IMPORTANT:

You may write an abstract that introduces a poster/audiovisual/story for something you have presented someplace else or for something new. For example, the poster abstract example below the Definitions section is for a poster presented in 2011.

DEFINITIONS:

Proof of Concept (sometimes called Clinical Proof of Concept – CPOC): Evidence that establishes the feasibility of an

- idea
- invention
- process
- business model
- pre clinical testing of a hypothesis about a mechanism of action for a new drug healthcare technology

A Proof of Concept study is a pilot study--exploratory, preliminary, demonstration, test of feasibility of methods and procedures.

****For more information on the areas that qualify under the Proof of Concept definition, refer to Attachment A.

EXAMPLE OF A PROOF OF CONCEPT ABSTRACT:

Statement of the Problem/Issue

The education innovation poster overviews the proof of concept studies undertaken to provide a base for development and testing of an education intervention. Proof of concept studies in support of education interventions are similar in nature to proof of concept phase 1 and 2 drug studies. The purpose of these studies was to help establish viability of the underlying concepts and relationships of the MESA model on which the interventions strategies are based. A series of pilot studies with undergraduate nursing students and with 2nd year medical students assessed the psychometric properties of measures, and tested the feasibility of intervention strategies.

Describe the Proof of Concept “Solution”

The poster reports the findings from each of the preliminary studies, present the MESA model, describe the intervention strategies linked to the model, and introduce students enrolled in the initial MESA cohort who entered the study in Fall 2010.

The recently funded Mechanisms for Enhancing Scholarly Achievements (MESA) (1R01 GM088781-01A 1 is a randomized, controlled prospective-cohort-longitudinal intervention effectiveness study that is testing the translation of findings from the initial proof of concept studies to inter professional education intervention.
Practical Details of Proof of Concept Use

This integrated series of interventions was designed to build interprofessional research teams. The framework for this initial test has a cognitive learning theory assumptive base specifying intra person and organization resources that make it possible to reach desired scholarly achievement goals despite exposure to learning anxiety and uncertainty that accompanies entry into a team science learning frame. The theory-informed intervention strategies incorporate the following elements: Motivation direction and strength strategies to foster the development of personal research career goals; faculty and community partner mentor pool linking student participation with interdisciplinary research teams carrying out community-based studies; research team building support to promote collaboration and healthy competition; individual capacity building essential cognitive skills (problem solving, cognitive reframing, delay in gratification and belief in self relative to research self-efficacy); participation across five semesters in team-based research projects directed toward health promotion/restoration for persons from vulnerable populations; a scholars’ seminar series (across five semesters) focused on essential research content and proficiencies. Five aims and 10 linked hypotheses address a test of outcomes and modeling of the proposed learning process that begins with Motivator Direction and Strength and ends with Scholarly Activity and Career Path Plan.

Practical Advantages of Proof of Concept “Solution”

The intervention will increase understanding of the mechanisms that contribute to the transition of a diverse group of Academic Health Science Center graduate students who are enrolled in clinical programs of study (medicine, nursing, dentistry, allied health, and public health) into planned pursuit of a clinical research scientist career.

CONCEPT CLARIFICATION—THE EXAMPLE OF A WORKAROUND

DEFINITION: Jennifer Browne

Abstract

Statement of the Problem/Issue: The concept of work-around in nursing informatics and healthcare technology is well described, yet poorly defined and differentiated from related concepts. Further, assumptive bases associated with some of the current workaround studies have not been clearly articulated, leading to poor logic fit in analysis and recommendations.

Describe the Proof of Concept “Solution”: The purpose of this presentation is to provide a concept clarification study of “health information technology workaround” developed from the NI 2012 Nursing Congress paper “Definition and Relational Specification of Work-around”.

Practical Details of Proof of Concept Use: Concept clarification is a critical step in the development of knowledge related to the concept of interest. For example, we cannot measure “falls” occurring in a hospital until we define what a fall is. Is it a fall if the person is assisted to the ground? Is it a fall if the patient sat down? Similarly in nursing informatics, for us to research and develop knowledge our concepts must be clarified so they can be specifically defined and measured. Clarification is accomplished by analyzing uses of the concept and
identifying attributes that constitute the concept and help define it. A clearly defined concept is necessary in order to begin to characterize and classify the phenomena of interest.

