The Doctor of Nursing Practice Capstone Project: Consensus or Confusion?

Jane M. Kirkpatrick, PhD, RN, ANEF; and Terri Weaver, PhD, RN, FAAN

ABSTRACT
Considerable diversity exists among Doctor of Nursing Practice (DNP) programs regarding capstone projects, which reflect the knowledge gained and the competency achieved during the immersion experience. This article describes a conversation of the DNP capstone project among participants of the Committee on Institutional Collaboration DNP Invitational Conference. The focus of the dialogue was to discuss the intent and breadth of the DNP capstone project and how it demonstrates competencies, to consider in what way it differs from the PhD dissertation, and to identify the similarities and differences among multiple forms of the project in terms of scope and expected deliverables, as well as to examine other related issues. The participants addressed eight salient questions in an effort to clarify the value, form, and key elements of the final project. Responses to these questions are presented, and the agenda for a national dialogue regarding the capstone project is considered. [J Nurs Educ. 2013;52(8):435-441.]
DNP project,’ which is an integral part of the integrative practice experience” (2006, p. 3). With the focus on clinical practice, some have questioned whether a final product is warranted where competency and innovation in practice, knowledge dissemination, organizational evaluation, and policy generation are the emphasis.

This article describes a “conversation” on the topic of the DNP capstone project among participants of the Committee on Institutional Collaboration DNP Invitational Conference held in August 2012. The focus of the dialogue was to discuss the intent and scope of the DNP scholarly project, consider how it differs from the PhD, consider how it demonstrates competencies, identify similarities and differences among multiple forms of the DNP projects in terms of scope and expected deliverables (i.e., final products), and, finally, to examine related issues. In addition to framing the discussion by defining and providing examples of DNP projects, participants addressed eight salient questions in an effort to clarify the value, form, and key elements of the final project. Our article should not be construed as a formal research study but rather as a report of the essence of the dialogue about the issues surrounding the DNP project.

EXEMPLARS OF THE DNP PROJECT

In addition to reflecting the immersion experience, the DNP project typically describes either how a practice issue affecting a particular group, population, or community was addressed or how the knowledge was disseminated through translation or integration of evidence into practice (Ahmed, 2013; National Organization of Nurse Practitioner Faculties [NONPF], 2007). Conducted as an individual or collaborative effort, the project should meet an identified need that is supported by the literature, uses an intervention that is acceptable to all stakeholders, and is executed using a systematic ethical approach. The project should have definable metrics and outcomes that are assessed using organizational analytics, with dissemination in peer-reviewed publications and public outlets (Ahmed, 2013; NONPF, 2007). Table 1 provides examples of potential areas of practice inquiry. The initiation of a practice innovation is insufficient. With real-time actualization, there should be a component of the project plan that addresses sustainability so the innovation endures long after the student practica has ended (Ahmed, 2013).

THE “CONVERSATION”

Conference participants were given the opportunity to discuss eight salient questions generated by the authors to ascertain the opinion of the deans and the DNP program directors participating in the conference concerning the DNP project. Groups of participants (N = 120) were each given a question to discuss, and a representative from each group reported on the key points of the discussion to all of the conference participants. The written notes from each group discussion, along with the notes captured as the groups reported on their discussion, have been integrated and are summarized per question in this article.

The participants of the conference represented 116 institutions and three nursing organizations (Sigma Theta Tau International, AACN, and the National League for Nursing). At the time of the conference, more than 200 DNP programs existed in the United States (Mundt & Milone-Nuzzo, 2012). Thus, conference attendees represented slightly more than 50% of all DNP programs from 33 different states. Sixty-eight public universities (60% of total attendance) were represented, and 48 private universities (40% of total attendance) were represented. Nationally, there is almost an even split between the public (51%) and private (49%) institutions that have DNP programs (Mundt & Milone-Nuzzo, 2012). Further breakdown of the institutions by the Carnegie Foundation for the Advancement of Teaching classification (2010) is presented in Table 2. Three of the academic institutions that were represented did not participate in the Carnegie Foundation classification; of these, two were strictly online programs and the other was the Uniformed Services University of the Health Sciences, an institution focused on graduate education. More than half (54.9%) of the participating academic institutions were research-intensive and doctorate-granting institutions, 10.6% were special focus institutions, and 34.5% were from various master’s program (L = larger programs, M = medium programs, and S = smaller program classifications) institutions.

