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# Research Brief

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## An Enhanced Actualized DNP Model to Improve DNP Project Placements, Rigor, and Completion

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### Abstract

Doctor of nursing practice (DNP) projects are summative evaluations of enactment of the DNP Essentials. However, information about structure, process, and outcomes of DNP projects is scarce. Guided by an enhanced actualized DNP model, this study tested the effect of a PhD-DNP-site mentor model to guide DNP projects. Time-to-complete assignments, defense, and graduation improved; high satisfaction for students, mentors, and faculty were found; and a strengthened academic-practice partnership occurred, leading to additional student placements. Broader testing of the enhanced model in various size and types of academic-practice settings is needed prior to use.

**KEY WORDS** Actualized DNP Model – DNP Project – Enhanced Actualized DNP Model

A report by the American Association of Colleges of Nursing (2015) provides guidance on the implementation of the doctor of nursing practice (DNP). According to the report, DNP projects should focus on change that can influence health care outcomes through direct or indirect care and/or a system or population change. They should be conducted in a setting congruent with the

program of study (e.g., older adult primary care nurse practitioner [NP] in geriatrician office). They should evaluate a process and/or outcome and include a plan for sustainability. Finally, academics should design new models and processes to enact DNP projects to improve efficiency, effectiveness, and rigor and support student learning.

A survey by Dols, Hernandez, and Miles (2017) found variation among academic settings implementing DNP projects, with 87 percent of faculty dissatisfied with the process and products. Faculty were not knowledgeable in evidence-based practice or quality improvement. Challenges with DNP project site placements were a barrier to enacting the DNP project. There was also a lack of consensus on what a DNP project entails and no consensus on what “rigor” for a DNP project entails (Waldrop, Caruso, Fuchs, & Hypes, 2014). Overall, DNP projects should be recognized as doctoral work (Chism, 2019) that influences a health care system and/or patients (Moran, Burson, & Conrad, 2017; Waldrop et al., 2014).

Consistent with the literature, our college of nursing had several barriers to DNP project completion. First, locating the number and quality of sites needed for students to conduct DNP projects was challenging. Second, faculty had to review student papers multiple times prior to attainment of the expectation. Third, students were requesting additional time to complete DNP projects. Finally, time to graduation was longer than desired.

This article reports on research that applied an enhanced actualized DNP model (Burson, Moran, & Conrad, 2016) to guide improvements in the DNP project process. The model describes the structure and process that impacts practice doctorate outcomes for advanced nursing practice knowledge (see Supplementary Digital Content 1 at <http://links.lww.com/NEP/A94> for figure).

The enhanced model was tested in six DNP projects at one practice site and compared to projects of students who were not exposed to the enhanced model (retrospective publically

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available data were used). Objectives were threefold: 1) improve time-to-completion of assignments, defense, and graduation; 2) improve satisfaction of students, faculty, and site mentors; and 3) enhance an academic-practice partnership. Our intention was to increase the time to complete the project while reducing time to graduation, simultaneously improving satisfaction and our academic-practice partnership relationship.

## METHOD

A quasiexperimental mixed-method design with an intervention group and control group was used to answer three research questions: 1) Did use of the enhanced model improve time-to-complete DNP project assignments, defense, and on-time graduation? 2) Were students, faculty, and site mentors more satisfied using the enhanced model? 3) Was the academic-practice partnership improved?

The setting was a college of nursing located in the Midwest with 120 DNP students in three tracks (adult/older adult NP, child/adolescent NP, health system leader). The site for the intervention group was a Magnet health system with 14 acute care hospitals and 184 primary care offices; the control group used 14 different sites (primary care, community based, nursing home, hospital). The university institutional review board (IRB) approved the project. The control group consisted of retrospective publically available data from 17 April 2017 graduates. The intervention group consisted of a convenience sample of six students completing DNP projects between January 2017 and April 2018. Students in the intervention group were provided a description of the study, consented to participate, and were enrolled.

Both groups received a DNP project handbook, the online Blackboard platform, which provided information on the project process, and used a textbook containing the model (Moran et al., 2017) in coursework. The intervention group also received a one-hour education session to review the enhanced model, assignment expectations (literature review, manuscript format), and timelines. The intervention group also participated in a two-hour session at the site to design standardized workflow, develop relationships, and identify project ideas and scope.

Each student in the control group had an advisor, selected by the student, who provided feedback throughout the project and another faculty member who read the final paper. Students in the control group visited the site initially, presented a project focus, and tried to engage the site in the project. The faculty advisor for the control group visited the site once each semester, and the project plan defense was held at the university.

The intervention group had a PhD-prepared advisor and DNP-prepared second faculty member, both assigned by the graduate program director. The PhD-prepared advisor focused on use of theories, models, and frameworks; methodology; analysis; and result reporting; the DNP-prepared team member focused on clinical expertise and implementation strategies. The intervention group faculty simultaneously reviewed assignments and provided feedback to the student. The site mentor identified the project foci, and the faculty guided the student conducting the project. The intervention group PhD-DNP faculty visited the site with the student to meet the mentor, inform the mentor of role and responsibilities, construct the prospectus outline, obtain data for the assessment, and agree upon a timeline. Update monthly meetings and the plan defense were conducted at the site (see Supplementary Digital Content 2 at <http://links.lww.com/NEP/A95> for table with intervention and control group components).

