CPED PROGRESS REPORT
Neag School of Education
University of Connecticut
October, 2008

The Neag School of Education (NSoE) is entering the fourth semester of its involvement with the CPED project. From its experiences the faculty team involved has learned a number of lessons about designing a doctorate of practice. Table 1 summarizes these lessons as well as the implications they have for revisions and modifications in the program.

Table 1: Summary of lessons learned and related implications

Lesson	Implication
• A student's initial definition and understanding of a problem of practice tends to have limited depth and breadth. This understanding can evolve into a more elaborate and focused perspective through an ongoing theory-to-practice inquiry process that (a) occurs within laboratories of practice and (b) is enriched by conceptual frameworks	• Core courses, inquiry courses, and laboratories of practice work best when they are integrated into an unified process
• If courses are structured in a specific way, students can write papers that have the potential to serve as pillars of a capstone project	• The capstone project can be developed through a student's coursework. It does not have to be a separate entity that is undertaken once coursework is completed
• Students understand new concepts and ideas best when they receive assistance in integrating the new perspectives within the existing mental models they use to guide their professional practice	• One way to enhance student learning and track student progress is to ask students to compose concept maps that integrate new ideas presented in the courses, results from their inquiry projects, and beliefs from their prior experiences

Lesson #1: Problems of practice (POP) and inquiry

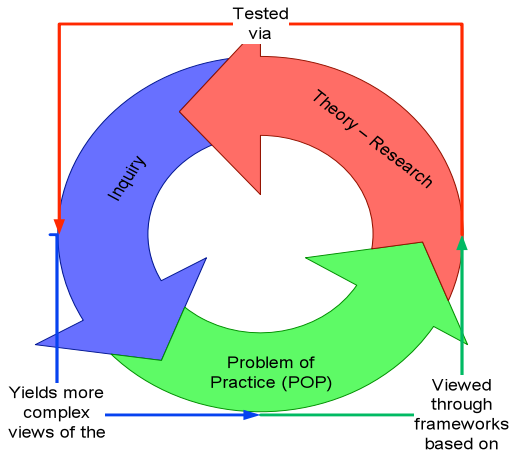
When we first designed our program we believed that students would enter with a solid understanding of the problem of practice that they wanted to explore. These problems, so we thought, could easily be sharpened during a first semester course into an issue that would provide a focus for their capstone research project. The results so far have surprised us. The process of defining and understanding a problem of practice is more complex and involved than we originally believed.

Most students enroll in our program with the intention of resolving a specific problem of practice. During Phase 1 of the program students develop the skill to review both qualitative and quantitative research articles critically. Using this skill they work on a first statement of the problem of practice they want to explore in their

capstone project. Most students began by framing their problems of practice in terms of implementing a specific solution (e.g., "How do I get teachers to adopt a new reading curriculum?") As they reviewed research studies critically, their views on the problem of practice became more complex. Over time, students began to shift the focus of their problems of practice from solutions to deeper root causes. In addition, students began to recognize that their problems of practice were complex and multi-faceted. For example, they often started to understand that a problem of implementing a new reading curriculum was better understood as a problem of enhancing student learning. In turn, further analyses of the literature led to a deeper understanding that their problem may be due to gaps in the evaluation system. With further analysis, the problem evolved into one related to building teachers' instructional capacity within an organizational culture that constrained large-scale professional learning.

When students entered Phase 2 of the program, we continued the focus on their problem of practice. We used a Theory to Practice Inquiry Cycle (TPI – see Figure 1) to integrate key ideas from the core courses with an inquiry process. Following the model, learners used concepts from a specific area of the research literature (e.g., professional learning, leadership) to frame an inquiry into their problem of practice within their own school districts (laboratories of practice). In turn, this inquiry helped them develop a more intricate understanding of the problem. As discussed in the next section, they continued working on their problem of practice through a sequence of TPI cycles. Each cycle is designed to foster a deeper understanding of their problem of practice.

