

Influence of a Faculty Development Workshop on Clinical Evaluation Practices in a Nurse

Anesthesia Program

Lindsey Wilson

University of Missouri – Kansas City

Approved May 2016 by the faculty of UMKC in partial fulfillment of the requirements for the
degree of Doctor of Nursing Practice

© 2016

Lindsey Wilson

All Rights Reserved

Abstract

Faculty development has a number of benefits in academia. Specifically, in nurse anesthesia education, doctoral programs are required to provide faculty development for their clinical instructors. In order to fulfill this requirement and satisfy faculty's desire for growth, an evidence-based faculty development workshop on clinical evaluation was implemented at a school of nurse anesthesia education program which offers a doctorate of nursing practice and a nurse anesthesia certificate.

The purpose of this pilot study was to determine if a workshop on clinical evaluation will have an impact on faculty's clinical evaluation practices. Of the 35 eligible clinical instructors, 30 participated in at least one session of the two education sessions. To measure changes in evaluation practices, scores on the assessment portion of the survey tool developed for the American Therapy Association Clinical Instructor Education and Credentialing Program prior to the workshop were compared to scores following the workshop at eight and 16 weeks. There was a significant difference ($p < 0.5$) in post education sessions survey scores for three questions on the second post-test. The findings of this study were then utilized to develop a clinical evaluation tool and will further be used to plan future faculty development offerings.

Keywords: Faculty development, nurse anesthesia, nursing, education

Influence of a Faculty Development Workshop on Clinical Evaluation Practices in a Nurse
Anesthesia Program

Due to the stressful and demanding nature of practice, teaching, and scholarship, it can be difficult for any novice or experienced faculty to obtain the necessary skills they need to be successful educators without assistance (Horton, 2003; Sawatzky & Enns, 2009). If their needs are not addressed, the quality of teaching may suffer. Possessing excellent clinical skills and knowledge does not mean that teaching those skills and knowledge comes naturally (Starnes-Ott & Kremer, 2007).

The selected Midwestern school of nurse anesthesia has been training student registered nurse anesthetists (SRNAs) since 1950 (see Appendix A for definition of terms). In 2013, selected Midwestern school of nurse anesthesia partnered with the University of Missouri-Kansas City (UMKC) School of Nursing and Health Sciences. With this transition, a comprehensive revision of the curriculum occurred to now offer a doctorate of nursing practice (DNP) and a certificate in nurse anesthesia. The Council on Accreditation of Nurse Anesthesia (COA) now requires faculty development to be offered in doctoral programs. Certified registered nurse anesthetist (CRNA) faculty now have an increased responsibility and workload in the clinical and didactic delivery of the new curriculum.

A faculty development (FD) program addresses a multitude of these issues. The evidence-based practice (EBP) project implemented has the most specific impact on clinical education in nurse anesthesia. By having the necessary tools to evaluate students effectively, faculty can be more effective in their instruction and evaluation. Faculty in nurse anesthesia education programs desire FD, especially in the novice years of their careers (Starnes-Ott & Kremer, 2007). Educators participating in FD programs utilize what is learned to improve their

teaching strategies (Steinert et al., 2006a). Students also benefit from effective instruction and evaluation (Henrichs, 2009).

Significance with Economic, Policy, and Health System

Providing FD of current nursing faculty is part of the solution to address the larger issue facing nursing education; the nursing faculty shortage. Shortage of nursing faculty is a problem that nursing education is facing across all levels of training (American Association of Colleges of Nursing, 2014). Improving retention is a key component to correcting this problem and FD is an important factor that the American Association of Colleges of Nursing is attempting to secure funding (American Association of Colleges of Nursing, 2014). Retention is an important issue at the selected Midwestern school of nurse anesthesia. Since the transition from a Master's degree program to a Doctoral degree program in 2012, turnover rate has increased from 0% in 2011 and 2012 to 14.7% by May of 2014 (Director of Anesthesia, personal communication, January 31, 2014). While this may not be the only factor leading to the turnover rate, faculty transitions can be stressful (Morin & Ashton, 2004).

Local Issue

Anesthesia services are an integral part of the perioperative experience to every patient undergoing surgery and other invasive procedures. In the United States, CRNAs administer 34 million anesthetics to patients each year ("Certified Registered Nurse Anesthetists at a Glance," 2015). In the state of Missouri, anesthesia services are offered by CRNA-only practices in 48% of Missouri's counties with most of these being rural in nature ("CRNAs are the primary anesthesia providers in rural Missouri," 2015). Without these CRNAs, many patients in Missouri would be without surgery and anesthesia services.

The selected Midwestern school of nurse anesthesia is one of only four schools of nurse anesthesia in the state of Missouri so providing SRNAs a quality education makes this an important issue. It follows that their education is paramount and must be of high quality (Horton, 2003). For this reason, educating future CRNAs carries great responsibility and importance. Since all CRNAs at the selected Midwestern school of nurse anesthesia are also instructors, being a CRNA in this institution presents unique challenges and stresses. New faculty members have a number of stressors as they transition to their new role as an educator (Sawatzky & Enns, 2009; Horton, 2003). When added to the stress of beginning one's practice as an independent practitioner, the challenge can be remarkable. Experienced instructors have also faced new challenges as the program has transitioned to a doctoral program.

Diversity Considerations

Diversity is not only present in an academic environment, but is welcomed (Dhaliwal, Crane, Valley, & Lowenstein, 2013). Diversity means more than differences in ethnicity but also differences in age, gender, experience level, socioeconomic status, and is often defined by each academic institution (Dhaliwal et al., 2013). One the main elements of diversity in this FD program will be the level of experience. Like most institutions, the faculty levels are sequential at the selected Midwestern school of nurse anesthesia; clinical instructor, assistant clinical professor, and clinical professor. While the tiers of faculty are progressive, that does not mean that individuals at a particular level are at the same stage and experience level (DiLorenzo & Heppner, 1994).

Another element of diversity is the difference in academic degree held by faculty. One third of the faculty have or are working towards a doctoral degree. The diversity among the group is a strength that can facilitate learning by sharing experiences while learning new

methods of teaching. This can be accomplished by continuing to develop and learn the best ways to instruct, evaluate, and provide the appropriate curriculum for the diverse group of SRNAs in training.

Problem and Purpose

Faculty at the selected Midwestern school of nurse anesthesia have increased stressors of academia with the recent change to a DNP program. With this change, came new requirements by the COA for FD in the areas of instruction, evaluation, and curriculum. The EBP project addressed one area of FD; clinical evaluation. As an EBP project, a FD workshop was instituted, as part of a larger FD program at the selected Midwestern school of nurse anesthesia. The mandatory areas of development identified by the COA are curriculum, instruction, and evaluation. To narrow down, the focus was limited to FD in the area of clinical evaluation.

Problem Statement

If a FD workshop addressing the subject of evaluation was not put in place, the requirements by the COA would not have been met and faculty may have had difficulty in obtaining the tools needed to be successful in evaluating doctoral nurse anesthesia students.

Intended Improvement with Purpose

The purpose of the EBP project was to determine if the evidence-based FD workshop on student evaluation improved practices on student evaluation in the faculty at the selected Midwestern school of nurse anesthesia as measured by an increase in scores on the survey tool developed for the American Therapy Association Clinical Instructor Education and Credentialing Program (ATA CIECP) (Bridges et al., 2013). Establishing a FD program is a necessary change that needed to occur to fulfill the COA requirement. With the recent change to a DNP program,

assessing the faculty's teaching and evaluating practices will help all faculty be a cohesive group of instructors.

Facilitators & Barriers

There were multiple facilitators of this project. The selected Midwestern school of nurse anesthesia faculty were the main facilitators as this workshop was meant to benefit them in their ability to evaluate students. Evaluation of students is a major part of their job description and is done nearly every day. All levels of faculty will be at liberty to participate; clinical instructors, clinical assistant professors, and clinical professors. Two key stakeholders included the Director of Anesthesia at the affiliated hospital and the Director of Education at the selected Midwestern school of nurse anesthesia. Both have been active in planning and coordinating the scheduling of events to fit the school's needs.

As with any project or intervention, there were challenges or barriers to its success. Financial costs were not the only barrier, as time is often just as important as money. While participation in the proposed research project was voluntary, participation in the FD workshop is mandatory for DNP faculty to fulfill the COA requirement. The only feasible time to offer the workshop was during regular non-working hours. However, anesthesia services at the affiliated hospital are offered 24 hours a day, seven days a week, at two campuses. This eliminates two CRNA faculty, who were on call, from being able to participate in the workshop.

The largest financial barrier to this proposed project was the cost of continuing education credits (CEUs) and cost to provide a meal at the workshop scheduled during the evening (see Appendix B for cost information). To meet the COA's requirements, the FD offerings must be approved for CEUs. This expense added to the budget of the project significantly and necessitated a registration fee. Fortunately, faculty at the selected Midwestern school of nurse

anesthesia have an education allowance and can be reimbursed for this amount. Local resources and individuals who are also educators at UMKC and were willing to share their expertise volunteered their time and services. Once the program is established, a long-term goal is to utilize the selected Midwestern school of nurse anesthesia's faculty to teach future FD educational offerings so that the program might become self-supported and self-sustaining.

Review of the Evidence

PICOT

Will providing an education program on student evaluation influence the selected Midwestern school of nurse anesthesia faculty scores on the ATA CIECP survey tool eight weeks and 16 weeks after the program?

Search Strategies

A systematic literature search was conducted utilizing the following databases; Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, and Education Full Text. Within CINAHL, the additional limits were selected on the search phrase of "faculty development;" research article, exclude MEDLINE results, and peer-reviewed. This search produced 63 articles that were narrowed down for relevance. Within PubMed, the search phrase "faculty development medical education" produced 5,618 articles. After applying the limits of free full-text, publication date less than ten years, and selecting review or clinical trial 57 results remained. Those articles were then narrowed down for relevance. Within the Education Full Text database, the search phrase faculty development was utilized and produced 2,826 results. The limits of scholarly (peer-reviewed) journals and subject of nursing schools and faculty resulted in 62 articles that were then narrowed down by relevance.

In total, 182 abstracts were reviewed for relevance to FD within a health sciences or clinical teaching environment. This produced 19 articles that were analyzed for quality and relevance to the proposed EBP project. Those 19 articles were then narrowed down to 14 with the most relevant subject matter; two were systematic reviews (evidence level V), three quasi-experimental designs (level III), four descriptive or qualitative design (evidence level VI), one descriptive report (evidence level VII), two cohort study design (evidence level IV), one longitudinal study (evidence level VI), and one program recommendations based on synthesis of evidence (evidence level VII) (see Appendix C for evidence table organized by sub-topic).

Evidence by Sub-Topics

Due to the non-clinical nature of this topic and EBP project, the evidence supporting the stated PICOT question is of a slightly different nature. While it is not impossible to study FD in a randomized control trial format, it is not practical, and only a few studies of this nature are in existence (Steinert et al., 2006a). The majority of evidence supporting the use of a FD program for clinical faculty comes from cohort, descriptive or qualitative design studies performed by institutions in a clinical health profession setting.

Program designs

Starting with program design, specific FD program models examined in this review, have been published and evaluated in the literature. Four studies examined specific designs of FD programs or programs with specific qualities and made recommendations accordingly (DeStephano, Crawford, Jashi, & Wold, 2014; Elzubeir, 2011; James, 2004; Silver & Leslie, 2009). These studies have varying formats.