Question One

Is there value to the time and energy expended by both students and faculty for a scholarly project or capstone experience?

The general consensus regarding this question was that the DNP project was a beneficial experience for both students and faculty. For students, the project stimulates synthesis and integration of learning from the various DNP program experiences. Ideally, the deliverable of the project demonstrates multiple competencies and provides evidence that the DNP is elevated over the traditional master’s in nursing (MSN) level. The project helps students to develop expertise in a given area and can set the stage for ongoing scholarly efforts in an area of clinical practice. In addition, it was also noted that the process of completing the project helps students to learn how to cope with setbacks, which are common occurrences in instituting change or best-practice implementation. The dissemination component of the project was also identified by participants as providing an essential and a valuable learning experience. Also, it was suggested that the DNP advisory committee comprise a mix of DNP- and PhD-prepared faculty to capitalize on the respective strengths of both the practice and research doctorates and to promote the link between researchers generating new knowledge and those implementing the findings.

The group noted that faculty benefits from the recognition that accompanies product dissemination. Although it was agreed that understanding how to disseminate one’s work is an important skill that should be inherent in DNP education, there was not a specific model of dissemination defined or endorsed. The group acknowledged that a positive experience for faculty was dependent on the clarity of the project and its match with faculty interest and expertise. In fact, the project was viewed as an indicator of student mentorship; therefore, it had addi-
tional worth, as mentorship was considered an expectation of the faculty role. The contribution of the projects to scholarship in the practice arena was identified as a positive value. It was also noted that the DNP project created a new avenue to link nursing academia with nursing service.

A number of questions and issues arose as a result of the discussion. The first was whether the project should be used as a process for acquiring the requisite skill set reflecting DNP competencies or as a summative demonstration of students’ skills. The consensus was that both are important and that the project should achieve both objectives. One individual indicated that the project served as the “ah-ha” moment for her post-master’s DNP students.

**Question Two**

What are key elements of the DNP project or capstone that contribute to acquisition and demonstration of the core competencies of the DNP graduate?

Much of this conversation centered on how the DNP project is distinguished from the MSN project. In general, key elements of the DNP project were identified as:

- Understand systems and the systems change process to be an effective organizational and systems leader; able to assess the organizational system, culture, and the issue of interest.
- Use informatics to analyze systems and patient data and processes (ability to work with data sets).
The topic as they progress through their coursework. A profession-oriented recommendation that students identify a topic on entry into the program, and they should build their expertise around the topic as they progress through their coursework. A professional portfolio, with papers and assignments associated with the topic, would be collected during the program. This portfolio would demonstrate students’ achievement of competencies.

**Question Three**

*What level of methodological expertise is expected of DNP graduates and how is this reflected in the capstone project?*

This topic generated three major themes: distinguishing the differences between the MSN, DNP, and PhD scholarly projects; the degree of statistical and methodological acumen needed for the DNP project; and the scope of the DNP project.

The consensus was that the DNP methodological skill set should extend beyond a basic critique level and should incorporate outcomes evaluation. Concerns were expressed that some DNP curricula may not provide sufficient coursework to build methodological expertise for the desired skills in quality improvement outcomes evaluation.