Figure 1: Theory to Practice Inquiry (TPI) Model



Lesson #2: Building the capstone project

Figure 2 (next page) outlines a sequence of four TPI cycles. This progression is designed so that upon its completion students will have the foundational pillars for their capstone project.

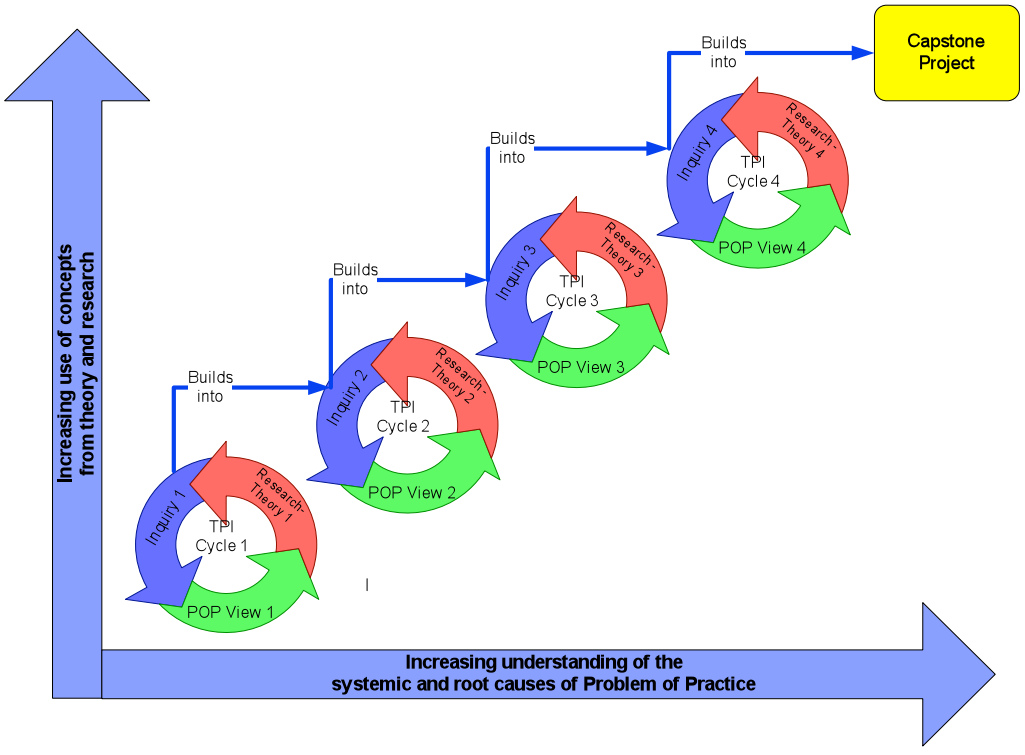
As described above, the process begins with TPI cycle 1. The problems of practice (POP) students brought into Phase 2 often included some tacit aspect of human capacity building, but they rarely included perspectives on how professionals learn best. If there was a mention of professional development included, the perspective rarely involved any ideas that were based on the evolving research in the area of adult learning (e.g., learning is an experience-based process). For this reason the Research-Theory phase of the first TPI cycle is designed to

have students consider how professional learning has an influence on their problem of practice. To prompt their thinking, they explore a set of research articles that outline a set of principles on how adults learn best.

In the Inquiry component of this TPI cycle they simultaneously explore via interviews the degree to which these principles are evident in the learning of professional educators. For their interviews they select individuals who have a history of success in addressing a specific POP. They asked their interviewees: "What's your understanding of this POP? How did you develop your proficiency in resolving it?" Their questions were formed around specific research-based principles of adult learning (e.g., aspects of a work setting often provide the most powerful supports for learning) that were covered in the Research and Concepts component of the TPI cycle.