The study performed by Elzubeir (2011) is beneficial because it supports the idea that FD programs can be led by an organizations' own clinical faculty, not necessarily a person with an

education background. Over the course of four years, 150 participants attended FD programs and workshops led by peers. Each participant filled out a questionnaire immediately following each session to assess their satisfaction with the course and the quality of the instructors. Overall results showed that participants were highly satisfied with not only the program but found the instructors to be effective teachers.

DeStephano et al., (2014) explored a multisource feedback model as a means to evaluate faculty's teaching effectiveness. This model included feedback from five sources; self, video, learner, peer, and program coordinator evaluations. The authors concluded that this multisource feedback model was not only acceptable to the nurse educators participating in the program but was effective in providing useful feedback that could enhance faculty's learning and behaviors.

James (2004) established a FD day at their institution as a specific means to an end. The goal of the program was to facilitate nursing faculty from various institutions in exercising specific activities. These activities were to enhance their professional development, practice skills related to electronic medical record charting, and clarify student, faculty, and medical center roles. The first FD day was so popular that it became an annual event.

The evidence is clear that FD is beneficial and results in positive outcomes; these benefits and outcomes differ significantly based on the setting in which the program takes place. The majority of benefits stated can be categorized into two themes; faculty satisfaction and teaching improvement with behavioral change. Clinical health outcomes, student performance, and student satisfaction may be indirectly affected but are often not measurable outcomes found in the literature.

Faculty satisfaction

Faculty programs have goals specific to each institution providing the program, but all are meant to provide some benefit to the faculty members participating. If a program produces poor faculty satisfaction, it is not likely to be successful. Nearly all the studies examined reported high levels of faculty satisfaction (James, 2004; Reamy, Williams, Wilson, Goodie, & Stephens, 2012; Sarikaya, Kalaca, Yegen, & Cali, 2010; Sirhan & Triviño, 2012; Thorndyke Thorndyke, Gusic, & Milner, 2008), but not all specifically measured faculty satisfaction.

Jackevicius et al., (2014) instituted a formal mentorship program at a college of pharmacy for their faculty members. The formal program was developed after examining current examples of formal mentorship programs in a health sciences setting. Participants were sent an annual survey each year over the course of four years. The overall response rate was 62.7% for mentors and 59.6% for protégés (Jackevicius et al., 2014, p. 3). Over 90% of protégés found the program helpful in developing their ability to provide support, knowledge, guidance and career planning.

Teaching improvement and behavioral change

The goal of many of the FD programs examined is to improve teaching skills, attitudes, and behaviors. Three studies utilized longitudinal teaching sessions over an extended period to help to improve teaching (Cole et al., 2004; Reamy et al., 2012; Sarikaya et al., 2010). Reamy et al. (2012) utilized a mini-fellowship program for postgraduate year three residents. The purpose of the fellowship was to enhance the residents' teaching skills for current and future teaching opportunities by having focused sessions on clinical precepting, small group teaching, large group teaching, learner feedback and assessment, academic career development, and research skill development. In all but one category, there was a statistically significant improvement in teaching skills by the residents who completed the mini-fellowship over the ones who had not.

Cole et al. (2004) also implemented a FD program over a longer period similar to Reamy et al., (2012). The four goals of the program were to obtain enhanced teaching effectiveness, enhanced professional effectiveness beyond teaching, enhanced teaching enjoyment and enhanced learning effectiveness (Cole et al., 2004). Teaching effectiveness was measured by self-assessment; participants received surveys inquiring about attainment of the program goals three months into the program and after completion of the program. Program participants had higher pre/post change scores than program non-participants.

Sirhan & Triviño (2012) reported high levels of faculty satisfaction but also a significant change in knowledge acquisition educational planning as shown by a pre/post-test survey. Participants felt like they achieved all the learning objectives set by the program. In addition to increased knowledge, all participants planned to make changes in their current practices by implementing the techniques and skills they had learned.

Sarikaya et al., (2010) implemented a training skills course and a student assessment instrument course and then surveyed faculty after each course. The outcomes were measured by self-assessment and showed statistically significant changes in participants teaching practices in the areas of structured oral exams and clinical skills assessment instruments (Sarikaya et al., 2010). There was a much higher percent of junior faculty who found that their teaching skills changed after taking the course.

Liben, Chin, Boudreau, Boillat, & Steinert (2012) implemented a short workshop to improve the narrative medicine technique. Qualitative data analysis revealed that even after attending small, focused teaching groups, faculty has increased knowledge acquisition and improved teaching skills. While this was a small study, the conclusions are in line with the broader idea that FD programs are beneficial.

Mentoring and Scholarship

Two other themes within the literature emerged as components of a beneficial FD program; mentoring and scholarship. As previously discussed, Jackevicius et al. (2014) implemented a formal mentorship program as a means of FD, not just a component of the program. Silver & Leslie (2009) mention mentoring as a positive venue to enhance the experience of interprofessional relationships and project planning. Mentoring relationships were elicited from this design as experienced facilitators could mentor facilitators in training. The FD program described by Thorndyke et al., (2008) utilized functional mentoring as one component of the program. This mentorship revolved around a project to be completed by the junior faculty member and meant to benefit the institution. Balmer, D'Alessandro, Risko, & Gusic (2011) examined how mentorships evolve over time. Participants of this program reported overall satisfaction with the program and positive experiences.

James (2004) FD day used the pursuit of scholarship as a framework for the workshop. Because the workshop included hands-on learning, it fulfilled the application of knowledge example of scholarship (James, 2004). By participating in their development, faculty were also employing one avenue of scholarship.

Systematic reviews

Two systematic reviews on FD have been conducted, both in the area of medical education. Sorinola & Thistlethwaite (2013) conducted a review on FD specific to the area of family medicine while the review conducted by Steinert et al., (2006) pertained to medical education, in general. The work by Steinert et al., (2006) provided the basis by which many FD programs have been modeled. Steinert et al., (2006) sought to examine the literature on FD programs to understand what effect they had on knowledge, attitudes and skills of the individuals

participating in them. The authors narrowed their search from 2777 abstracts to 53 papers between the years 1980-2002. The major conclusions from their review mirror the same themes found in the literature already outlined in this paper.

Despite varying methodologies, all the studies examined by Steinert et al., (2006) reported high levels of faculty satisfaction and perceived usefulness. Improved attitudes of faculty towards FD and teaching were frequently cited as well. Participants were more motivated and excited about teaching than before participating in FD and were also more open minded towards utilizing FD measures. Increased knowledge attainment and skills were cited as benefits. With increased knowledge of educational concepts, participants of FD programs also reported changes in teaching behaviors that were self-realized and noticed by peers and students.

Sorinola & Thistlethwaite (2013) is the second systematic review conducted within the subject of FD. The authors examined 46 articles, narrowed down from 4520 articles, between the years of 1980 to 2010 on FD activities in family medicine. Both studies utilized the adaptation of Kirkpatrick's (1994) model for evaluating outcomes done by Freeth et al. (2003) to evaluate outcomes (Sorinola & Thistlethwaite, 2013; Steinert et al., 2006a). Sorinola & Thistlethwaite's (2013) was similar to the one done by Steinert et al., (2006) but there were two distinct differences. First, in Sorinola & Thistlethwaite's (2013) review, all types of FD interventions were examined, not just those focused on teaching enhancement and improvement. Other interventions included research, management, academic skills, and career development. Secondly, the review by Sorinola & Thistlethwaite (2013) was focused on family medicine and not the broader topic of academic medicine as a whole.

Despite those differences, conclusions were similar to the review by Steinert et al., (2006). High levels of participant satisfaction and FD intervention were highly valued by their

participants. Also in alignment with Steinert et al., (2006), positive changes in attitude towards teaching led to changes in behavior and learning. And although the review by Sorinola & Thistlethwaite (2013) had a broader scope of inclusion criteria related to the FD interventions, the literature did not provide any distinctively different outcomes related to those additional interventions.

Theory

In 1990, Boyer's publication, *Scholarship Reconsidered*, challenged the traditional view that research and publication were the only legitimate form of accomplishment by academicians. Rather, Boyer (1997) proposed that there were four areas of scholarship, each essential to academic work. These are the scholarship of discovery (original research), teaching, application, and integration. The scholarship of teaching is the integration of the teacher's knowledge into what works well for the student's learning. This is not simply teaching, but developing innovative ways to teach and evaluate, advancing or specializing in specific areas of knowledge, and by professional role modeling. The principles found in the scholarship of teaching work as a solid theoretical framework for this EBP project.

The development of innovative teaching and evaluation methods is one of the focus areas with Boyer's Scholarship of Teaching. This was the primary goal of the FD workshop; to improve the ways in which clinical faculty evaluate the students. By introducing to the faculty at the selected Midwestern school of nurse anesthesia what the best practices are, the faculty are pursuing one avenue of scholarship (see Appendix D). A short workshop best fit the schedule of the selected Midwestern school of nurse anesthesia faculty and resembles the faculty development day described by James (2004) whom also used the scholarship of practice portion of Boyer's model as framework for a FD workshop. While the EBP project utilizes the

scholarship of teaching as a framework for a faculty development workshop, James demonstrates how other components of Boyer's model can impact a larger FD program.

Methods

IRB Approval, Site Approval, Ethical Issues, Funding

An application was submitted to the UMKC institutional review board (IRB) for non-human subjects research and was approved August 4, 2015 (see Appendix E for IRB approval letter). The UMKC IRB was the primary IRB site for two reasons. First, the UMKC IRB must approve all the affiliated hospital's research, and second, all the selected Midwestern school of nurse anesthesia faculty are also UMKC faculty. The application was submitted as non-human subjects research due to the nature of the project (U.S. Department of Health & Human Services, 2010). The Director of Anesthesia at the affiliated hospital and the Director of Education, at the selected Midwestern school of nurse anesthesia, gave approval for the EBP project and research to take place.

Any research has ethical implications, even if they are minor. The primary ethical matter related to this project was the privacy of the faculty involved in the project. Because the pre/post-test design and purpose of the questionnaire required personal reflection and information related to each instructor's individual methods of teaching, the data will be considered highly sensitive. Care was taken to ensure the data was handled with the utmost confidentiality and anonymity.

To offset some of the financial burdens to the selected Midwestern school of nurse anesthesia, participants were asked to pay a small, reimbursable fee, to cover the cost of the CEU. All CRNA faculty receive an allowance of money to be used each year towards continuing education and other work-related expenses. While asking the participants to

contribute money for the workshop was a barrier, it was not a significant barrier as the money is reimbursable.

Setting & Participants

The FD workshop took place at the selected Midwestern school of nurse anesthesia and a UMKC support organization venue. The pre and post-tests were administered electronically via Record Electronic Data Capture (REDCap), a secure online web application that can manage and organize survey data (Harris et al., 2009). This made it possible for the participant to complete the survey at the place of their choosing. This allowed for privacy while participants self-reflect by answering the questionnaire.

The target population was nurse anesthesia faculty. However, the accessible population for this project was nurse anesthesia faculty at the selected Midwestern school of nurse anesthesia. *Per diem* staff was excluded from the study for a convenience sample of up to 35 participants. Of those 35 potential participants, 30 faculty members attended at least one of the education sessions. A pilot study design was employed due to small sample size (see Appendix F for overview of project in a logic model format).

