The Evolution of a Doctor of Nursing Practice Program
KT Waxman, DNP, MBA, RN, CNL, CENP, CHSE¹, Juli Maxworthy, DNP, MBA/MSN, RN, CNL, CPHQ, CPPS², Marjorie Barter, EdD, RN, CNL, CENP³

¹ University of San Francisco, Assistant Professor, USA
² University of San Francisco, Assistant Professor, USA
³ University of San Francisco, Professor Emerita, USA

Abstract
The Doctor of Nursing Practice (DNP) is a terminal degree in nursing, which exemplifies the essentials developed by the American Association of Colleges of Nursing (AACN) (2006). As the number of DNP programs in the United States continues to grow, it is essential that DNP programs provide the rigor that PhD programs expect. The University of San Francisco (USF), which started the first DNP program in California in 2006, has evolved in its attempt to ensure that it delivers on its motto to “Change the World from Here”. DNP programs are essential in response to the Institute of Medicine (IOM) recommendation to increase the number of doctorally prepared nurses in the United States (Kohn, Corrigan, & Donaldson, 2000). This paper provides the background of the DNP program and USF’s journey for almost a decade in the hopes of sharing its curriculum, structure, and outcomes with new programs to provide consistency.

Keywords: doctor of nursing practice, nursing education, evidence-based practice, higher education,

Summary of the Argument
The rapid growth of practice doctorate programs has created a unique challenge for faculty, as well as an opportunity for innovative approaches to curriculum development and learning outcomes that are representative of the expected competencies of specialized advanced nursing roles. The University of San Francisco (USF) implemented the first doctor of nursing practice (DNP) program in the state of California, and has been a leader in the evolution of the program on a national level. Faculty concluded that the final DNP project must represent the use of evidence to improve either practice or patient outcomes. By adopting the PDCA (Plan-Do-Check-Act) model of continuous quality improvement, the program’s success is due to the ongoing pursuit of improvement and participation of the faculty.

Background
Since the release of the Institute of Medicine’s report To Err is Human (Kohn, Corrigan, & Donaldson, 2000), greater attention to quality and process improvement has been evident in all healthcare settings. Implementing activities designed to develop systems or pro-
cesses for quality and safety requires Institutional Review Board for Protection of Human Subjects (IRBPHS) approval. Human subject protection is important for students in Doctor of Nursing Practice (DNP) programs and for practicing DNPs who are implementing evidence-based improvement projects. Traditionally, doctoral students complete research projects as the culminating learning outcome, and consequently, IRBPHS approval has been expected. As DNP programs are established, different scholarly expectations for the practice degree should also be acknowledged.

**Practice Versus Research Learning Outcomes**

The DNP degree was promoted by the American Association of Colleges of Nursing (AACN) to provide an alternative to the PhD for advanced practice nurses to achieve a terminal degree in nursing. The “**DNP Essentials**” (*The Essentials of Doctoral Education for Advanced Nursing Practice*) (AACN, 2006) provides the foundation for new roles for doctorally prepared nurses who are experts in translational or improvement science rather than research. The “**DNP Essentials**” document contains careful differentiation between research-focused programs (PhD) and practice-focused programs (DNP). Research-focused programs require a dissertation that describes an original research study, whereas practice-focused programs require the implementation of a change of practice-focused project that is derived from a practice immersion experience. The “**DNP Essentials**” document asserts that the final DNP project must have substantive scholarly merit and demonstrate synthesis of student work throughout the program (AACN, 2006).

Between 2006 and 2012, DNP programs grew in number from 20 to 217 in the United States, with an additional 100 schools considering implementing DNP programs (AACN, 2013). There are currently 264 DNP programs with an additional 60 programs in the planning stages in 48 states plus the District of Columbia. From 2013 to 2014, the number of students enrolled in DNP programs rose from 14,688 to 18,352 along with a rise of 2,443 to 3,065 (AACN, 2015). USF’s School of Nursing and Health Professions DNP program currently has approximately 150 students enrolled in its program. This rapid growth of practice doctorate programs has created a unique challenge for faculty, as well as an opportunity for innovative approaches to curriculum development and learning outcomes that are representative of the expected competencies of specialized advanced nursing roles. The AACN “**DNP Essentials**” suggest that the final DNP project represent the use of evidence to improve either practice or patient outcomes (AACN, 2006). Original research is not the intent of DNP curricula and therefore cannot be used as a substitute for the scholarly final DNP product (AACN, 2006).