At the end of the TPI cycle students write papers that analyze the similarities and contrasts between the research-based perspectives on professional learning and the results from their interview data. From this analysis they offer specific recommendations on how a process of professional learning could be used to address aspects of their problem of practice. Their papers demonstrated that as a result of a TPI process they gained not only a fuller understanding of how professionals actually learn but also a richer appreciation of how professional learning provided a frame to understand their problem of practice.

Figure 2: Building a sequence of TPI cycles into a capstone project



In their second TPI sequence, students are using research-based principles on leadership for large-scale instructional improvement to inquire within laboratories of practice (actual school districts) how these leadership principles work in practice. They also are exploring how these principles of leadership can be used to address their problem of practice. At the end of this TPI cycle they will write a paper that integrates empirical and conceptual scholarship into a theoretical framework against which they examine data in their districts.

Students will repeat this process of using the TPI cycle to explore the relationship between theory and practice in the areas of Education Policy Analysis and the Sociology of Education. As before the inquiry will occur within a school district (laboratory of practice). The papers students write as a result of these two TPI cycles will present analyses and recommendations on how the process of Policy Analysis and concepts from the Sociology of Education provide ways to address their problem of practice.

As students enter Phase 3 of the program (writing their capstone project), they will bring with them four papers that provide analyses of a specific problem of practice using information from the research literature as well as specific data from their own inquiry projects. Our plan is to use these four inquiry projects as pillars for their capstone project (See description of the capstone project, page 8).

Lesson #3: The value of using concept maps

During Phase 1 of the program, we found that students were skilled at reading two or more articles and providing a descriptive summary of the information. At times these descriptions had a "book report" quality to them. Having students write more in-depth analyses of how the research linked to their problems of practice proved to be more difficult.

As students entered Phase 2 we found that the descriptive book-report format of their writing continued. They would describe themes from the research literature and then describe in detail the results from their inquiry project. They struggled, however, when they had to integrate into analyses information from the readings and data from their inquiry. They also labored when they had to link the two sources of information into recommendations that addressed their problem of practice.