EBP Intervention

A FD workshop focusing on the clinical evaluation of students was the intervention implemented. Faculty who participate in FD programs have high levels of satisfaction and fulfillment, positive attitude changes towards teaching, improvement in teaching knowledge and skills, and change in teaching behaviors (Steinert et al., 2006b). Success in these programs has been demonstrated with a variety of methods; short seminars, one-day workshops, longitudinal programs, etc. (Sorinola & Thistlethwaite, 2013; Steinert et al., 2006b). The FD workshop had two components. The first is a formal 60-minute lecture on clinical evaluation of students. The

second component was an evening session during the typical work-week. These will include methods shown to have been highly rated by participants in other programs; interactive exercises and small group discussions/sharing experiences (Sorinola & Thistlethwaite, 2013).

Recruitment procedures. Recruitment for the study began immediately following IRB approval. Emails, facilitated by the department's administrative assistant, informing faculty of the study were the primary form of recruitment. Verbal recruitment by the graduate student investigator was used to clarify any questions regarding the methods or purpose of the study.

Data collection. The survey tool was created in REDCap and distributed to all staff via email before the FD workshop. Implementation of the workshop required the assistance of the graduate student investigator, department administrative assistant, and guest speakers. Data was collected in a simple table format (see Appendix G for Data Collection Tool).

Participant time. The pre- and post-test consists of 13 questions, so the time to take the test is was approximately 15 minutes. The first lecture will be one hour in length and the evening education session will be three hours; offering two hours worth of CEs. The survey will then be repeated twice, which will take approximately another 30 minutes. Total time can be estimated at 4.5 hours.

Timeline and procedure. The survey was distributed upon IRB approval during the summer 2015 semester. The first session of the FD workshop was held on August 20, 2015. A guest lecturer came to the selected Midwestern school of nurse anesthesia and presented a short lecture on clinical evaluation of students during the schools regularly scheduled morning conference. The evening session was held on August 27, 2015. This consisted of a meal and time to share ideas and discuss the topic of clinical evaluation. Then a second guest lecturer presented a 60-minute lecture on evidence-based practices in student evaluation. In the next 60-

minutes, small groups were formed and faculty practiced were given clinical evaluation scenarios apply and practice their new knowledge. The first post-test was sent out eight weeks after the evening session and the second post-test was sent out eight weeks after the first post-test. Data and statistical analysis then followed (see Appendix H for Intervention Implementation).

Change process, EBP

The change model that best fit the project is the Kotter and Cohen's model of change. This theory speaks to the concept of "buy-in." To have a successful FD program, the buy-in from the faculty must exist. It focuses on empowering the organization and removing barriers that disempower individuals (Kotter & Cohen, 2002). Part of the model is "team selection" (Melnyk & Fineout-Overholt, 2012) which is very fitting for a FD program. Faculty must work as a team to provide the best education for the students. Many faculty members were already excited about a FD program and helped influence individuals who lacked enthusiasm.

The evidence-based practice model that best fit the nature of the project is the Stetler Model of Evidence-Based Practice. Because of its logical arrangement and emphasis on critical thinking (Stetler, 2001), this framework is the best option for a non-clinical focused project. While the primary focus is validated research, the Stetler Model also allows for research as a process (Stetler, 2001). Because this method focuses on problem-solving and critical thinking, the individual components of a research method are utilized in addition to the research itself (Stetler, 2001). This is useful as much of the research on faculty development is specific to the structure of each program studied thus parallels among the research can easily be drawn.

Study Design

Randomization was not an option as the FD workshop is to be open to all staff, and a control group was not achievable. A pre-test and post-test design was used. Due to the small sample size, a pilot study was employed.

Validity

Because randomization is not feasible in this setting, other methods attempting to control for internal validity were utilized. Homogeneity will be employed, as all participants are clinical instructors at the same institution. All participants teach the same students, and all participants utilize the same daily clinical evaluation form to document a student's progress. The testing process and the tool used can be threats to internal validity as the pre-test has an influence individual's post-test answers (Polit & Beck, 2012). Attrition and maturation were not factors in this experiment due to the short timeline. Due to the nature of a pilot study, the accessible population, and the varied nature of the FD workshop, external validity was limited.

Outcomes

The primary outcome for the EBP project was for participants to have higher post-test score on the evaluation and performance assessment portion of the survey tool created for the ATA CIECP (Bridges et al., 2013) after attending the FD workshop. The scores on this tool directly reflected a change in instructors' behaviors in student evaluation. If the participants change their behaviors based on what they have learned in the workshop, it indirectly reflected an increase in knowledge. With increased post-test scores on the ATA CIECP, the FD workshop design will be considered effective for faculty at the selected Midwestern school of nurse anesthesia and used in the future.

Measurement instruments.

The survey tool created for the ATA CIECP has six sections (Bridges et al., 2013). The fourth section is the most pertinent to this EBP project and served as the pre and post-test. It directly speaks to the subject of evaluation and performance assessment. This portion of the survey was utilized (see Appendix I for pre and post-test). Bridges et al., (2013) tested the tool for validity and reliability and found using Cronbach's alpha coefficients calculation that the tool has good internal consistency and reasonable reliability. One limitation of this tool is that only content validity was established, not construct validity due to the small sample size.

The pre-test was administered before the FD workshop, and two post-tests were administered eight weeks and 16 weeks following the evening education session. It was administered via REDCap and anonymous in nature. Permission to use the tool was given by the author of the tool via email communication (see Appendix J).

Quality of Data.

One issue with the quality of the data collected is that there is a finite number of maximum participants (35 full or part-time clinical faculty members at the selected Midwestern school of nurse anesthesia) and the participation in this study was completely voluntary. Due to the nature of a pilot study, power analysis does not apply. Several other factors may have affected scores on the pre/post-tests. These are factors such as observer's presence and response-set bias that could skew results (Polit & Beck, 2012). It is also difficult to compare results to benchmark data as no two FD programs are exactly alike. Much of the evidence used to support this project is found from other clinical disciplines besides nurse anesthesia.

Analysis Plan (Statistical)

Due to the pre/post-test design, a one sample t-test will be needed to analyze the data (see Appendix J for Data Collection Tool). An attempt was made to assign an anonymous identifier

to participants pre and post tests so that a paired t-test could be utilized. However, due to poor participation, overall survey scores and individual question scores were compared. A statistician from UMKC verified the statistical analysis. Data was collected and measured before the workshop took place, at eight weeks, and 16 weeks after the workshop.

Results

Setting, Participants and Intervention Course

As previously mentioned, there were 35 eligible faculty members to participate in the FD educational sessions. Of those 35 faculty members, 30 participated in one or both education sessions. Twenty-one faculty members completed the pre-test survey. The first education session was offered during the regularly scheduled morning conference that occurs most weekdays; the most convenient option for faculty. At this session a UMKC faculty member gave a one-hour presentation on how to evaluate an underperforming student. Attendance at this session was 26 faculty members.

The second education session was offered one week later during the evening with a meal provided. An after-hours meeting is common once a year but usually the attendance is decreased. At this session, a UMKC faculty member presented a one-hour presentation on evidence-based clinical evaluation practices and a one-hour interactive small group session. During the small group session, faculty were asked to practice these evidence-based clinical evaluation practices using sample scenarios. Attendance at this session was 10 faculty members.

Only 15 faculty members completed the firsts post-test survey and 12 faculty members completed the second post-test survey. As part of the survey, an attempt was made to link anonymously each participant's data across all three surveys. Participants were asked to enter

the last two digits of their social security number and the first two letters of their father's first name. Only two faculty completed all three surveys so paired data analysis was not completed.

Outcome Data by Sub-Topic

The desired outcome was to have increased post-test scores when compared to the pre-test scores. When comparing the pre-test survey scores to the first post-test, scores for all but one question on the post-test survey were higher. However, none of the questions showed an increase in score high enough to demonstrate statistical significance (see Appendix K for statistical analysis). All the scores on the second post-test survey were higher when compared to the pre-test survey. However, only scores on three questions showed an increase high enough to be considered statistically significant (see Appendix L). These three questions addressed documentation of the students' progress and the students' participation in their formative assessment. These three questions helped to guide the future of this evidence-based project into the future.

Discussion

Successes, Most important

The most significant success is this study is showing that there was statistical significance in two areas after the education sessions. Due to the small sample size and low participation in survey completion, any statistical significance is a positive outcome. Also, the data appears to move in a positive direction with an overall increase in scores on both post-tests.

Study strengths

Because the affiliated hospital and the selected Midwestern school of nurse anesthesia are both teaching institutions, faculty are accustomed to continuing education that is above and beyond normal delivery of patient care. This culture helps to facilitate the study and create

motivation for faculty to participate. One of the greatest strengths of this study was the convenience of the first educational offering. Based on the attendance, 26 faculty members for the morning education session and only 10 for the evening, after-hours session, it is clear that convenience and accessibility were factors in the higher participation of the first session. So while faculty are motivated to learn and improve, convenience outweighs the time constraints of the day to day workload.

Results compared to the evidence in the literature

Because every institution is different, it is difficult to compare this study directly to those found in the literature. The results of this study are very similar to results found in the literature. Many of the studies focus on faculty satisfaction rather than change or improvement of faculty's practices (Jackevicius et al., 2014; James, 2004; Reamy et al., 2012; Sarikaya et al., 2010; Sirhan & Triviño, 2012; Thorndyke et al., 2008). While faculty satisfaction was not specifically measured in this study, anecdotal indications suggest faculty were overall highly satisfied with the education sessions. Similar to this pilot study, several studies had self-assessment as the primary means to measure behavioral changes in teaching practices (Cole et al., 2004; Reamy et al., 2012; Sarikaya et al., 2010).

Limitations

Internal validity effects. As previously stated, randomization was not possible for this study, but other methods attempting to control for internal validity were utilized. Homogeneity of faculty remained the greatest factor in maintaining internal validity. While answers on the pre-test survey may have influenced faculty's post-test answers (Polit & Beck, 2012), the fact that there were eight and 16 weeks in between pre-test and post-test surveys may have limited

this bias as faculty may have been less likely to remember their prior answers with an extended period of time in between surveys.

External validity effects. Due to the small size of this study and the specificity of the topic, it is challenging to provide overall generalizability to clinical education as a whole. However, within the milieu of clinical nurse anesthesia education, setting and participants may be similar enough to have generalizable results. Because the COA requires all doctoral programs to offer faculty development for continuing education credit, this study may provide some guidance for other programs which may be starting a FD program.

Sustainability of effects and plans to maintain effects. To keep the momentum of this project moving forward, innovation was required. Based on the survey results, the three statistically significant areas focused on documentation of the student's progress and how the student could participate as well. To address those issues and to apply the evidenced-based clinical evaluation practices presented in the FD education sessions, new clinical evaluation tools were created specific to five levels of SRNA training. In addition, this tool was placed in an online format so that faculty can easily complete daily evaluations at their convenience. SRNAs get more timely responses from faculty and can see feedback more readily. The new tool was implemented in the second-year cohort of SRNAs (see Appendix M).

Efforts to minimize the study limitations. Given the nature of a pilot study, limitations are to be expected. To minimize limitations, would limit the entire study from occurring. In this case, the purpose of this study was to guide the development of future FD education sessions and while also encouraging a change in faculty's behaviors. This study also sets the stage for future studies on faculty and student satisfaction and clinical tool validation.