**Approaches to the DNP Final Project**

In many programs, DNP faculty are pioneering new approaches to what the DNP
A project can potentially entail. These faculty have designed curricula to provide foundational content that is appropriate to this new practice doctorate. Efforts to clearly delineate the difference between human subjects research and evidence-based implementation projects have highlighted the need for clarity, scholarly rigor, and appropriate nomenclature (Nelson, Cook, & Raterrink, 2013; OGrinc, Nelson, Adams, & O’Hara, 2013; Platteborze, et.al., 2010; Ryan & Rosario, 2012; Shirey et al., 2011; Szanton, Taylor, & Terhaar, 2013).

The traditional PhD five-chapter standardized dissertation format has been used for many years with research degrees, whereas the nomenclature for the final DNP scholarly project work has been found to be inconsistent. Various names, such as Capstone Project, Practice Inquiry, Scholarly Endeavor (Kirkpatrick & Weaver, 2013; Szanton, Taylor & Terhaar, 2013;), Quality Improvement/Evidence-Based Practice (EBP) Project (Shirey, et. al., 2011), Performance Improvement (Platteborze, et. al, 2010; Ryan & Rosario, 2012), and DNP Project (Brown & Crabtree, 2013) are attributed to the culminating project and subsequent written report. AACN (2014) describes the key differences between DNP and PhD students as their commitment to practice versus research careers and the focus on translating research versus conducting research.

The “DNP Essentials” document (AACN, 2006) provides guidance for a range of non-research scholarly activities for consideration as a final DNP project, including a practice portfolio, a practice change initiative, quality improvement project, or similar culminating products that will serve as a foundation for future scholarly practice. The varied approaches to the final project highlight a lack of consensus among the schools that offer the program about this scholarly activity, and has created confusion and the need for continuing work to build a national consensus (Kirkpatrick & Weaver, 2013). As with the evolution of the PhD, DNP programs need to publish examples of their processes and outcomes to the field to provide the opportunity for dialogue about best practices. Sharing experiences, ideas, and resources among established and new DNP programs will help faculty to clarify and develop a more standardized approach to clinical scholarship. In the long run, this exercise will help to clarify the differences between the DNP and PhD outcomes, as there will be consistency in the preparation for both terminal degrees. USF’s program focuses on the needs of the students and allows them to customize their project to their passion. These projects consist of large scale quality/ performance improvement projects in varying settings.

**History of DNP Projects at the University of San Francisco**

The University of San Francisco (USF) was fortunate to have had a visionary dean who had led the initiation of, and commitment to, its DNP program. The DNP degree was officially added to the USF School of Nursing and Health Professions (SONHP) curriculum in the fall of 2006, and officially launched as the first
DNP program in the state of California in 2008. The following year, the program received Commission on Collegiate Nursing Education (CCNE) accreditation. Initially, DNP projects were clearly defined as evidence-based implementation projects, and as such were not sent for Institutional Review Board (IRB) review. Students engaged in a series of four foundational courses to prepare them for scholarly writing, data analysis, project management, and evidence-based practice. Students then enrolled in a one-unit course to complete a qualifying project that consisted of a grant proposal to a funding source and a manuscript that was submitted to a peer-reviewed journal. As part of the qualifying project, students completed IRB training modules to assist them in distinguishing implementation projects from original research. The requirement for a grant proposal created a roadblock for some students, as they spent considerable effort to find requests for proposals (RFPs) that were not focused on research projects. The paucity of funding for implementation projects caused the majority of DNP students to write a proposal that was research-focused, necessitating IRB submission.

When the DNP program was designed in 2007, USF offered a direct care option for clinical practitioners and an indirect care option for healthcare system leaders. At the time that the first six students in the program graduated, feedback from the program evaluations indicated that experienced nurse practitioners, clinical nurse specialists, and midwives wanted the indirect care option as they wished to focus on leadership and system-wide competencies rather than direct care competencies. Thus, USF collapsed the post-master’s DNP curricula into one program, Health Care Systems Leadership (HCSL). However, the lack of clear differentiation for Health System Research (HSR) and Evidence-Based Implementation (EBI) projects caused a drift in student submissions toward research-focused projects.

As the program evolved, it was mandated that through the university, all DNP projects receive IRB approval. This addition created a shift in the thinking in both students and faculty over the subsequent two years, and student projects began to resemble dissertations. Furthermore, the University IRB Committee became more actively involved in asking for greater rigor in research methods and reviewing quality and process improvement projects through a human subjects research lens. Students were revising projects to build in research methods as requested by nursing faculty and University IRB Committee reviewers. When the DNP project was clearly an evidence-based implementation project, the University IRB Committee sent an approval letter to the project author. The demarcation between research and quality or process improvement became increasingly blurred. After reviewing the federal guidelines for protection of human subjects, faculty agreed to develop substantive protocols for students to design evidence-based quality and process improvement projects that were clearly differentiated from re-
search projects. As USF had designated final projects for bachelor’s of science in nursing (BSN) and master’s of science in nursing (MSN) programs as Capstone, faculty selected a different name for the DNP culminating work. USF chose the term Comprehensive Project Report (CPR) for the immersion experience.