Practical Advantages of Proof of Concept “Solution”

This presentation will explore:

1. Definition and purpose of concept clarification
2. Review of various clarification methods
3. What is an assumption?
4. Types of cases
5. Utilize the term “workaround” in a case study approach to developing definitions and specifications

BEST PRACTICE EXAMPLES AND RECOMMENDED OUTLINE FOR ABSTRACTS  Kathleen Stevens, September 6, 2012

Best Practice Knowledge: “A best practice is a technique or methodology that, through experience and research, has proven to reliably lead to a desired result. A commitment to using the best practices in any field is a commitment to using all the knowledge and technology at one's disposal to ensure success. The term is used frequently in the fields of health care, government administration, the education system, project management, hardware and software product development, and elsewhere.” This was last updated in February 2007

Posted by: Margaret Rouse  http://searchsoftwarequality.techtarget.com/definition/best-practice

Other sites of interest with definitions:

http://www.occmha.org/index.php?option=com_content&view=article&id=117&Itemid=177
OPTION 1: Structured abstract from the AHRQ Health Care Innovations Exchange

http://www.innovations.ahrq.gov/

DESCRIPTIVE TITLE INCLUDING INTERVENTION AND IMPACT ON KEY OUTCOMES

1. WHAT THEY DID
   a. Problem Addressed
   b. Description of the innovative activity
   c. References/Related Articles

2. DID IT WORK
   a. Results
   b. Evidence Rating

Note: Drawing on elements of these established systems, the Innovations Exchange uses three categories to provide meaningful distinctions in assessing the strength of the link between the innovation and the observed results:

**Strong:** The evidence is based on one or more evaluations using experimental designs based on random allocation of patients or groups of patients (e.g. medical practices or hospital units) to comparison groups. The results of the evaluation(s) show consistent direct evidence of the effectiveness of the innovation in improving the targeted health care outcomes and/or processes.

**Moderate:** While there are no randomized, controlled experiments, the evidence includes at least one systematic evaluation of the impact of the innovation using a quasi-experimental design, which could include the non-random assignment of individuals to comparison groups, before-and-after comparisons in one group, and/or comparisons with a historical baseline or control. The results of the evaluation(s) show consistent direct or indirect evidence of the effectiveness of the innovation in improving targeted health care outcomes and/or processes. However, the strength of the evidence is limited by the size, quality, or generalizability of the evaluations, and thus alternative explanations cannot be ruled out.

**Suggestive:** While there are no systematic experimental or quasi-experimental evaluations, the evidence includes non-experimental or qualitative support for an association between the innovation and targeted health care outcomes or processes. This evidence may include non-comparative case studies, correlation analysis, or anecdotal reports. As with the category above, alternative explanations for the results achieved cannot be ruled out.

If the available qualitative and quantitative information is insufficient to place the innovation in one of the three categories above, the activity fails to meet the
minimum inclusion criterion for evidence, and therefore is not eligible for inclusion as an Innovation Profile in the AHRQ Health Care Innovations Exchange. It may, however, qualify for inclusion as an Innovation Attempt.

3. HOW THEY DID IT
   a. Context of the innovation
   b. Planning and Development Process
   c. Resources Used and Skills Needed
   d. Funding Sources
   e. Tools and Other Resources

4. ADOPTION CONSIDERATIONS
   a. Getting Started with this Innovation
   b. Sustaining this Innovation

EXAMPLE 1: AHRQ HEALTH CARE INNOVATION SNAPSHOT

(See full innovation profile at http://www.innovations.ahrq.gov/content.aspx?id=3094)

Title
Fall Prevention Toolkit Facilitates Customized Risk Assessment and Prevention Strategies, Reducing Inpatient Falls

Summary
Nurses at Partners Healthcare System use a fall prevention toolkit to periodically assess each hospitalized patient's risk of falling, identify patient-specific risk factors that could lead to a fall, and customize interventions designed to reduce those risks. After completing a computerized risk assessment, nurses review and select tailored prevention strategies recommended by the software. The system then automatically generates a customized fall prevention care plan, educational handout, and bedside alert poster. The program significantly reduced falls, particularly in patients 65 and older.

Evidence Rating
Strong: The evidence consists of a cluster randomized study comparing inpatient falls and fall rates per 1,000 patient days in units implementing the program and similar units not implementing it.

Developing Organizations
Partners Healthcare System
OPTION 2: Structured abstract used for the Summer Institutes on Evidence-Based Practice

ACE SUMMER INSTITUTE ON EBP POSTER WINNERS

GO TO http://www.acestar.uthscsa.edu/ebp_past.asp Examples are available across a number of years.

Recommend: DESCRIPTIVE TITLE INCLUDING INTERVENTION AND IMPACT ON KEY OUTCOMES

SAMPLE ABSTRACT 1

Practice Change Project

A Standardized Approach to CLABSI Elimination
Crystal M. Russell, RN, BSN
Arkansas Children's Hospital
Carol Oldridge, Michele Honeycutt, Amir Mian

Problem: Central venous access devices are integral in treating pediatric malignancies. Hospital-acquired central line associated blood stream infections (HA-CLABSI) are complications of therapy and significant sources of morbidity and mortality.

Evidence: Prolonged, frequent neutropenia plus long-term use of indwelling access devices are bacteremic risks in patients with hematologic/oncologic disease (Urrea et al., 2004; Adler et al., 2006).

Strategy: In 2006, the National Association of Children’s Hospitals and Related Institutions (NACHRI) researched best practice in central line maintenance in the Pediatric Intensive Care (PICU) setting. Successful reduction of HA-CLABSI raised question if similar adaptations would elicit comparable effects in the pediatric hematology/oncology (hem/onc) population.