Interpretation

Expected and actual outcomes. The FD evening session was very interactive and most relevant to the clinical education practices. However, due to the low participation, the impact it had may not have been as large had more faculty been able to participate. In addition, all but one the question on the survey showed an improvement in score from pre-test to post-tests, had there been greater participation in survey completion, there may have been more statistical significance. The second post-test offered 16 weeks after the education sessions only had 12 responses. This happened to fall during winter break and the holidays. Several faculty members were on vacation and not present to receive the email with the link to the post-test survey.

Intervention's effectiveness and potential revisions. Because the survey tool is not specific to nurse anesthesia education, it may not reflect changes in clinical evaluation practices fully. One modification that would make the FD education sessions more effective would be to have future sessions during the morning conference time in which most faculty meetings are held. This is currently the future plan.

Expected and actual impact on health system, costs, and policy. This intervention does not directly affect the healthcare system or health policy. However, the education of future nurse anesthetists can have an impact on patients and patient outcomes. To provide high-quality education to future CRNAs will promote high-quality patient care (Horton, 2003). It is too early to assess the impact a FD program will have on faculty retention rates, but this may be an area that is impacted by this intervention.

Opportunities.

This EBP project lays groundwork for future projects and interventions. As previously mentioned, this is part of a larger FD program. Other topics for the future will include clinical instruction and curriculum. In addition, plans are underway to assess faculty and student

satisfaction with the new clinical evaluation tools and possibly a study to validate the tool itself utilizing high-fidelity simulation.

Conclusions

The proposed EBP project fulfills a requirement by the COA, but it also fulfills a need for the selected Midwestern school of nurse anesthesia. Faculty have long voiced the desire to have more opportunities for FD. As a doctoral program, the goal is to teach evidence-based practices in anesthesia and also to utilize them. By instituting an evidence-based FD workshop, as part of a larger FD program, faculty will benefit from enriching their clinical teaching and evaluation practices. They will also be able to set a good example for the student they teach by implementing evidence-based practices. Based on the results of this study, the student investigator will determine how to enhance further the faculty's learning. This pilot study will be presented at the Missouri Association of Nurse Anesthetists spring conference as a poster and 20-minute oral presentation. This may shape future programs at other nurse anesthesia schools as more school implement the COA's new requirements.

References

- American Association of Colleges of Nursing. (2014, August 18). Nursing faculty shortage fact sheet. Retrieved from <http://www.aacn.nche.edu/media-relations/FacultyShortageFS.pdf>
- Balmer, D., D'Alessandro, D., Risko, W., & Gusic, M., E. (2011). How mentoring relationships evolve: A longitudinal study of academic pediatricians in a physician educator faculty development program. *Journal of Continuing Education in the Health Professions, 31*(2), 81–86. <http://doi.org/10.1002/chp.20110>
- Boyer, E. L. (1997). *Scholarship reconsidered: Priorities of the professoriate* (1 edition). Princeton, N.J.: Jossey-Bass.
- Bridges, P., H., Carter, V., Rehm, S., Tintl, S. Bowers, Halperin, R., Kniesly, E., & Pelino, S. (2013). Development of an instrument to measure the use of behaviors taught in the American Physical Therapy Association Clinical Instructor Education and Credentialing Program (APTA CIECP): A pilot study. *Work, 44*(3), 283–295. <http://doi.org/10.3233/WOR-121505>
- Certified Registered Nurse Anesthetists at a Glance. (2015). Retrieved from <http://www.aana.com/ceandeducation/becomeacrna/Pages/Nurse-Anesthetists-at-a-Glance.aspx>
- Cole, K. A., Barker, L. R., Kolodner, K., Williamson, P., Wright, S. M., & Kern, D. E. (2004). Faculty development in teaching skills: An intensive longitudinal model. *Academic Medicine, 79*(5), 469–480.
- CRNAs are the primary anesthesia providers in rural Missouri. (2015). Retrieved from <http://everhadgas.com/crnas-are-the-primary-anesthesia-providers-in-rural-missouri>

- DeStephano, C. C., Crawford, K. A., Jashi, M., & Wold, J. L. (2014). Providing 360-degree multisource feedback to nurse educators in the country of Georgia: A formative evaluation of acceptability. *The Journal of Continuing Education in Nursing, 45*(6), 278–84. <http://doi.org/http://dx.doi.org.proxy.library.umkc.edu/10.3928/00220124-20140528-03>
- Dhaliwal, J. S., Crane, L. A., Valley, M. A., & Lowenstein, S. R. (2013). Student perspectives on the diversity climate at a U.S. medical school: The need for a broader definition of diversity. *BMC Research Notes, 6*(1), 154. <http://doi.org/10.1186/1756-0500-6-154>
- DiLorenzo, T. M., & Heppner, P. P. (1994). The role of an academic department in promoting faculty development: Recognizing diversity and leading to excellence. *Journal of Counseling and Development : JCD, 72*(5), 485.
- Elzubeir, M. (2011). Faculty-led faculty development: Evaluation and reflections on a distributed educational leadership model. *Saudi Journal of Kidney Diseases and Transplantation, 22*(1), 90.
- Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap)—A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics, 42*(2), 377–381. <http://doi.org/10.1016/j.jbi.2008.08.010>
- Henrichs, B. (2009). *A resource for nurse anesthesia educators*. Park Ridge, IL: AANA Publishing.
- Horton, B. J. (2003). The importance of mentoring in recruiting and retaining junior faculty. *AANA Journal, 71*(3), 189–195.

- Jackevicius, C. A., Le, J., Nazer, L., Hess, K., Wang, J., & Law, A. V. (2014). A formal mentorship program for faculty development. *American Journal of Pharmaceutical Education*, 78(5). <http://doi.org/10.5688/ajpe785100>
- James, K. M. (2004). Bridging the gap: Creating faculty development opportunities at a large medical center. *Journal of Continuing Education in Nursing*, 35(1), 24–26.
- Kotter, J. P., & Cohen, D. S. (2002). Creative ways to empower action to change the organization: Cases in point. *Journal of Organizational Excellence*, 22(1), 73–82. <http://doi.org/10.1002/npr.10055>
- Liben, S., Chin, K., Boudreau, J. D., Boillat, M., & Steinert, Y. (2012). Assessing a faculty development workshop in narrative medicine. *Medical Teacher*, 34(12), e813–819. <http://doi.org/10.3109/0142159X.2012.714876>
- Melnyk, B. M., & Fineout-Overholt, E. (2012). *Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice* (2nd ed.). Lippincott Williams & Wilkins.
- Morin, K. H., & Ashton, K. C. (2004). Research on faculty orientation programs: Guidelines and directions for nurse educators. *Journal of Professional Nursing*, 20(4), 239–250. <http://doi.org/10.1016/j.profnurs.2004.05.005>
- Polit, D. F., & Beck, C. T. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Lippincott Williams & Wilkins.
- Reamy, B. V., Williams, P. M., Wilson, C., Goodie, J. L., & Stephens, M. B. (2012). Who will be the faculty of the future? Results of a 5-year study growing educators using an immersive third postgraduate year (PGY-3) faculty development mini-fellowship. *Medical Teacher*, 34(6), e459–e463. <http://doi.org/10.3109/0142159X.2012.668631>

- Sarikaya, O., Kalaca, S., Yegen, B. C., & Cali, S. (2010). The impact of a faculty development program: Evaluation based on the self-assessment of medical educators from preclinical and clinical disciplines. *Advances in Physiology Education*, *34*(2), 35–40.
<http://doi.org/10.1152/advan.00024.2010>
- Sawatzky, J. V., & Enns, C. L. (2009). A mentoring needs assessment: Validating mentorship in nursing education. *Journal of Professional Nursing*, *25*(3), 145–150.
<http://doi.org/10.1016/j.profnurs.2009.01.003>
- Silver, I. L., & Leslie, K. (2009). Faculty development for continuing interprofessional education and collaborative practice. *Journal of Continuing Education in the Health Professions*, *29*(3), 172–177. <http://doi.org/10.1002/chp.20032>
- Sirhan, M., & Triviño, X. (2012). Evaluación de una experiencia de capacitación en planificación educacional para directores de programas de las especialidades médicas. *Revista Médica de Chile*, *140*(4), 530–537. <http://doi.org/10.4067/S0034-98872012000400017>
- Sorinola, O. O., & Thistlethwaite, J. (2013). A systematic review of faculty development activities in family medicine. *Medical Teacher*, *35*(7), e1309–e1318.
<http://doi.org/10.3109/0142159X.2013.770132>
- Starnes-Ott, K., & Kremer, M. J. (2007). Recruitment and retention of nurse anesthesia faculty: Issues and strategies. *AANA Journal*, *75*(1), 13–6.
- Steinert, Y., Mann, K., Centeno, A., Dolmans, D., Spencer, J., Gelula, M., & Prideaux, D. (2006a). A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher*, *28*(6), 497–526. <http://doi.org/10.1080/01421590600902976>

Steinert, Y., Mann, K., Centeno, A., Dolmans, D., Spencer, J., Gelula, M., & Prideaux, D.

(2006b). A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher*, 28(6), 497–526. <http://doi.org/10.1080/01421590600902976>

Stetler, C. B. (2001). Updating the Stetler Model of research utilization to facilitate evidence-based practice. *Nursing Outlook*, 49(6), 272–279.

<http://doi.org/10.1067/mno.2001.120517>

Thorndyke, L. E., Gusic, M. E., & Milner, R. J. (2008). Functional mentoring: A practical approach with multilevel outcomes. *Journal of Continuing Education in the Health Professions*, 28(3), 157–164.

U.S. Department of Health & Human Services. (2010, January 15). Code of Federal Regulations.

Retrieved from <http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html#46.101>

Appendix A
Definition of Terms

Term	Definition
Certified registered nurse anesthetist	Advanced practice nurse who has completed the necessary training in an accredited program of study and passed the National Certification Exam for nurse anesthetists.
Clinical faculty	Faculty who provide instruction in a clinical setting.
Faculty development	Offering to faculty in order to enhance or expand their teaching skills and abilities.
Student registered nurse anesthetist	Registered nurse in training for nurse anesthesia who as not yet taken the National Certification Exam for nurse anesthetists.