DHHS/OHRP Guidelines: Distinguishing Between Implementation and Human Subjects Research Projects

One of the challenges the department faced was how to work with USF’s IRB approval process when dealing with project approval. The department was able to leverage some parameters set forth by the U.S. Department of Health and Human Services and Office of Human Research Protection (DHHS/OHRP), which clearly delineated the difference between quality improvement activity and research to assist in determining when IRB approval is necessary (DHHS/OHRP, n.d.). In addition, a letter from the DHHS/OHRP to Dr. Peter Pronovost at Johns Hopkins University School of Medicine provided a guide for faculty supervising DNP projects (DHHS/OHRP, 2008). This letter discussed whether HHS regulations would apply to certain planned quality improvement activities when implementing a program designed to reduce catheter-related infections at several hospitals. The Johns Hopkins QI project described by Dr. Pronovost included supplementary activities related to the collection of aggregated data relating to outcomes for a catheter-related bloodstream infection reduction of efforts, as well as surveys to elicit perceptions from staff on safety culture and the process of implementing the program at participating hospitals.

Based on the literature, feedback, and documentation that institution faculty provided, the DHHS/OHRP determined that these activities did not involve human subjects research and therefore did not require IRB approval. The analysis was based on two major factors: 1) the program was not designed to evaluate the effectiveness of an intervention, but rather the effectiveness of a program to implement the evidence; and 2) aggregated data from patients and staff was anonymous and meets the regulatory definition of research, but not the regulatory definition of research with human subjects, and therefore does not require IRB review and approval. No identifiable private patient specific information was collected (DHHS/OHRP, 2008).

After reviewing these distinctions, USF nursing faculty involved the University IRBPHS Committee in a dialogue about how DNP evidence-based projects should be treated with regard to IRB approval. The nursing faculty developed a substantive protocol for students and faculty that required each DNP student to write a Statement of Determination to submit to the DNP Committee Chair and is reviewed by the DNP Department fac-
ulty (see Appendix A). If a determination that the project constitutes research or is questionably within the research category, the student must seek IRB review. Otherwise, the department approves the project on behalf of the IRB. The exception to this rule is when a student is implementing a project in a facility that requires IRB approval per the organization’s policy. The Statement of Determination request requires that the student write a succinct description of the proposed project including an aim statement. Students must complete a checklist (see Appendix B), designed to differentiate human subjects research activity from evidence-based project improvement activity. The students also have to complete several IRB modules so that they understand the differences between human subject testing and performance improvement. DNP projects typically do not include a research component, therefore after departmental review, the student and DNP Committee Chair sign the Statement of Determination, which the department then keeps on file. This process occurs prior to the student enrolling in the one-unit Qualifying Project course. The document must be included in the appendix of the Comprehensive Project Report (CPR) submitted in the final semester of the program.

**Curriculum Revisions**

Concurrent with the expanding awareness of the need to differentiate implementation from research activity, USF faculty recognized that improvements in the curriculum and learning activities would promote a more robust scholarly approach to the practice doctorate. The DNP department faculty sequenced the practicum courses (progressing from a micro-system to macro system focus) so that clinical hours are focused on activities that would lead to integration and synthesis of aggregate/systems/organizational focus described in the AACN “DNP Essentials” document (AACN, 2006, p. 18). For example, the initial practicum learning outcome might relate to an organizational needs analysis, while subsequent semesters have increasingly complex learning activities leading up to the comprehensive project implementation and evaluation in the final semester as part of the residency (immersion) course. In this fashion, faculty help students individualize each practicum course and use clinical hours to gain expertise in system-wide change projects.

The DNP department teaches the Plan Do Study Act (PDCA) quality improvement methodology (Deming, 1993) within the program, which was used to revise the Qualifying Project course and delete the formal requirement for submission of a grant proposal. In its place, the department administered an expectation of submission of prospectus (see Appendix C). This prospectus follows the guidelines of the project and this mini proposal guides the stu-
is that they are evidence-based and not designed to develop new generalizable knowledge.

Realizing that USF needed to perform a rigorous evaluation of student projects, key faculty initially developed a home-grown tool that incorporated the earlier Standards for Quality Improvement Reporting Excellence (SQUIRE) guidelines (Ogrinc, et. al., 2008; Stein, 2010) to assist in rating the CPR. Faculty also came up with a name for the final document, PRODUCTS, which stands for Project Related to Outcomes Directly Utilizing Comprehensive Translational Science (see Appendix B). Aside from using the SQUIRE guidelines, the faculty used terminology from the Quality Improvement Report (QIR) work (Thomson & Moss, 2008) and basic project management tools. By combining these elements, the faculty produced a document that is a straightforward tool for both faculty and content experts who serve as committee members for student projects. Feedback from the students pre and post implementation of the PRODUCTS template has been overwhelmingly positive. The questions that are posed within the document provide general guidance and support to the student to enable them to be successful as they write their project related documents.