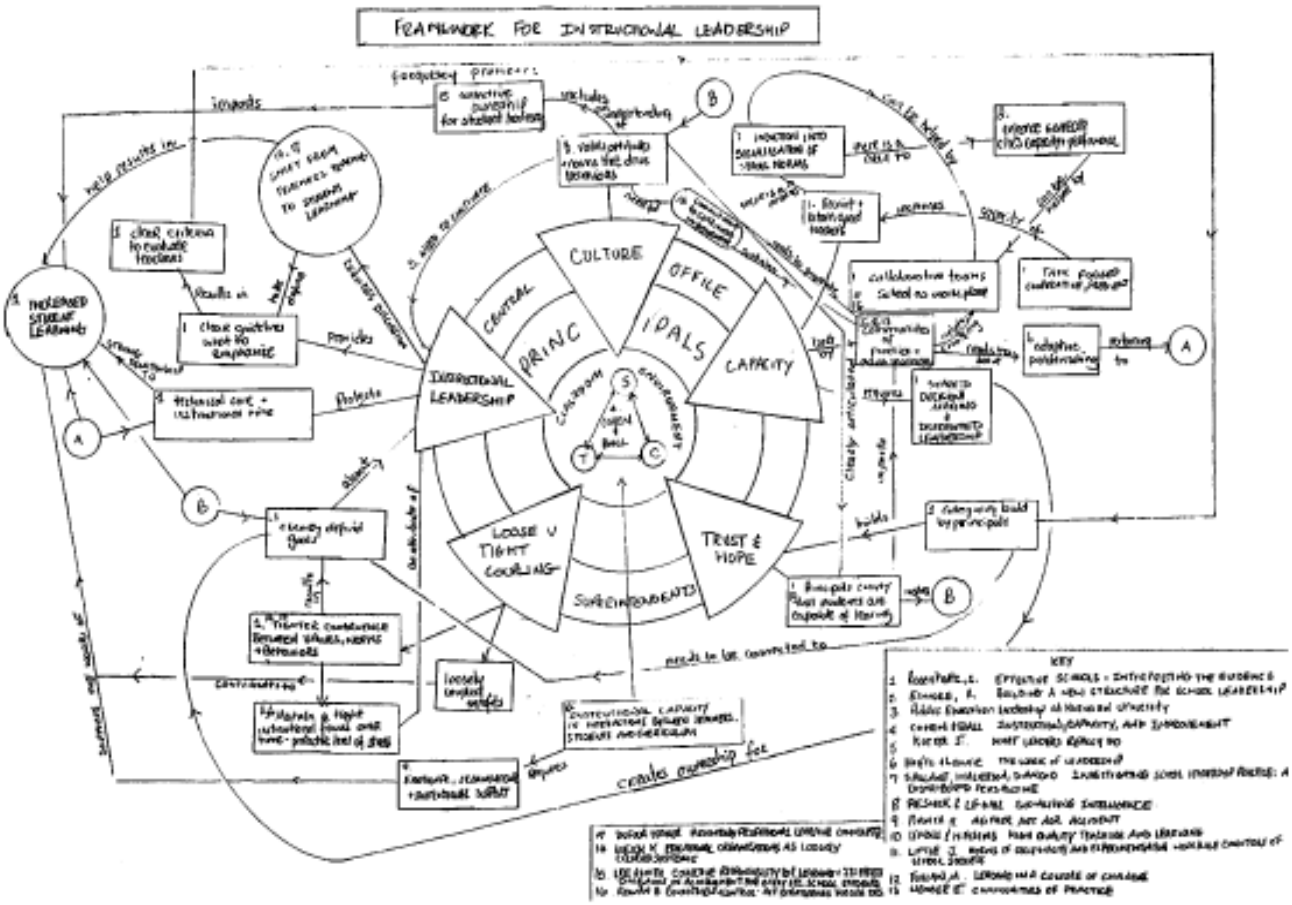
To address this difficulty we introduced them to "concept maps." In these graphic representations students: (a) illustrated key ideas from the research literature, key themes from their inquiry project, and key dimensions of their problems of practice and (b) indicated the nature of the relationships between these various items.

As expected, students followed a developmental process as they became more skilled at using the maps. Slowly, over the course of a few semesters, they began to describe the maps as one of the most valuable components of the program because the format helped them to key concepts from the research with the themes from their inquiry projects.

During the early stages of using these maps they struggled and often looked to their instructors for the "right" answer, the "correct" way to represent their ideas. They also struggled with building complexity into their representations. For example, their first concept maps often used relatively simple illustrations that depicted a linear A→B→C flow of ideas. To help them unpack the complexity within these linear maps, we asked them to discuss their maps with other students. Through this process the uncomplicated A→B→C process typically evolved into a more complex set of relationships – ones that included feedback loops and multiple levels of recursion.

As we continue our emphasis on concept maps, the intricacy of the maps continues to grow. Recently, one student submitted a very elaborate concept map that integrated ideas from the course sequence on professional learning with his current involvement in the TPI cycle on "leadership" (Figure 3). This illustration is included here as an exemplar of how students' concept maps are evolving.

Figure 3: Example of a concept map



This map was particularly striking for two reasons. First, it shows how this student integrated many issues in the research literature (e.g., issues related to instructional leadership) with his inquiry within his district as well as his own experiences as a superintendent. Second, it showed the progress he was making in the depth and breadth of the thinking he was bringing to his work. On this last point, it also showed the progress he was making in the program. At earlier points in the program he tended to rely on his own experience and beliefs to support his recommendations. In this concept map he clearly shows a good deal of growth in weaving ideas from the research literature into the mental model he is using to guide his thinking.