Appendix B
Cost Table

	Cost:	Income:
Personnel		
-Guest Speakers		
- UMKC faculty (in-kind donation)	\$0	
- UMKC faculty (in-kind donation)	\$0	
-Administrative Assistant		
\$15/hr x 3 hours	\$45	
Continuing Education Credits submission	\$125	
Venue & Meal		
-affiliated university's scholar's center (free venue)	\$0	
-Catered meal	\$267	
Materials and Supplies		
-handouts, 4 pages x \$0.05 x 32 (estimate)	\$6	
School of Nurse Anesthesia Budget (Faculty Development)		\$125
Affiliated hospital Budget Contribution (personnel)		\$45
CRNA contribution		
-\$25 per person x 10		\$250
Subtotals:	\$443	\$420
NET TOTAL:		-\$23

Appendix C
Review of Evidence Table

First author, Year, Title, Journal	Purpose	Research Design, Evidence Level, Variables	Sample & Sampling, Setting	Measures & Reliability (if reported)	Results & Analysis Used	Limitations & Usefulness
Elzubeir, M. (2011). Faculty-led faculty development: Evaluation and reflections on a distributed educational leadership model. <i>Saudi Journal of Kidney Diseases and Transplantation</i> .	To determine the impact of a faculty-led FD program underpinned by principles of distributed educational leadership.	Descriptive study design. Level VI.	150 program participants filled out questionnaires (100% response rate).	Descriptive statistics for all workshops and qualitative feedback for PBL workshops alone were examined. SPSS Version 12	It was concluded that clinical faculty who are not specialized in medical education can offer high-quality, well-accepted training for their peers.	(-) Small study, generalizability may be affected due to the specific nature of this program to the institution in which it was conducted. (+) Shows that it is possible to use current faculty members to teach FD to their peers.
DeStephano, C. C. (2014). Providing 360-degree multisource feedback to nurse educators in the country of Georgia: A formative evaluation of acceptability. <i>The Journal of Continuing Education in Nursing</i>	Shows effectiveness of multisource feedback (MSF) to improve teaching effectiveness	Quasi-experimental pilot study. Level III.	15 Georgian nurse educators	Author-developed 23-item questionnaire for nurse educators to assess the acceptability of teacher evaluation in the country of Georgia. -Validity and reliability not reported	The current study revealed that MSF was acceptable to nurse educators in a continuing education program in the country of Georgia. - paired t test for comparing the highest and lowest rated sources of feedback and the mean ratings from the video evaluation before and after the faculty development course.	This pilot study lays the groundwork for future studies on MSF.

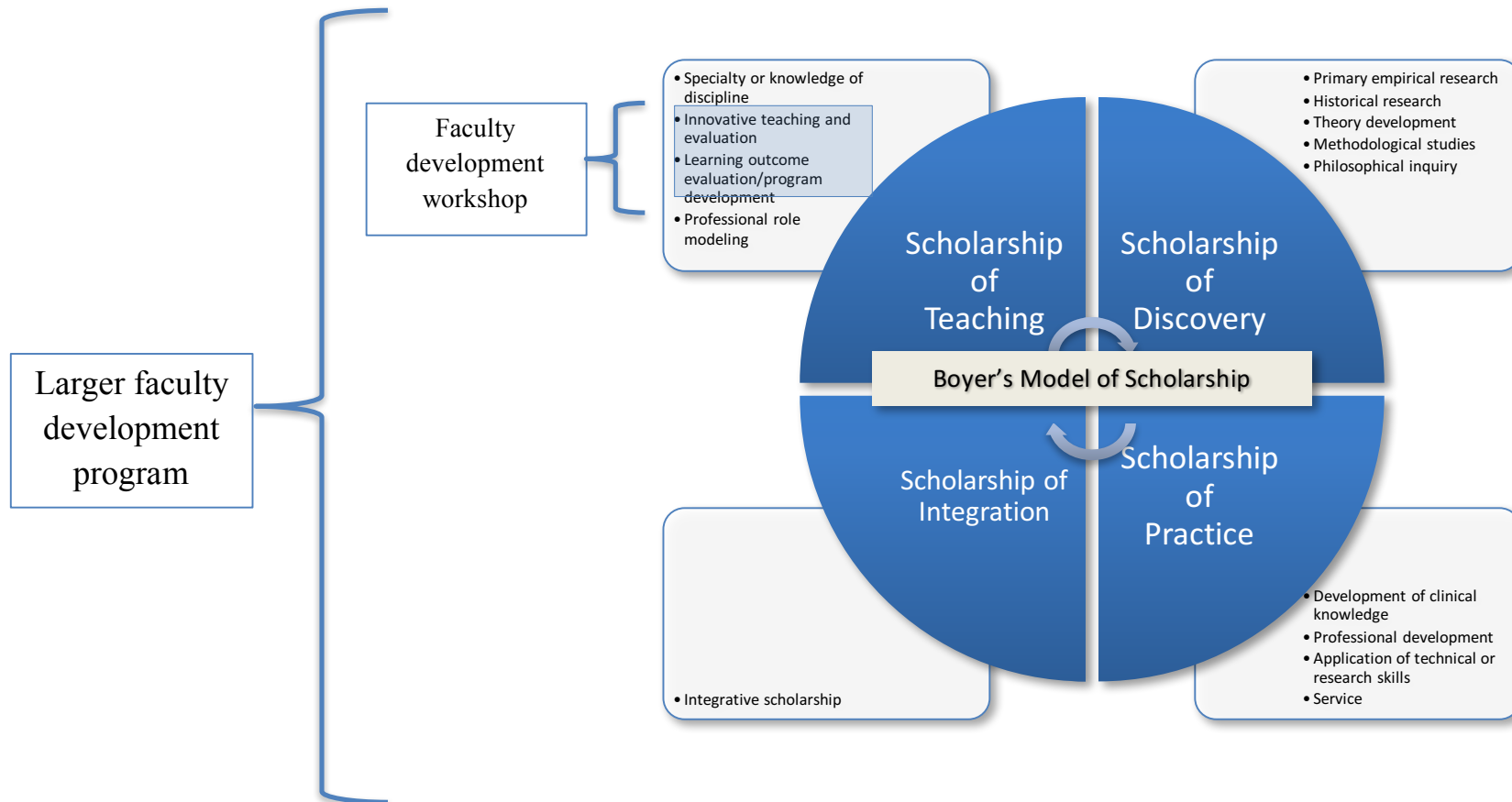
James, K. M. (2004). Bridging the gap: Creating faculty development opportunities at a large medical center. <i>Journal of Continuing Education in Nursing.</i>	Institute a FD in a large academic medical center while collaborating with other nursing schools and examine the results.	Descriptive report on results after implementation of a FD program. Level VII.	40 participants from five different affiliated colleges and universities	None reported.	An organized faculty development day can be most efficient in helping nursing faculty keep current in their practice. Positive evaluations of the program prevailed.	Gives a model for a faculty development program. Shows participant satisfaction
Jackevicius, C. A. (2014). A Formal Mentorship Program for Faculty Development. <i>American Journal of Pharmaceutical Education.</i>	To describe the development, implementation, and evaluation of a formal mentorship program at a college of pharmacy.	Descriptive study. Level VI.	51 faculty mentor/protégé pairs in a school of pharmacy	None reported.	This mentorship program had high satisfaction reported from participants (subjective) and an objectively measured increase in the total number of peer-reviewed journal publications. Mentoring should be a component of a faculty development program.	(-) self reported assessments (+)
Reamy (2012). Who will be the faculty of the future? Results of a 5-year study growing educators using an immersive third postgraduate year (PGY-3) faculty development mini-fellowship	To enhance the teaching skills of selected PGY-3 residents and study outcomes over 5 years.	Cohort study Level IV	15 residents over the course of 5 years	None reported.	Even small focused teaching interventions can improve the academic skills and aptitudes of residents.	(-) Small study, bias may be an issue in evaluation of the residents participating (+) Shows short term success of FD
Cole, K. A. (2004). Faculty development in teaching skills: An intensive longitudinal model. <i>Academic Medicine</i>	Description of a FD program with evaluation by participants compared to non-participant group.	Quasiexperimental, pre–post study design. Level III.	100 eligible participants and 128 eligible nonparticipants of the FD program	Multivariate regression modeling.	Program participation was associated with pre–post improvement in all outcomes except administration skills, controlling for all participant and	(-) Participants were not randomized. (+) Study is comprehensive, includes a comparison group, utilizes multivariate

					nonparticipant baseline characteristics.	modeling, and has a high response rate.
Sirhan, M. (2012). Evaluación de una experiencia de capacitación en planificación educacional para directores de programas de las especialidades médicas. <i>Revista médica de Chile</i>	To describe and evaluate a training program in the curriculum development for program directors.	Descriptive, retrospective and cross-sectional study. Level VI.	30 program directors completed an evaluation questionnaire after completed a FD program.	Statistical Package for Social Sciences (S PSS version 11.0) was used for statistical analysis. Wilcoxon test was used to analyze differences in indicators retrospectiv e pre-post questionnai re.	This model of faculty development was highly accepted and had a positive evaluation based in high satisfaction, the improvement in pre / posttest assessment, the achievement of learning objectives	(-) Design does not assess learner (taught by program directors) outcomes (+) Showed a positive training experience in educational planning and study design and evaluation can provide guidance to develop similar interventions that contribute to teaching and of other FD programs.
Sarikaya, O. (2010). The impact of a faculty development program: Evaluation based on the self-assessment of medical educators from preclinical and clinical disciplines. <i>Advances in Physiology Education.</i>	To evaluate the impact of a faculty-training program on the teaching performances of faculty members in relation to their medical disciplines and academic positions	Quasi-Experimental Level III	118 faculty members who had participated in training skills course, 107 who had participated in the student assessment instrument course. Marmara University School of Medicine 1-2 yr after participation	None reported.	Nearly all participants found the programs to be beneficial.	Shows long-term benefit.
Liben, S. (2012). Assessing a faculty development workshop in narrative medicine.	To assess the impact and outcomes of a faculty development	Qualitative design. Level VI.	10 clinical teachers who had attended a faculty development workshop and 9 who had not.	None reported.	Both groups reported that they used narrative in both their teaching and clinical practice, but those who had attended the	(-) Small sample size, participants are already those who are more

<i>Medical Teacher.</i>	workshop on narrative medicine				workshop articulated a more nuanced understanding of narrative terms compared to those who had not yet attended.	willing to be teachers. (+) This study has clear, measurable outcomes.
Silver, I. L. (2009). Faculty development for continuing interprofessional education and collaborative practice. <i>Journal of Continuing Education in the Health Professions.</i>	To provide a framework for a FD program in continuing interprofessional education and collaborative practice.	Program recommendations based on synthesis of literature. Level VII.	n/a	None reported.	FD can play an essential role in enhancing interprofessional collaboration but very careful and strategic planning is needed to do so.	Gives recommendations based on literature and provides a solid framework for a faculty development program. Allows for generalization and conveys common themes in the literature that can be applied to individual settings.
Thorndyke, L. E. (2008). Functional mentoring: A practical approach with multilevel outcomes. <i>Journal of Continuing Education in Health Professions.</i>	To utilize a mentorship program as a means of professional development for faculty and assess the outcomes that demonstrate successful mentorships.	Cohort study. Level IV.	165 faculty over 4 years	None reported	A functional, focuses mentoring program is successful and measurable outcomes can be obtained.	(-) This framework was specific to the needs of the faculty at this facility (i.e. project facilitation). (+) Shows that outcomes can be measured when they are specific to the program initiated.
Balmer, D. (2011). How mentoring relationships evolve: A longitudinal study of academic pediatricians in a physician educator faculty development program. <i>Journal of</i>	To examine how mentoring relationships evolve over time within a FD context.	Longitudinal study. Level VI.	30 of 37 scholars in the first 2 cohorts participated in 2007; 19 in 2008; 9 in 2009. 7 scholars participated in all 3 focus groups.	Transcripts were entered into and managed by ATLAS.ti (Scientific Software	Functional mentoring is useful in FD.	(-) Bias may of occurred due to volunteerism and poor participation in the last focus group.