**Conclusion**

The work completed by USF since the advent of the DNP program in 2006 has
been significant because the faculty involved were committed to the success of the program. By adopting the PDCA model of continuous quality improvement, the program’s success is due to the ongoing pursuit of improvement and participation of the faculty. As the program continues to grow, the faculty will work to ensure that the student final project is reflective of the high caliber product expected for evidence-based changes at the macro level.

References


Appendix A: Statement of Determination

DNP Project Approval Form: Statement of Determination

Student Name: _____________________________________________________________

**Title of Project:**

**Brief Description of Project:**

A) Aim Statement:

B) Description of Intervention:

C) How will this intervention change practice?

D) Outcome measurements:

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

☑ This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☒ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:
**EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST** *

Instructions: Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td></td>
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<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive standard of care.</td>
<td></td>
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<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td></td>
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<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td></td>
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<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
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<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.</td>
<td></td>
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<tr>
<td>The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td></td>
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</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.</td>
<td></td>
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</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”</td>
<td></td>
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</tr>
</tbody>
</table>

**ANSWER KEY:** If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is NO, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.
Appendix B: Project Checklist

Elements of **PRODUCTS** (Project Related to Outcomes Directly Utilizing Comprehensive Translational Science) listed below are a combination of SQUIRE, QIR and Project Management tools.

**Section I**

**Title and Abstract**

- Title
- Abstract

**Section II**

**Introduction**

- Background knowledge
- Local problem
- Intended improvement/Purpose of Change
- Review of the Evidence
- Conceptual/Theoretical Framework
Section III

Methods
· Ethical issues
· Setting
· Planning the intervention
· Implementation
· Planning the study of the intervention
· Methods of evaluation
· Analysis

Section IV

Results
· Program evaluation/Outcomes

Section V

Discussion
· Summary
· Relation to other evidence
· Barriers to implementation/Limitations
· Interpretation
· Conclusions

Section VI

Other information
· Funding

Section VII

References
Section VIII

Appendices

Suggested Items for the Appendices (not all are required):

- IRB or Non-Research Approval Documents
- Gap Analysis
- Gantt Chart
- Cost/Benefit Analysis
- Responsibility/Communication Matrix
- FMEA Plan
- PDCA Plan
- SWOT Analysis of Current State
- Budget
- Return on Investment Plan
- CQI Method and Data Collection Tools
- All Materials Used for Implementation and Evaluation

The DNP PRODUCTS becomes part of the student’s Portfolio and is a key component of the student’s comprehensive paper and presentation.
Appendix C: DNP Project Prospectus Guidelines

Appendix C

DNP Project (PRODUCTS) Prospectus Guidelines

The DNP Project Prospectus will be completed as one of the requirements of the Qualifying Project. Students will write a proposal detailing the nature of the project design, implementation and evaluation. The Prospectus must be submitted to the Committee Chair by 3/15 (Spring Semester) or 10/15 (Fall Semester).

Executive Summary (1 page)

- Summarizes / problem, need, goals, and value of project

Significance/ Background (3-4 pages)

- Summary of the review of evidence (problem and intervention)
- Context, history, need for evidence-based intervention
- Description of setting, justification/ authorization for project

Project Overview (2-3 pages)

- Discussion of problem or opportunity
- Conceptual or theoretical framework
- Goals (AIM Statement) and objectives
- Barriers to implementation
- Plan for project controls/authority/ responsibility

Detailed Statement of the Proposed Work (2-3) pages)

- Work breakdown structure (WBS)
- Description of projected resource requirements
- Information flow requirements (student/ faculty/ setting)

Time and Cost Summary (1-2 pages)

- Brief narrative of assumptions- put GANTT or PERT (Milestone projections) in appendix
• Time, cost and performance constraints
• Proposed budget with brief narrative- put formal budget in appendix

Evaluation Plan (2-3 pages narrative - tables in appendix)
• Reporting requirements (variance control)
• Proposed evaluation criteria and timelines for evaluation activity

Appendices
• IRB Application approved by University IRB Committee or signed DNP Project Approval: Human Subjects Protection (Non Research Status) IForm approved by Committee Chair
• Letter of support (from setting)
• Definition of terms
• GANTT or PERT and other milestone projections
• Budget
• Optional depictions explaining proposed intervention(s)

Correspondence:
KT Waxman
ktwaxman@usfca.edu