This latter point is most important to us. Our goal in the program is to enhance the ability of students to integrate ideas from many sources – prior experience, the research literature, data from inquiry – into a mental model that they can use to guide their professional practice. Concept maps are proving to be a valuable tool in this process. These maps provide a mental sandbox where students can test out the relationships between ideas. The maps also enable them to see how seemingly disparate notions and experiences actually fit together. We believe that this ability to think in relational terms – to reason by analogy –is one of the most important skills an educational leader can possess. Because of their effectiveness, we intend to continue using concept maps in each phase or our program.

Program Summary
(Current Perspective)

The Neag School of Education EdD program is based on a key principle: How students learn is as important as what they are taught. Following this principle our belief is that the professionals – the adults with rich experiential backgrounds – who are enrolled in the program learn best when their learning focuses on:

- Enriching the mental models and habits of mind they use to guide their practice,
- Engaging them in rich experiences that add depth and breadth to these mental models, and
- Placing them in school districts as "laboratories of practice" where they can test the efficacy of these models.

From this perspective an effective instructional process for students in the NSoE EdD program involves them in ongoing cycles of Theory-to-Practice Inquiry (TPI). Each cycle:

- Engages students directly in inquiry about a complex problem of practice;
- Enriches this inquiry with conceptual frameworks from the research literature;
- Builds students' capacities (habits of mind) to formulate in-depth analyses that integrate primary data from their inquiry projects with perspectives based on the research literature;
- Requires students to formulate and defend recommendations to address complex problems of practice.

Core foundation courses, inquiry courses, and laboratories of practice

The NSoE EdD program consists of an integrated sequence of 6 core experiences. Each experience engages students in inquiry about a problem of practice that they choose. The problem is framed by concepts that derive from the research literature. Because each inquiry occurs within students' own school districts, these school districts serve as laboratories of practice.

Year 1: Fall Semester

- Inquiry Skills for Practitioners - Qualitative. (3 credits)
- Applied Inquiry and Research in Educational Leadership - Qualitative (3 credits)
- Outcomes: (a) Participants' first statement of the problem of practice that will provide a focus for their capstone project - a statement that is informed by qualitative research studies; (b) Participants' understanding of how qualitative methods can be used to explore problems of practice

Year 1: Spring Semester

- Inquiry Skills for Practitioners - Quantitative. (3 credits)
- Applied Inquiry and Research in Educational Leadership - Quantitative (3 credits)
- Outcomes: (a) Participants' revised statement of the problem of practice that will provide a focus for their capstone project - a statement that is informed by quantitative research studies; (b) Participants' understanding of how quantitative methods can be used to explore problems of practice.

Year 1: Summer Semester

- Professional Learning (3 credits)
- Applied Inquiry into Professional Learning (3 credits)
- Outcomes: Ability to complete an inquiry project on professional learning including: (a) collecting data; (b) analyzing data using key themes in the research literature on professional learning; (c) making recommendations on how professional learning can be used as one strategy to address a problem practice; (d) weaving items "a" to "c" into a paper that can be can serve as a pillar for the capstone project.

Year 2: Fall

- Leadership for Teaching and Learning (3 credits)
- Applied Inquiry into Leadership for Teaching and Learning(3 credits)
- Outcomes: Ability to complete an inquiry project on the role of the leader in school improvement including: (a) collecting data; (b) analyzing data using key themes in the research literature on leadership and school improvement; (c) making recommendations on how leadership can be used as one strategy to address a problem practice; (d) weaving items “a” to “c” into a paper that can be can serve as a pillar for the capstone project.

Year 2: Spring

- Policies for Improvement (3 credits)
- Applied Inquiry into the Role of Policy in School Improvement (3 credits)
- Outcomes: Ability to complete an inquiry project on the role of the policy in school improvement including: (a) collecting data; (b) analyzing data using key themes in the research literature on policy and school improvement; (c) making recommendations on how policy can be used as one strategy to address a problem practice; (d) weaving items “a” to “c” into a paper that can be can serve as a pillar for the capstone project.