To examine the effect on enhanced model outcomes, measures of time-to-complete assignments, defense, and graduation were the number of days from start to finish. We defined on-time graduation for this study as completion of the DNP program in four years of full-time study. To examine satisfaction of students, faculty, and site mentors, we designed a survey based on the literature and identified barriers. We measured academic-practice partnership improvement by comparing of the number of students conducting projects at the site prior to, during, and after this study. Data were collected via course rubrics from the registrar and advisor and on surveys. Analysis included descriptive statistics, *t* test/chi-square, and compilation of field notes.

## RESULTS

All six participants in the intervention group were women, and all were white. Fourteen of the 17 participants in the control group were women; 16 were white, and 1 was African American. Both groups had students in both NP tracks: adult/older adult (intervention,  $n = 5$ ; control,  $n = 13$ ) and child/adolescent (intervention,  $n = 1$ ; control,  $n = 4$ ). No statistical differences were found between the groups.

The first question examined if time to assignment completion, defense, and on-time graduation improved with the enhanced model. As desired, the number of days to complete the project increased ( $p = .03$ ) in the intervention group (343,  $SD = 69.0$ , range 320 to 366) compared to the control group (228,  $SD = 109.5$ , range 201 to 310).

The entire intervention group obtained IRB determination three semesters prior to graduation; the control group obtained IRB determination in the final semester prior to graduation. Prior to meeting faculty expectation, the intervention group submitted 3.3 ( $SD = 1.21$ ) draft organizational assessments, 3.3 ( $SD = 1.03$ ) draft literature reviews, and 2.8 ( $SD = 1.30$ ) draft project plan defenses. No assignment data were available on draft papers from the control group. However, faculty who advised the control group faculty anecdotally reported 8 to 10 draft papers. A higher rate of on-time graduation was found in the intervention group ( $n = 5/6$ , 83.3 percent) than the control group ( $n = 10/17$ , 58.8 percent;  $p = .02$ ).

The second question examined if students, faculty, and site mentors were satisfied using the enhanced model. All students in the intervention group felt advisors who visited the site frequently facilitated project completion and that faculty and site mentors guided the project. All faculty ( $n = 2$ ) reported reduced burden to reviewing student papers and improved student, faculty, and site mentor communication. The three site mentors who provided feedback stated role and expectations were clear.

The third question examined the academic-practice partnership. The intervention group site provided a standardized workflow for the identification of project topics, mentors, and IRB processing and allocated space on an internal drive for data storage and usage. The intervention group site appointed the PhD-DNP-prepared faculty to the research council as ex officio members to review opportunities for student projects and report project results. The control group sites did not provide standard workflow, internal drives, or routine faculty interaction with other team members. The number of student projects conducted at the site where the study occurred increased from 2 in 2016–2017 and 5 in 2017–2018 to 22 planned in 2018–2019.

## DISCUSSION

This study found the enhanced actualized DNP model (Burson et al., 2016) operationalized enactment of the DNP project and improved

the structure, process, and outcomes of the educational endeavor. Overall, collaboration among the PhD-DNP-prepared faculty, site mentor, and student were enhanced. Students had less difficulty in locating a site to conduct the project when faculty led the process. “Wicked” problems that kept site mentors awake at night informed student DNP projects and simultaneously met the health care organization’s strategic plan.

The number of drafts of the organizational assessment and literature review decreased, resulting in a reduction in faculty time to review papers. Students had more time to complete the project, which led to in-depth plans with more potential for sustainability. On-time graduation improved while high satisfaction was found for students, faculty, and site mentors. All project team members were informed throughout the process, which reduced questions during defense. A stronger academic-practice partnership formed that led to a standardized workflow and increased number of student placements. A stronger PhD-DNP-prepared faculty partnership formed with mutual respect for the education and skills of each doctorate, which contributed to students following scientific methods, having multiple appropriate measures, and demonstrating competency in the DNP Essentials. In summary, the enhanced model improved every facet of the DNP project structure, process, and outcome.

### Study Limitations

Data for this study were from a small group of students in a single university and site. Satisfaction was only measured in the intervention group. Participants were primarily female and Caucasian, thus limiting generalizability. The faculty time for reviewing organizational assessments and literature reviews were reported anecdotally in the control group.

### Future Implications

There are numerous implications for faculty: collaborate early and often with the project site mentor regarding the purpose of the DNP project; roles of the faculty, student, and mentor; the problem; and data availability, collection, and storage. Further analysis is needed in multiple settings with a larger, more diverse group of students to

include examination of student attrition, distress, and tuition cost savings. The sustainability of projects needs to be evaluated to further support academic-practice partnerships. The AACN (2006) DNP Essentials need further examination to evaluate what skills are enacted by students using the enhanced model. Finally, the value DNP-prepared nurses add to practice settings needs to be measured.

### CONCLUSION

Contrary to what others have found (Dols et al., 2017), the enhanced actualized DNP model (Burson et al., 2016) DNP project structure and process improved time to completion of assignments, defense, and graduation; increased satisfaction; and supported an academic-practice partnership. Operationalizing the model provided faculty with a deeper understanding of how students can conduct the DNP project. As recommended by the AACN (2015), our team designed an enhanced model, operationalizing the structure and process, then tested the model. The results of this study advance the science of doctoral nursing education by improving efficiency, effectiveness, and rigor and support student learning during completion of the DNP project.

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