<p><i>Continuing Education In Health Professions</i></p>				<p>Development GmbH, Berlin) a qualitative data analysis software program</p>		
<p>Steinert, Y. (2006). A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education. <i>Medical Teacher</i>.</p>	<p>Synthesize current evidence on what the effects are of faculty development (FD) on knowledge, attitudes and skills of teachers in medical education</p>	<p>Systematic review. Level V</p>	<p>53 papers met criteria</p>	<p>Study quality was rated on a 5 point scale</p>	<p>High level of faculty satisfaction. Positive changes in attitudes about teaching. Reported increased knowledge and skills. Positive changes in teaching practices occurred.</p>	<p>Most recent articles from 2004. Synthesis of data is useful. Addresses common themes and outcomes in FD research.</p>
<p>Sorinola, O. O. (2013). A systematic review of faculty development activities in family medicine. <i>Medical Teacher</i>.</p>	<p>To assess the evidence for the effectiveness of family medicine FD activities over the last 30 years</p>	<p>Systematic review. Level V</p>	<p>46 fulfilled the search criteria and were reviewed across three domains: (a) Context, i.e. setting, participation and funding. (b) Content/Process, i.e. theoretical framework, focus of intervention/learning outcomes, types of FD intervention and instructional methods. (c) Evaluation using Freeth et al's adaptation of Kirkpatrick's outcome levels</p>	<p>Study quality was measured on a 5-point scale.</p>	<p>FD activities appear highly valued by the participants, leading to changes in learning and behavior. Used narrative synthesis based on a theoretical framework of adult learning principles.</p>	<p>There were limited study designs analyzed and Factors with the most impact on the success of FD initiatives (in family medicine): having work-based training, flexibility and adaptability, evaluation for quality improvement, and funding.</p>

Appendix D
Theory to Application Diagram



Appendix E IRB Approval Letter



UMKC
5319 Rockhill Road
Kansas City Missouri
TEL: 816 235-5927
FAX: 816 235-5602

NOT HUMAN SUBJECTS RESEARCH DETERMINATION

Principal Investigator: Renee Endicott
PO Box 92
Harrisonville, Missouri 64701

Protocol Number: 15-360
Protocol Title: Influence of a Faculty Development Workshop on Clinical Evaluation Practices in a Nurse Anesthesia Program
Type of Review: Not Human Subjects Determination

Date of Determination: 08/04/2015

Dear Ms. Endicott,

The above referenced study, and your participation as a principal investigator, was reviewed and determined to be Not Human Subjects Research (NHSR). As such, your activity falls outside the parameters of IRB review. You may conduct your study, without additional obligation to the IRB, as described in your application.

The NHSR Determination is based upon the following Federally provided definitions:

"Research" is defined by these regulations as " a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge."

The regulations define a **"Human Subject"** as "a living individual about whom an investigator (whether professional or student) conducting research obtains: data through intervention or interaction with the individual, or identifiable private information."

All Human Subjects Research must be submitted to the IRB. If your study changes in such a way that it becomes Human Subjects Research please contact the Research Compliance office immediately for the appropriate course of action.

Please contact the Research Compliance Office (email: umkcirb@umkc.edu; phone: (816)235-5927) if you have questions or require further information.

Thank you,
UMKC IRB
UMKC IRB Administrative Office

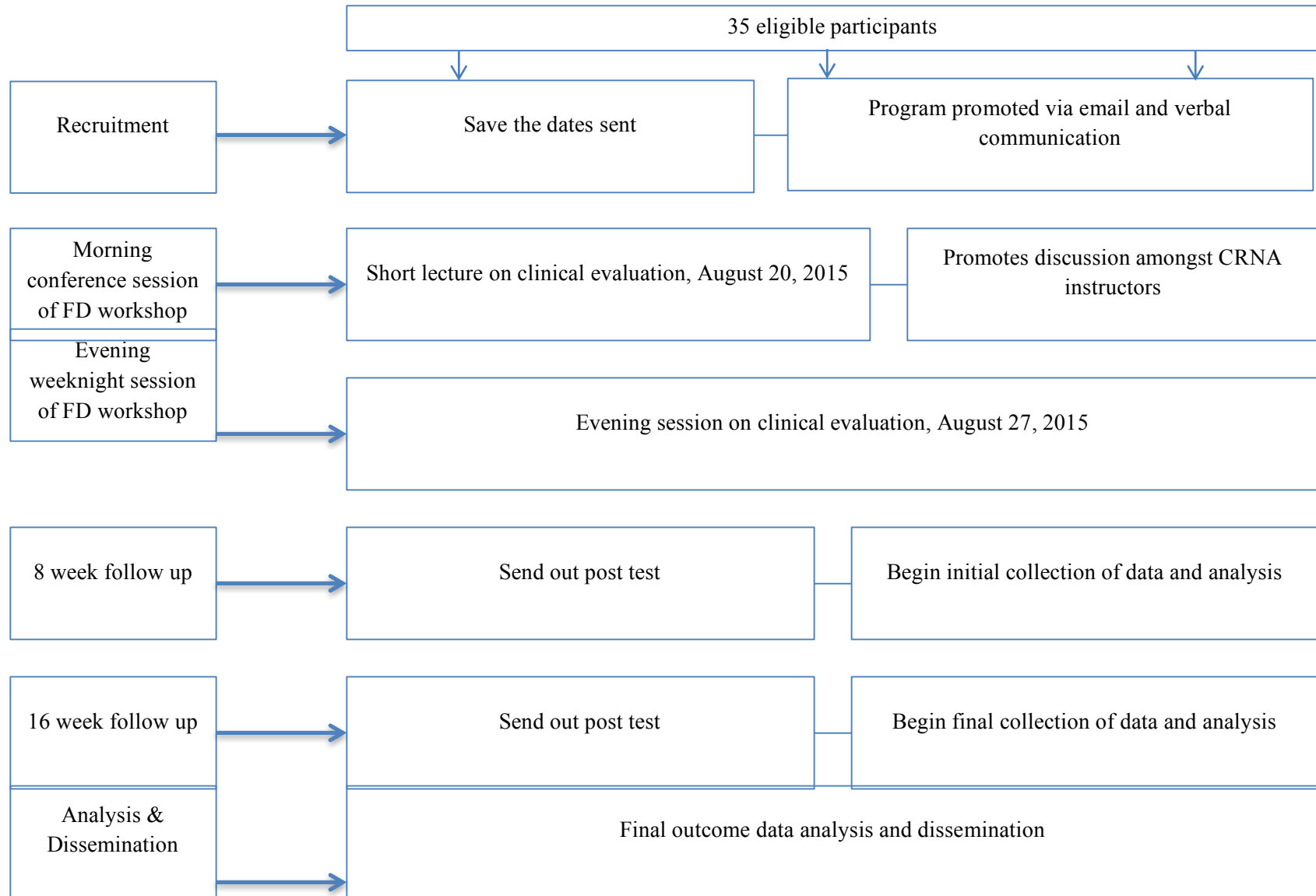
Appendix F
Logic Model

Inputs	Intervention(s) <i>Activities</i>	Outputs <i>Participation</i>	Outcomes -- Impact		
			<i>Short</i>	<i>Medium</i>	<i>Long</i>
<p><u>Evidence/Sub-topics:</u> -FD models in academic medicine and other clinical education environment -Expert opinion of DNP project mentor -Models for faculty mentorship -Models for faculty scholarship</p> <p><u>Major Facilitators or Contributors:</u> Faculty participants -Clinical Professors -Clinical associate professors -Clinical instructors -Director of Anesthesia -Director of Education</p> <p><u>Major Barriers or Challenges:</u> -Financial cost of speakers, venue, CEUs, participation of non-DNP faculty</p>	<p><u>The EBP intervention which is supported by the evidence in the Input column:</u> Faculty development workshop (as part of a FD program) on student evaluation</p> <p><u>Major steps of the intervention:</u> -Secure speakers for workshop and meeting facility -Set a date convenient for speakers and faculty -Submit for CEUs</p>	<p><u>The participants:</u> Midwestern school of nurse anesthesia faculty</p> <p><u>Site:</u> Midwestern school of nurse anesthesia, UMKC support organization venue</p> <p><u>Time Frame:</u> IRB approval and project proposal Summer 2015 FD Seminar Fall 2015 -August 20 AM session -August 27 PM session Data collection and analysis 8 & 16 weeks post workshop</p> <p><u>Consent Needed:</u> Consent of participants needed.</p> <p><u>Person(s) collecting data:</u> -DNP student -Administrative assistant</p> <p><u>Others directly involved:</u> -Speakers for program: UMKC faculty (2) -Statistician -Administrative assistant for anesthesia department</p>	<p>-Increase in knowledge and change in instructors' evaluative practices.</p> <p><u>Measurement tools:</u> Survey tool developed by <i>American Physical Therapy Association Clinical Instructor Education and Credentialing Program</i></p> <p><u>Statistical Analysis:</u> Independent t-test (paired t-test if there is enough paired data)</p>	<p>-Faculty has improved satisfaction with teaching. -Faculty has positive attitude towards teaching and evaluation.</p>	<p>-Improved retention of DNP faculty. -Utilize the selected Midwestern school of nurse anesthesia faculty as facilitators of the faculty development program.</p>

Appendix G
Data Collection Tool

	Pre-test Score	Post-test Score 8 weeks	Post-test Score 16 weeks	Pre-test to Post-test 8 weeks	Pre-test to Post-test 16 weeks
Question					
Q1					
Q2					
Q3					
Q4					
Q5					
Q6					
Q7					
Q8					
Q9					
Q10					
Q11					
Q12					
Q13					
TOTAL:					

Appendix H
Intervention Implementation Plan Flow Diagram



Appendix I

Survey Tool developed for ATA CIECP and adapted for the selected Midwestern school of nurse anesthesia

Pre-test format:

Please rate frequency of use of the following actions. Choose (1) if you never perform the behavior; choose (6) if you always perform the behavior.

1. I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	1	2	3	4	5	6
2. I carefully observe a student to determine his/her individual strengths and weaknesses.	1	2	3	4	5	6
3. I recognize and document the student's progress.	1	2	3	4	5	6
4. I recognize and document the areas where student is meeting the criteria.	1	2	3	4	5	6
5. I recognize and objectively document specific areas of student performance that are unsafe, ineffective or deficient in quality.	1	2	3	4	5	6
6. I provide a summative written evaluation at midterm and at the completion of the clinical education experience.	1	2	3	4	5	6
7. I require student self-assessment at midterm and at the completion of the clinical experience regardless of program expectations.	1	2	3	4	5	6
8. I give prompt and systematic feedback during the clinical experience to further learning and/or modify behavior.	1	2	3	4	5	6
9. I encourage the student to participate in ongoing formative feedback.	1	2	3	4	5	6
10. I use a weekly planning form or similar weekly documentation for every student on every clinical experience.	1	2	3	4	5	6
11. I am aware of my personal biases and therefore base the student ratings on established criteria.	1	2	3	4	5	6
12. I address problems as they arise and document the strategies I used to remediate the problem.	1	2	3	4	5	6
13. I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	1	2	3	4	5	6










Post-test format:

Please rate frequency of use of the following actions. Choose (1) if you never perform the behavior; choose (6) if you always perform the behavior.