Practice Change: Historic HA-CLABSI rates on the inpatient hem/onc unit at a large pediatric facility were determined via retrospective review of medical records. In order to eliminate HA-CLABSI, the following were implemented: central line maintenance bundles, developed by NACHRI Hem/One CLABSI Collaborative Faculty; staff and family education; weekly compliance audits; and use of central line maintenance carts. Root Cause Analyses were performed for each HA-CLABSI, and reinforcement provided based on findings.

Evaluation: HA-CLABSI rates were evaluated per Centers for Disease Control Guidelines.

Results: Retrospective analysis (2006 – 2008) revealed a mean HA-CLABSI rate of 5.42 infections per 1000 central line days. Organization-wide implementation of PICU maintenance efforts began in 2009, eliciting a reduction to 2.67/1000 line days. Hem/onc-specific CLABSI reduction interventions occurred in 2010, prompting further decrease to 1.82 infections per 1000 central line days.

Recommendations: Significant reduction was seen in HA-CLABSI with implementation of standardized maintenance bundles, staff and family education, and use of central line maintenance carts. Factors other than maintenance techniques likely play into prevalence of CLABSI in the pediatric hem/onc population, prompting investigation into primary and secondary sources of infection.
Lessons Learned: Staff compliance with maintenance bundles was erratic by audits of self-disclosure, ranging from 50 to 100% adherence. Further education and reinforcement, as well as addressing possible environmental or self-contained contaminants are essential.

Bibliography:

SAMPLE ABSTRACT 2

Education Example

Application of the ACE Star Model and Essential Competencies in a DNP Program

Mary D. Bondmass, RN, PhD, CNE

University of Nevada Las Vegas

Problem: The doctorate of nursing practice (DNP) is designed to prepare nurse leaders and innovators for evidence based practice (EBP); however few data are available supporting how EBP is taught and how EBP competency is measured in DNP programs.

Evidence: Previous data have demonstrated the ACE Star Model as an effective framework for teaching EBP at the undergraduate level, and content and construct validity have been reported related to Essential Competencies for EBP in Nursing.

Strategy/Practice Change: The purpose of this study is to demonstrate the effect of using the ACE Star Model as the framework for teaching an evidence course and the doctoral level essential EBP competencies as an outcome measure of learning EBP in a DNP program.

Procedure: An evidence course was developed for a new DNP program based on the ACE Star Model. The doctoral level essential competencies were formatted into a 31-item, on-line self-rated measure of EBP competency using a 0 . 4 rating scale reflecting No Competence to Expert Competence. Five subscales (star-points) were scored as the average of the responses within each subscale; the total score was obtained by summing subscale scores (thereby converting ordinal into interval data). Competency was measured before and after the first-semester evidence course.
Evaluation: Data were collected August 2010 to January 2011. Descriptive statistics, Repeated ANOVA, and internal consistency reliability testing were utilized.

Results: Twenty DNP students comprised the initial cohort in our program (47.5 ± 8.20 years of age, 80% female, 60/40% in the Advanced Practice and Nurse Educator tracks, respectively). Following the evidence course, significant improvement in the total score and all subscale scores except Evaluation was demonstrated (p < .001). Internal consistency reliability was demonstrated for the subscales and total score (.97/.94 pre/post).

Lessons Learned/Recommendations: The ACE Star Model provided an effective framework for our evidence course to improve EBP competency. Ongoing, end-or-semester measurements may be helpful in demonstrating progression in doctoral level EBP competencies; online surveying facilitated data collection.

Bibliography


Stevens, K. R. (2005, 2009) Essential Competencies for Evidence-Based Practice in Nursing. 1st and 2nd Ed. Academic Center for Evidence-Based Practice: The University of Texas Health Science Center at San Antonio.
ATTACHMENT A

Resources for subject areas relevant to Proof of Concept

- **idea** (often concept clarification work, instrument development studies such as seen in the following article http://www.sciencedirect.com/science/article/pii/S1067502704001112#),
- **invention** (http://leardon.com/tag/invention),
- **process** (http://www.ncbi.nlm.nih.gov/pubmed/18975352),
- **business model** (https://engineering.purdue.edu/MIDFIELD/sger--proof-of-concept-of-a-new-business-model-for-midfield.htm),
- **pre clinical testing of a hypothesis about a mechanism of action for a new drug** (http://www.nibr.com/downloads/newsroom/NIBR_PoC_WP.pdf),
- **healthcare technology** (http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&ved=0CCYQFjAB&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.142.9545%26rep%3Drep1%26type%3Dpdf&ei=3C49UOeZA4TBBygHw04DAAw&usg=AFQjCNHjh3gDYYK-RO9_iGiE_thPjrfTjg&sig2=4vEtnp0eZKu4QdSDRcUUFw.)


http://www.biomedcentral.com/content/pdf/1471-2288-10-1.pdf