely manner. If I did not understand something, he was nice enough to explain it until it was understood."

> "I liked this class because Professor was very caring. He is very passionate about this subject."

> "Professor was very enthusiastic when teaching the class. He always asked questions to the make sure the concept was understood."

It is also important to create a welcoming and participatory learning environment with an emphasis on positive relationships between research instructors and students wherein students can ask questions comfortably, be guided to apply research related skills and knowledge, and be supported in their research activities (Capshew, 2005). The instructor has to be approachable, accessible, helpful, and also bring an element of playfulness to the classroom. Students' comments on this instructor's course evaluations which reflected the importance of creating a participatory and supportive learning environment included the following:

"He took his time to explain if I did not understand the content and gave feedback for papers. He guided us step by step to understand the SPSS software."

> "Professor always helped to relieve stress felt by the class, and made jokes and provided detailed explanations of what we were studying, to help us get through the material."

> "The professor was knowledgeable about this topic, very helpful and nice. Research can be boring but he did his best to make it fun and tried to engage all the students."

> "He is humble and always in good spirits. He is knowledgeable in his field for knowledge sake and the betterment of humanity. I really respect him."

The use of structured and incremental learning opportunities is also very helpful to provide a supportive learning environment (Harper, 2010). This instructor breaks up major projects into mini assignments, allowing each assignment to be graded at regular intervals. Each of the mini assignments builds on the previous ones. Using a detailed grading rubric, the instructor has the opportunity to provide specific feedback on each assignment. The student then has the opportunity to incorporate the instructor's feedback to complete his/her final paper, which is a compilation of earlier assignments (plus some new sections). Additionally, students are provided with lots of course materials which include lecture outlines, sample papers, and assignment descriptions with grading rubrics. Students appreciate such structured and incremental learning opportunities, as reflected in this instructor's course evaluations:

> "I truly think the professor cares for the students learning and he was willing to help. I also found it helpful that for both the midterm and final we were given outlines of what was expected from us for each assignment."

> "Professor always provided feedback on any assignments which was very helpful. He was also always available if there were any questions or concerns which were appreciated."

> "He was very thorough and extremely helpful. He went above and beyond to work with his students and make sure we understand the material, and how to execute our work."

> "Professor goes out of his way to make sure the student is on top of the assignment. He is very thorough and precise, gives a lot of examples to make the research class more comprehensible".

5. Discussion

5.1 Implications for Practice Research Education

Teaching practice-based research in social work shares several goals. These goals were set in the CSWE's EPAS core competencies. These goals are: (1) social workers learn how to use practice experience and theory to inform scientific inquiry and research; (2) apply critical thinking to engage in analysis of research findings; and (3) use and translate research evidence to inform and improve practice, policy, and service delivery. This article described six sets of class and field activities designed to achieve these goals and advance graduate level social work students' competencies of practice research.

While more systematic evaluation of these activities have yet to be completed, anecdotal student feedback collected in course evaluations and the instructor's use of grading rubrics to assess student's attainment of course competencies, indicated that teaching practice research courses using this innovative experiential pedagogical approach has a promising potential for promoting most of the goals set in the CSWE's EPAS core competencies. Specifically, formulating a practice-based research topic and developing relevant research questions can help students understand the roles of agency needs, political considerations, practical feasibility, and practice experiences in the formulation of research problem and research questions. Learning how to retrieve and critically evaluate published research and discussing how empirical literature can help them to figure out which information they need to address their research questions can help students develop understanding and appreciation of the use of research and critical thinking. Having research experience in the use of SSRDs can help students build their confidence in their ability to use this type of assessment to evaluate their practice systematically. Discussing and investigating about the agency's use of data for various purposes make students understand the critical importance of the integration of research and data collection into daily practice and decision making. Having first hand experiences in designing and executing a practice-informed research study and learning and practicing data analyses can help them develop a better understanding of research methodology and research process. Finally learning and discussing various platforms practice-based researchers use to present and disseminate their research results help students appreciate the utility and practical relevancy of research. The whole experience of learning about practice research while in the midst of 'hands on' experiential research can promote students' understanding and appreciation of a systematic rigorous approach to knowledge and practice development.

Students' responses and assessments by the instructor suggest that using experiential class and field learning activities, including case studies, storytelling, field surveys, agency interviews, and critical reflection activities, can help students overcome much of their reluctance often associated with research courses, enhance their knowledge of consuming and producing research, and increase their competencies of practice research. Findings in this report have several implications for the instructor to use this pedagogical approach to enhance students' practice research competencies. Several key elements characterize this innovative, experiential pedagogical approach. It is a case-based learning and through examples and rich case descriptions, students learn about real-world research issues. It is discussion-centered and research ideas flows fluidly between the instructor and students. It is a collaborative learning process as students actively discuss about their practice cases and situations and engage in constructive dialogues with each other. Finally cases chosen for learning and research are context-specific as students see the connection of social work research to day-to-day practice contexts.

5.2 Study Limitations

This project faced several limitations. The project relied on anonymous online course evaluations as the primary source of data and did not employ more rigorous and systematic data collection instruments. Although more than 90% of the students completed the course evaluations, the sample size was small. Students completed the surveys voluntarily and it was not a representative sample. The results did not collect specific demographic data such as age, gender or other background characteristics of student participants. The application of this pedagogy was only limited to a particular course and discipline, thus the findings from this report cannot be generalized to the entire social work student population. Despite these limitations, this project does contribute to our knowledge and understanding about the use of experiential classroom learning and field activities to help students enhance their skills and competencies in practice research.

5.3 Conclusion

The determination to see our social work graduates embark on their professional careers with both the skills and the desire to incorporate rigorous research as part of their practice inspired the instructor's decision to redesign the research curriculum. The use of this pedagogical approach provides graduate level social work students with diverse learning experiences in the classroom and the field, including experiential class activities, guided discussion and

reflection on a range of critical topics, group collaboration and discussion on a study project, knowledge co-creation, case studies, and field assignments. Through these activities, students can acquire skills and competencies on how to use professional experience and empirical knowledge to inform scientific inquiry and research, apply critical thinking to engage in analysis of research findings; and use and apply research evidence to inform and improve practice, policy, and service delivery.

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