1. Since completing the FD workshop, I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	1	2	3	4	5	6
2. Since completing the FD workshop, I carefully observe a student to determine his/her individual strengths and weaknesses.	1	2	3	4	5	6
3. Since completing the FD workshop, I recognize and document the student's progress.	1	2	3	4	5	6
4. Since completing the FD workshop, I recognize and document the	1	2	3	4	5	6

areas where student is meeting the criteria.						
5. Since completing the FD workshop, I recognize and objectively document specific areas of student performance that are unsafe, ineffective or deficient in quality.	1	2	3	4	5	6
6. Since completing the FD workshop, I provide a summative written evaluation at midterm and at the completion of the clinical education experience.	1	2	3	4	5	6
7. Since completing the FD workshop, I require student self-assessment at midterm and at the completion of the clinical experience regardless of program expectations.	1	2	3	4	5	6
8. Since completing the FD workshop I give prompt and systematic feedback during the clinical experience to further learning and/or modify behavior.	1	2	3	4	5	6
9. Since completing the FD workshop, I encourage the student to participate in ongoing formative feedback.	1	2	3	4	5	6
10. Since completing the FD workshop, I use a weekly planning form or similar weekly documentation for every student on every clinical experience.	1	2	3	4	5	6
11. Since completing the FD workshop, I am aware of my personal biases and therefore base the student ratings on established criteria.	1	2	3	4	5	6
12. Since completing the FD workshop I address problems as they arise and document the strategies I used to remediate the problem.	1	2	3	4	5	6
13. Since completing the FD workshop, I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	1	2	3	4	5	6

Appendix J
Permission to Use Survey Tool

Reply Reply All Forward         

RE: Permission to use survey tool

Bridges, Patricia H

To:

Friday, April 10, 2015 1:42 PM

- You replied on 4/27/2015 8:46 AM.

Hi Lindsey,
Please send a letter and I will sign and return it. I will search for the instrumentans send it along with the letter.
Best regards.

Hello Dr. Bridges

I have recently read your publication "Development of an instrument to measure the use of behaviors taught in the American Physical Therapy Association Clinical Instructor Education and Credentialing Program (APTA CIECP): A pilot study" and am writing to you today to ask permission to use your survey tool as a method of measuring faculty's behaviors before and after a faculty development program that I am developing.

I am currently an instructor of nurse anesthesia and am also working on my doctorate of nursing practice. My project is to implement a faculty development program at our institution and the questions in your tool seem very applicable to our clinical teaching in nurse anesthesia.

If I have your permission to use the survey tool, I would need a letter stating permission to use the tool and a copy of the tool itself.

Thank you so much for your time.

LW

Lindsey Wilson, CRNA, MA

Appendix K
Group Statistics of Pre-test and Post-test #1

Pre-test = Survey Identifier 1

Post-test #1 = Survey Identifier 2

	Survey Identifier	N	Mean	Std. Deviation	Std. Error Mean
I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	1	21	4.52	1.327	.290
	2	15	4.53	1.187	.307
I carefully observe a student to determine his/her individual strengths and weaknesses.	1	21	4.76	1.179	.257
	2	15	5.27	.884	.228
I recognize and document the students progress.	1	21	4.43	1.165	.254
	2	15	4.67	1.175	.303
I recognize and document the areas where student is meeting the criteria.	1	21	5.05	.973	.212
	2	15	4.93	1.100	.284
I recognize and objectively document specific areas of student performance that are unsafe, ineffective or deficient in quality.	1	21	4.86	1.062	.232
	2	15	4.93	1.033	.267
I provide a summative written evaluation at midterm and at the completion of the clinical education experience.	1	21	3.67	1.653	.361
	2	15	4.27	1.870	.483
I require student self-assessment at midterm and at the completion of the clinical experience regardless of program expectations.	1	21	3.24	1.786	.390
	2	15	3.87	1.885	.487
I give prompt and systematic feedback during the clinical experience to further learning and/or modify behavior.	1	21	4.81	1.123	.245
	2	15	5.13	1.187	.307
I encourage the student to participate in ongoing formative feedback.	1	21	4.29	1.419	.310
	2	15	4.93	1.163	.300

I use a weekly planning form or similar weekly documentation for every student on every clinical experience.	1	21	3.19	1.834	.400
	2	15	4.07	1.580	.408
I am aware of my personal biases and therefore base the student ratings on established criteria.	1	21	4.57	1.121	.245
	2	15	4.80	1.014	.262
I address problems as they arise and document the strategies I used to remediate the problem.	1	21	4.05	1.465	.320
	2	15	4.80	1.207	.312
I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	1	21	2.67	1.426	.311
	2	15	3.47	1.598	.413

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	Equal variances assumed	.192	.664	-.022	34	.982	-.010	.430	-.883	.864
	Equal variances not assumed			-.023	32.195	.982	-.010	.422	-.868	.849
I carefully observe a student to determine his/her individual strengths and weaknesses.	Equal variances assumed	1.076	.307	-1.399	34	.171	-.505	.361	-1.238	.229

	Equal variances not assumed			-1.468	33.887	.151	-.505	.344	-1.204	.194
I recognize and document the students progress.	Equal variances assumed	.025	.876	-.602	34	.551	-.238	.395	-1.041	.565
	Equal variances not assumed			-.601	30.153	.552	-.238	.396	-1.046	.570
I recognize and document the areas where student is meeting the criteria.	Equal variances assumed	1.233	.275	.329	34	.744	.114	.347	-.592	.820
	Equal variances not assumed			.322	27.931	.750	.114	.355	-.612	.841
I recognize and objectively document specific areas of student performance that are unsafe, ineffective or deficient in quality.	Equal variances assumed	.192	.664	-.215	34	.831	-.076	.355	-.798	.645
	Equal variances not assumed			-.216	30.831	.831	-.076	.353	-.797	.645
I provide a summative written evaluation at midterm and at the completion of the clinical education experience.	Equal variances assumed	.408	.527	-1.017	34	.316	-.600	.590	-1.799	.599
	Equal variances not assumed			-.996	27.912	.328	-.600	.603	-1.835	.635
I require student self-assessment at midterm and at the completion of the clinical experience regardless of program expectations.	Equal variances assumed	.279	.601	-1.017	34	.316	-.629	.618	-1.884	.627
	Equal variances not assumed			-1.008	29.287	.322	-.629	.624	-1.903	.646
I give prompt and systematic feedback during the clinical	Equal variances assumed	.113	.739	-.833	34	.411	-.324	.389	-1.114	.466

experience to further learning and/or modify behavior.	Equal variances not assumed			-1.825	29.256	.416	-.324	.393	-1.126	.479
I encourage the student to participate in ongoing formative feedback.	Equal variances assumed	1.105	.301	-1.452	34	.156	-.648	.446	-1.554	.259
	Equal variances not assumed			-1.501	33.273	.143	-.648	.431	-1.525	.230
I use a weekly planning form or similar weekly documentation for every student on every clinical experience.	Equal variances assumed	1.703	.201	-1.495	34	.144	-.876	.586	-2.067	.315
	Equal variances not assumed			-1.534	32.708	.135	-.876	.571	-2.039	.287
I am aware of my personal biases and therefore base the student ratings on established criteria.	Equal variances assumed	.005	.944	-.627	34	.535	-.229	.365	-.969	.512
	Equal variances not assumed			-.638	32.028	.528	-.229	.358	-.959	.501
I address problems as they arise and document the strategies I used to remediate the problem.	Equal variances assumed	.862	.360	-1.630	34	.112	-.752	.461	-1.690	.185
	Equal variances not assumed			-1.685	33.221	.101	-.752	.447	-1.661	.156
I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	Equal variances assumed	.204	.655	-1.579	34	.124	-.800	.507	-1.830	.230
	Equal variances not assumed			-1.548	28.097	.133	-.800	.517	-1.858	.258

Appendix L
Group Statistics of Pre-test and Post-test #2

Pre-test = Survey Identifier 1

Post-test #2 = Survey Identifier 3

	Survey Identifier	N	Mean	Std. Deviation	Std. Error Mean
I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	1	21	4.52	1.327	.290
	3	12	4.75	1.288	.372
I carefully observe a student to determine his/her individual strengths and weaknesses.	1	21	4.76	1.179	.257
	3	12	5.00	1.128	.326
I recognize and document the students progress.	1	21	4.43	1.165	.254
	3	12	5.17	.718	.207
I recognize and document the areas where student is meeting the criteria.	1	21	5.05	.973	.212
	3	12	5.25	.622	.179
I recognize and objectively document specific areas of student performance that are unsafe, ineffective or deficient in quality.	1	21	4.86	1.062	.232
	3	12	4.92	1.240	.358
I provide a summative written evaluation at midterm and at the completion of the clinical education experience.	1	21	3.67	1.653	.361
	3	12	4.92	1.379	.398
I require student self-assessment at midterm and at the completion of the clinical experience regardless of program expectations.	1	21	3.24	1.786	.390
	3	12	4.33	1.923	.555
I give prompt and systematic feedback during the clinical experience to further learning and/or modify behavior.	1	21	4.81	1.123	.245
	3	12	5.25	.866	.250
	1	21	4.29	1.419	.310

I encourage the student to participate in ongoing formative feedback.	3	12	5.08	.900	.260
I use a weekly planning form or similar weekly documentation for every student on every clinical experience.	1	21	3.19	1.834	.400
	3	12	3.50	1.834	.529
I am aware of my personal biases and therefore base the student ratings on established criteria.	1	21	4.57	1.121	.245
	3	12	4.67	1.371	.396
I address problems as they arise and document the strategies I used to remediate the problem.	1	21	4.05	1.465	.320
	3	12	4.92	.900	.260
I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	1	21	2.67	1.426	.311
	3	12	3.42	1.443	.417

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
I familiarize myself in advance with the evaluation instrument and the goals and objectives of the academic institution so I know what I am going to be asked to observe.	Equal variances assumed	.058	.811	-.476	31	.638	-.226	.475	-1.196	.743
	Equal variances not assumed			-.480	23.618	.636	-.226	.471	-1.200	.747
I carefully observe a student to determine his/her individual strengths and weaknesses.	Equal variances assumed	.090	.766	-.567	31	.575	-.238	.420	-1.095	.619
	Equal variances not assumed			-.574	23.899	.572	-.238	.415	-1.095	.619
I recognize and document the students progress.	Equal variances assumed	5.404	.027	-1.983	31	.056	-.738	.372	-1.497	.021
	Equal variances not assumed			-2.251	30.737	.032	-.738	.328	-1.407	-.069
I recognize and document the areas where student is meeting the criteria.	Equal variances assumed	.367	.549	-.646	31	.523	-.202	.313	-.841	.436
	Equal variances not assumed			-.728	30.495	.472	-.202	.278	-.770	.365
I recognize and objectively document specific areas of	Equal variances assumed	.135	.716	-.146	31	.885	-.060	.408	-.893	.773

I am aware of my personal biases and therefore base the student ratings on established criteria.	Equal variances assumed	.184	.671	-.216	31	.830	-.095	.440	-.992	.802
	Equal variances not assumed			-.205	19.456	.840	-.095	.465	-1.067	.877
I address problems as they arise and document the strategies I used to remediate the problem.	Equal variances assumed	4.540	.041	-1.857	31	.073	-.869	.468	-1.824	.086
	Equal variances not assumed			-2.109	30.752	.043	-.869	.412	-1.710	-.028
I clearly establish the weekly goals the student is working toward and the objectives to meet those goals.	Equal variances assumed	.085	.773	-1.447	31	.158	-.750	.518	-1.807	.307
	Equal variances not assumed			-1.442	22.792	.163	-.750	.520	-1.826	.326

Appendix M Clinical Evaluation Tool

Clinical Anesthesia III – Fall Semester Junior Year

Peri-anesthesia and Critical Thinking

Pre-anesthesia Assessment

1. Formulates evidence-based anesthetic plan based on findings discovered during a pre-anesthesia assessment for the ASA I-III patient having straightforward or complex procedure.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

2. Recites pharmacokinetic and pharmacodynamics of commonly administered and emergency medications (i.e.- norepi, dopamine, dobutamine, nitroprusside, NTG, Ca+ channel blockers) AND potential drug interactions.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Equipment & Safety

3. Solves equipment problems as they arise.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Airway Management & Induction

4. Demonstrates appropriate and effective speed during routine and emergency procedures (<5 min induction).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

5. Manages a straightforward airway with minimal assistance or difficult airway with assistance.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

6. Demonstrates proper laryngoscopy technique during routine DL, RSI AND specialty tube placement (Nasal tubes, RAE, laser, NIMS) with minimal assistance.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Perioperative Management

7. Exercises vigilance in the delivery of patient care during straightforward cases (e.g. - minimizes distractions).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

8. Utilizes required, non-invasive AND invasive monitors and equipment (e.g.-transport monitors, Level I rapid infuser, epidural pump, PCA pump, invasive pressure monitors).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

9. Manages moderate complications of anesthesia with prompting/assistance (e.g.-HTN d/t tourniquet pain).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

10. Responds effectively to physiological changes during anesthesia in straightforward cases (e.g.-changes to pressure control upon insufflation of abdomen, volume replacement in SAB).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

11. Selects appropriate fluids, colloids, and blood products for the patient and procedure.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

12. Demonstrates appropriate emergence technique with assistance.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Critical Thinking/Decision Making

13. Demonstrate critical thinking and decision making abilities appropriate for clinical level.

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Communication

14. Demonstrates effective communication for safe patient care during handoff including critical information and actions (e.g.-PACU, ICU, relief).