It is evident that there is a wide variety of credit hours required in DNP programs (Mundt & Milone-Nuzzo, 2012). The number and foci of the methods and statistics courses also appear to vary widely across programs. Completion of a statistics course is typically required for admission; however, there is a wide variation in the requirements of how recent the coursework must be (Mancuso & Udlis, 2012). The minimum curriculum requirement reported by conference attendees was the completion of one graduate-level statistics course (which may be biostatistics or organizational analytics in the post-master’s DNP programs). Some DNP programs were reported to have up to three methods courses. One faculty member reported that their program is considering teaching a single-case design, including a program evaluation course, and expanding the emphasis on implementing quality improvement. Another member mentioned that action research is an important component. Other learning activities presented included SPSS® statistical package immersion workshops, Collaborative Institutional Training Initiative training, and helping students to learn the institutional review board submission and approval process.

The second component to the question, which is an important issue for national dialogue, was “What constitutes the foundational methodological skills for the DNP graduate?” The statistical skills identified as being needed by DNP students to execute their future roles included data management, using statistical programs such as SPSS or SAS; aspects of relational analyses; understanding the value of data; and being able to identify and understand the methodology appropriate to addressing the clinical issue. In addition, because qualitative approaches are also important in practice and health systems improvement, exposure to both quantitative and qualitative methods and the associated software should be considered as part of the DNP curriculum content.

“How is methodological expertise reflected in the project?” was the final component of the question presented to the group. It was acknowledged that methodological expertise to execute the project is acquired over multiple semesters. One approach that was shared is to have students identify the clinical issue addressed by the project on entry into the program and that some aspect of the project should be addressed as students progress through their coursework (similar to a comment generated by question two).

---

**TABLE 2**

Distribution of Universities and Colleges Participating in the Committee on Institutional Collaboration Invitational Conference by Carnegie Foundation for the Advancement of Teaching Classification

<table>
<thead>
<tr>
<th>Carnegie Foundation Classification</th>
<th>No. of Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RU/VH: research universities (very high research activity)</td>
<td>32</td>
</tr>
<tr>
<td>RU/H: research universities (high research activity)</td>
<td>23</td>
</tr>
<tr>
<td>DRIU: doctoral and research universities</td>
<td>7</td>
</tr>
<tr>
<td>Master’s L: master’s colleges and universities (larger programs)</td>
<td>34</td>
</tr>
<tr>
<td>Master’s M: master’s colleges and universities (medium programs)</td>
<td>3</td>
</tr>
<tr>
<td>Master’s S: master’s colleges and universities (smaller programs)</td>
<td>2</td>
</tr>
<tr>
<td>Special focus: institutions awarding baccalaureate or higher level degrees where &gt;75% are in a single field of set of related fields (e.g., medical schools and medical centers)</td>
<td>12</td>
</tr>
<tr>
<td>Total participating universities and colleges</td>
<td>113</td>
</tr>
</tbody>
</table>

* An additional three universities represented by conference participants do not participate in the Carnegie Foundation classification.
Many variations in the DNP project requirements became evident, especially for the final deliverables. This is consistent with the literature (Florczak, 2010; Magyar, Whitney, & Brown, 2006; Mundinger, Starck, Hathaway, Shaver, & Fugate Woods, 2009; Udlis & Mancuso, 2012). The methods used ranged from five-chapter reports to manuscripts for journal submission. In some cases, up to three articles were required, presenting the challenge of how three articles could be generated describing a practice change. Those participants who had used the five-chapter method stated they would not use this method again, as the final product in this form cannot be readily disseminated. The consensus demonstrated that sharing best practices is important and that publishing the DNP project is a way to accomplish this outcome. Faculty reported that requiring publication-ready articles as the project deliverable engendered a considerable amount of time on the part of the faculty in developing students’ writing capabilities and mentoring them through the process.

**Question Four**

*How do DNP projects and capstones differ between the various functional areas of practice (e.g., clinical executive, public health, and advanced practice registered nurse [APRN] roles)?*

The group did not identify tremendous differences between the outcomes required for the various functional areas. The common theme emphasized was that measurable outcomes of the impact of the project were important. The issue of the time required for the DNP student to implement and then evaluate the project, particularly in the case of post-master’s DNPs, was discussed. Also, the flexibility of choosing a project in consideration of students’ interest, faculty expertise, and clinical need was identified as a “freedom.” The Standards for Quality Improvement Reporting Excellence (Davidoff et al., 2008) have been used as a framework for reporting quality improvement projects in at least one of the institutions represented in this discussion.

The need for BSN-to-DNP programs preparing APRNs was specifically mentioned. Participants emphasized the importance of both learning the practice skills of the APRN and honing additional skills, such as leadership, policy development, and implementation and evaluation of best practices on the patient and system levels.

**Question Five**

*What are the challenges in determining what constitutes an acceptable DNP project or capstone?*

Multiple factors were identified by the responding group as influencing the desired scope of the DNP project. Factors mentioned included faculty, student, and school expectations and how these align with the academic institution’s mission and goals. Another challenge discussed was the degree of engagement that occurs between the school and an outside agency during the course of the project.

The increasing number of DNP students in an environment of limited faculty was indicated as a concern. The scope of the projects directly influenced the adequacy of faculty resources to support DNP student projects, specifically the workload associated with guiding student projects. One suggestion offered was that a team approach, where multiple students work on a collaborative project with one faculty member, could be a way to build efficiency with a large number of students. More on this topic is included in question seven.

Aligning student and faculty expectations regarding the experience and ultimate deliverable from the project was another identified faculty-centric challenge. It was noted that faculty who have a PhD degree tended to model the project after the dissertation process, expecting the product to resemble the five-chapter dissertation. However, this may change as more DNP-prepared nurses hold faculty appointments and are available to serve as project mentors.

Another area of discussion centered on the scope of the project. The question was raised about whether it was best to take on a large clinical issue and go through only one or two phases of the change process or if it was better to undertake a more manageable small project, where the entire process could be implemented. However, some group members expressed that if a project was too narrow in scope, students may have limited opportunity to develop the skills crucial to implementation, such as systems negotiation, change management, and leadership. The wide variety of projects and deliverables (even within the same program) underscored the diversity of project interests experienced by DNP students. To better define the scope of a DNP project, one suggestion was to have a listing of a variety of acceptable deliverables. The group consensus around this issue was that the project should have some kind of practice impact and relevance, and if competencies of the DNP are met, then the project is appropriate.

**Question Six**

*What is considered an acceptable deliverable as a result of the DNP project or capstone?*

The general consensus was that some form of public presentation and written submission would be appropriate. Table 3 summarizes the various ways these oral and written outcomes might be attained. It was noted that in contrast to the Dissertation Abstracts International, which is available for PhD dissertation indexing, there is no central repository for DNP projects.

**Question Seven**

*What is the prevailing attitude about DNP projects and capstones done in small groups? Could projects be relevant if they are accomplished by an intraprofessional team? What might that look like?*

There was disagreement about the small-group approach to the DNP project. One set of faculty was cautious about the idea of small-group collaboration, stating, “We are curious, attracted to the idea, but skeptical as yet.” The issues of individual accountability and the congruence with university expectations for individual scholarship were mentioned. The key points of this perspective were that there should be no more than two students on the same project and that each student should address an independent question relative to the topic, with a recommendation that there be separate final papers. It was considered that the review of literature might have a different emphasis based on the unique aspect of each component of the larger project. Another expressed concern was that the methodology would be
the same across projects, and it would be important to ensure that each student learned how to design and develop the methodology.

A second group of conference participants was more open to the idea of small groups on a large project. For example, one project addressing a single clinical problem could be implemented at different sites, presenting distinct organizational challenges. The specifics of the sites would contribute to the uniqueness of the experience (different program issues, evaluation data, and economic impact) and could be addressed individually by each student’s project. Each student’s role and deliverable would have to be clearly articulated, perhaps including a contract that would address individual contributions with peer evaluation. In addition, whether a student is in a BSN-to-DNP or post-master’s-to-DNP program may also have a bearing on the success of working on a group project, given the limited clinical experience of the BSN-to-DNP student. Because of individual progression through coursework and the inevitable “speed bumps” encountered by students, the ability for all students to maintain a similar level of engagement with regard to implementing a large project that entails complex systems change might be difficult.