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT FAIL TO MEET N/A

Professional Role & Accountability

15. Displays initiative, punctuality and appropriate work ethic.

MEETS EXPECTATIONS DOES NOT MEET EXPECTATIONS

16. Displays engagement in clinical instruction and critique.

MEETS EXPECTATIONS DOES NOT MEET EXPECTATIONS

17. Displays respectful and ethical behavior towards patients and all members of the perioperative team (i.e.-attending staff, residents, nurses, etc.).

MEETS EXPECTATIONS DOES NOT MEET EXPECTATIONS

18. Complies with department/hospital/school policies including: legal/ethical standards for SRNAs, documentation, cost containment, HIPAA, controlled substances, infection control and universal precautions.

MEETS EXPECTATIONS DOES NOT MEET EXPECTATIONS

19. Has the student's overall performance been appropriate for his/her clinical level today?

EXCEEDS EXPECTATIONS MEETS EXPECTATIONS NEEDS IMPROVEMENT

<p>Facilitators & Barriers (2)</p>	<p>Concludes with primary and any secondary purpose statement(s).</p> <p>Identifies the project facilitators (support systems, stakeholders or shareholders, champions) and the potential barriers to the change.</p> <p>Discusses the project economic component as a facilitator or barrier.</p> <p>Discusses potential for sustainability of the intervention during and after the project.</p>	<p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p>
<p>Review of the Evidence</p> <p>PICOTS (1)</p> <p>Search Strategies (1)</p> <p>Evidence, Sub-Topics (6)</p>	<p>(The existing evidence for this DNP project)</p> <p>States precisely the primary PICOTS and any secondary PICOTS question.</p> <p>Identifies the literature search strategies (broad to focused with direct application to project). Includes (a) databases, (b) search terms and inclusion time period of publications, and (c) results of search by study design and by level of evidence [Melnyk] with numbers</p> <p>Presents the synthesis and integration of the evidence (studies and guidelines) that support the problem, intervention, and outcome measurement. At least 3 sub-topics with a total of 15 – 20 studies, evidence based guidelines</p>	<p><u>Y</u></p> <p><u>Y</u> (all items)</p> <p><u>Y</u></p>
<p>Theory (2)</p>	<p>Discusses the theory with concepts and addresses application to the project and intervention.</p> <p>Discusses application of the theory in studies similar to the project.</p>	<p><u>Y</u></p>
<p>Methods</p> <p>IRB Approval, Site Approval, Ethical Issues, Funding (2)</p>	<p>(The components of the project. Provides information for others to replicate the evidence based change)</p> <p>States specific IRB approval and site agreement.</p>	<p><u>Y</u> (all items)</p>

<p>Setting & Participants (1)</p>	<p>Discusses ethical considerations of privacy, protection including research vulnerable population, and author conflicts of interest. Addresses management of the ethical concerns. Addresses funding.</p>	<p><u>Y</u></p>
<p>EBP Intervention (2)</p>	<p>Describes the setting, specifics of the participants with inclusion and exclusion criteria, sampling method, and expected number.</p>	<p><u>Y</u></p>
<p>Change Process, EBP (2)</p>	<p>States the EBP intervention. Details the intervention steps (recruitment, intervention sequence including time and participant involvement and who conducts) so others can replicate.</p>	<p><u>Y</u></p>
<p>Study Design (1)</p>	<p>Discusses the change theory with processes to promote change and EBP model or framework to support the project.</p>	<p><u>Y</u></p>
<p>Validity (1)</p>	<p>Identifies the study design for measuring impact of the EBP intervention on primary outcome and any secondary outcomes.</p>	<p><u>Y</u></p>
<p>Outcomes (1)</p>	<p>Describes aspects of the project that address internal validity (integrity of the data) and external validity (generalization)</p>	<p><u>Y</u></p>
<p>Measurement Instrument(s) (2)</p>	<p>States the primary outcome and any secondary outcome of the EBP intervention which includes anticipated degree and direction of impact of the EBP intervention on the outcome.</p>	<p><u>Y</u> (all items)</p>
<p>Quality of Data (1)</p>	<p>Identifies and discusses the instrument to measure each outcome of the EBP intervention including tool validity and reliability. Addresses procedures associated with participant completion of the instrument. Discusses permission for use of the instrument.</p>	<p><u>Y</u></p>

<p>Analysis Plan (Statistical) (2)</p>	<p>Explains methods to promote quality and adequacy of data which includes power analysis or number of participants, baseline data, post data, time length or period of time of data collection, and comparison to published benchmark data.</p> <p>Provides details of statistical methods to draw inferences from the data which includes pre-post data and demographics, if later applies.</p>	<p><u>Y</u></p>
Results		
<p>Setting & Participants (5)</p>	<p>Reports the time frame, setting, and participants involved. Describes participant data.</p>	<p><u>Y</u></p>
<p>Intervention Course, Actual (5)</p>	<p>Reports the major components of the intervention and the associated time periods. Addresses the number of participants at key points.</p>	<p><u>Y</u></p>
<p>Outcome Data by Sub-Topic (10)</p>	<p>Presents the data with statistical analysis for each measured outcome. Includes summary of missing data.</p>	<p><u>Y</u></p>
Discussion		
<p>Successes, Most Important (4)</p>	<p>States and describes the most important successes in the study outcomes.</p>	<p><u>Y</u></p>
<p>Study Strengths (2)</p>	<p>Describes elements of the setting (for example, geography, resources, organizational culture, staff, and leadership) that provided support and context for the intervention. Discusses degree of success in implementing the intervention components.</p>	<p><u>Y</u></p>
<p>Results Compared to the Evidence in the Literature (2)</p>	<p>Compares and contrasts the study results with relevant findings from specific published studies.</p>	<p><u>Y</u></p>
<p>Limitations</p>		<p><u>Y</u></p>

<p>Internal validity effects (1)</p>	<p>Discusses possible sources of confounding factors, bias, and imprecision in EBP intervention processes and collection of data that could affect the study outcomes.</p>	
<p>External validity effects (2)</p>	<p>Address factors (participant characteristics, setting characteristics) that could affect generalizability</p>	<p><u>Y</u></p>
<p>Sustainability of effects and plans to maintain effects (1)</p>	<p>Addresses potential for observed gains to weaken over time and plans for maintaining improvement.</p>	<p><u>Y</u></p>
<p>Efforts to minimize the study limitations (1)</p>	<p>Reviews briefly the efforts to minimize limitation impact on application of results. Assesses the effect of limitations on interpretation and application of findings.</p>	<p><u>Y</u></p>
<p>Interpretation</p>		
<p>Expected & actual outcomes (2)</p>	<p>Addresses expected results, unexpected results, problems, and failures. Explores possible reasons for differences between observed and expected outcomes.</p>	<p><u>Y</u></p>
<p>Intervention’s effectiveness (inferences) (2)</p>	<p>Draws inferences consistent with the strength of the study data about causal mechanisms (components of the intervention, support context factors, type of setting) that assisted with the intervention’s effectiveness. Addresses the types of settings in which the study intervention is most likely to be effective.</p>	<p><u>Y</u></p>
<p>Intervention revision (1)</p>	<p>Suggests intervention modifications that might improve attainment of the outcomes.</p>	<p><u>Y</u></p>
<p>Expected and actual Impact to health system, costs, and policy (2)</p>	<p>Highlights the expected impact and the actual impact of the EBP intervention on health system, policy, and cost. Reviews study estimated costs and actual cost of the intervention and study. Discusses the potential for the economic sustainability of the intervention.</p>	<p><u>Y</u></p>

<p>Opportunities, other</p>	<p>Discusses current funding sources for the study. As applies, optional.</p>	
<p>Conclusions Practical Usefulness of Intervention (2) Further Study of Intervention (1) Dissemination (1)</p>	<p>Discusses overall practical usefulness of the EBP intervention. Addresses further implementation and outcome studies of the EBP intervention. Presents dissemination.</p>	<p><u>Y</u> <u>Y</u> <u>Y</u></p>
<p>References (4)</p>	<p>Presents a minimum of 20 research studies including evidence based guidelines. All cited within body of paper. May have additional references: e.g., grey literature, professional organization guidelines which may not be derived from high evidence level research, other. Excludes general references such as textbooks. Use primary sources.</p>	<p><u>Y</u></p>
<p>Appendices (all cited within body of the paper) Cost Table for Project (1) Definition of Terms (1) Synthesis of Evidence Table (specific to project) (1) Theory to Application Diagram (1) Logic Model (1) Project Timeline Flow Graphic (1) Intervention Flow Diagram (1)</p>		<p><u>Y</u> (cost) <u>Y</u> (terms) <u>Y</u> (table) <u>Y</u> (theory) <u>Y</u> (Logic) <u>N/A (what is this?)</u> (timeline) <u>Y</u> (intervention)</p>

<p>Intervention Materials (example-education program) (S/U/NA)**</p>		<p><u>Y</u> (materials)</p>
<p>IRB Approval Letter(s), if applies (S/U/NA)</p>		<p><u>Y</u> (IRB)</p>
<p>UMKC Approved Consent or Informational Letter, if applies (S/U/NA)</p>		<p><u>N/A</u> (consent)</p>
<p>Measurement Tool(s) (S/U/NA)</p>		<p><u>Y</u> (tools)</p>
<p>Permission(s) for Tool(s) (S/U, NA)</p>		<p><u>Y</u> (permission)</p>
<p>Data Collection Template (1)</p>		<p><u>Y</u> (collection)</p>
<p>Statistical Analysis Results Table(s) (4)</p>		<p><u>Y</u> (results)</p>
<p>Other Tables</p>		

*total points = 100 points

** S/U/NA: S=applies to project and present in appendix; U=applies to project and not present in appendix (S required for paper grade), NA=not applicable to project and not present in appendix.