**Question Eight**

What is the one area that you see as the most critical for consensus related to the DNP project as it relates to the expected outcomes of the graduate?

A wide range of responses was received, indicating there is much work to be done to build a national consensus around the DNP project. The group indicated that there remains inconsistency among programs with regard to the scope of the project (e.g., descriptive versus implementation of clinical practice change, group versus individual) and faculty interpretation of what components are essential in a project. In addition, further clarity and distinction were needed between the master’s project or thesis, the DNP project, and the PhD dissertation.

Participants articulated the need for DNP graduates to engage in the behaviors and practices during their project that would demonstrate their ability to translate best evidence into practice, which would include the ability to generate sustainable change and the implementation of systems thinking. The ability to select appropriate measures and to use systems data to analyze outcomes, including a cost analysis following an implementation project, was deemed important. It was noted that accomplishing sustainable change over the time allotted for DNP education may be challenging.

It was felt that the DNP project reflected the growth of students and displayed the endless possibilities of how nursing can positively change patient outcomes. The evolution of the competencies during the DNP program experience was valued highly by some as evidence of competency acquisition, whereas others emphasized that demonstrated competency was inherent in the outcomes of a systems- or population-specific project.

**SUMMARY**

With the explosive rate of DNP program growth over the past 10 years and the various forms of curricular approaches (BSN-to-DNP compared with post-master’s-to-DNP), along with the lack of congruence by stakeholders (e.g., faculty and employers) regarding the practice skill set, it is not surprising that there is variety in the tenets and attributes of the DNP project. Although the participants generally embraced the concept and value of the final project, there remains a lack of clarity in the scope, execution, and faculty interpretation about what is required of a successful DNP project.

In general, the participants at this conference agreed that as the DNP education prepares practitioners to address organizational efficiencies, policy generation, and health care economics and systems, the project should be distinct from the master’s terminal product and the PhD dissertation. In addition, the participants expressed that the scope of the project should include outcomes evaluation, with an emphasis on practice scholarship, that goes beyond critique and gap analysis. On the other hand, there was a lack of consensus on what this means in terms of coursework related to analytics. Of the programs participating at this meeting, a wide range of cur-
ricular content and course hour requirements in statistics and methods was represented.

Strong agreement was demonstrated that DNP students should complete a public presentation of their work. Also, there was consensus that the DNP project has value for both students and faculty. One advantage associated with the project that was identified repeatedly is the new avenue of collaboration and enhanced communication created between nursing academia and nursing practice.

A concern expressed was the limited number of faculty who can serve as mentors and advisors for the DNP project. This is especially significant based on the large numbers of students entering DNP programs and the concurrent shortage of nursing faculty, specifically those with a practice doctorate. Indeed, clinical scholarship may be less emphasized when the advisor is PhD prepared, where knowledge generation is the primary focus. The idea of having teams of DNP students work together on a large project was not universally supported. The greatest concern about this approach centered on accountability and university expectations of individual scholarship. Based on discussion at the meeting, a range of scholarly rigor with regard to the DNP project was evident, with the highest level of expectation most commonly associated with those institutions that awarded other doctoral degrees.

The conversation generated by the eight questions clearly indicated the need for further discourse regarding the issues presented, especially with key stakeholders such as the employers of DNP-prepared individuals. Experiences with the deployment of the DNP graduate need to be shared. Articulating the impact of the DNP graduate on salient patient and systems outcomes, beginning with the project, will lead to curricular alignment and enhanced interdisciplinary collaboration. In addition, generating this evidence will drive policy, as well as increase public understanding and acceptance of the critical contribution of the practice doctorate, toward improving health care delivery systems.

REFERENCES