Year 2: Summer

- Sociology of Education: Implications for School Improvement (3 credits)
- Research Practicum: Inquiry into the role of sociological perspectives in school improvement (3 credits)
- Outcomes: Ability to complete an inquiry project on the role of sociological perspectives in school improvement including: (a) collecting data; (b) analyzing data using key themes in the research literature on sociology and school improvement; (c) making recommendations on how sociological perspectives can be used as one strategy to address a problem practice; (d) weaving items “a” to “c” into a paper that can be can serve as a pillar for the capstone project

Year 3: Fall

- Graduate Seminar (6 credits)
- Outcome: Integration of the four inquiry papers into a working draft of the capstone project
- Year 3: Spring
- Graduate Seminar (3 credits)
- Outcome: Integration of the four inquiry papers into a penultimate draft of the capstone project

Year 4: Fall and Spring

- Depending on students' progress, oral defense of capstone project

Year 4: May

- Projected graduation date

Capstone Project

The Capstone project is framed in terms of four requirements:

- Requirement 1: Provide an in-depth analysis of the structural features, cultural dimensions, and root causes of the problem of practice that the study explores. This analysis will also include research studies that outline the depth and breadth of the problem.
- Requirement 2: Provide an integrated, multi-dimensional lens, one that pulls from all four TPI cycles, to view the problem of practice.
- Requirement 3: Provide a set of specific recommendations for addressing the problem of practice. Each recommendation will be based on a structural, cultural, and systemic analysis of the problem of practice. The recommendations will also be built upon information candidates collected in their respective inquiry projects (year 1 summer to year 2 summer) as well as specific references to the research literature.
- Requirement 4: Provide strategies for implementing the recommendations. These strategies would include considerations of the limits of the inquiry projects that informed the recommendations as well as practical strategies for building the support networks required to implement the recommendations.

Student Feedback

As we move along in the program we are collecting comments and feedback from students. The sections that follow provide representative comments from students on the key features of our program.

On the Cohort Structure & Professional Community:

- *This is the first experience in my many, many years of being a student where a cohort comprised of individuals became a collective unit. I feel, and I'm pretty certain we all feel, that each of us is committed to the success of each other.*
- *For the past year, the Ed.D. cohort has been the professional learning community I have longed to have in my own school district…*

On the Pedagogical Philosophy of the Program:

- *I feel as though this new approach is highly effective in that it is combining conceptual knowledge, current research, research techniques, a collaborative environment, and metacognitve skills to build a leadership capacity in all of us that is deep, readily accessible, and analogical.*

On the Problem of Practice focus:

- *But in addition, the program's strength is found in the focus on [my] very real and genuine problem of practice. Coursework, research, case studies, and data gathering are all based on what I face each day in my school district. My time is not being wasted on a fictitious problem or that of a person/school/district far, far away. My school work is all about my work--there is a seamless integration of what I do during the day and what I study/research in class.*

On Developing Cognitive Skills/Analogical Reasoning:

- *Finally, I think this program is on the cutting edge of building and deepening our framing, thinking, and reasoning skills...something that no educational program I have ever been apart of has approached.*
- *I have learned to use research as a tool to strengthen my decision making and rationale for making those decisions throughout my practice as a school leader. I have learned to push myself to use colleagues and my own reasoning ability to expand my mental models (how I see issues) in order to gain a broader perspective of issues and potential solutions. I have learned to think more critically about all issues related to school improvement and leadership.*
- *Most critically, this program is causing me to wrestle with who I am as a leader and how I go about doing the work of 'leading'. It even has me thinking about my long-held definitions and notions of leadership. It is causing me to pause, ask myself more questions, and force myself to take part in more inquiry before leaping to conclusions/decisions.*

Overall Assessment:

- *Quite simply, this is the best professional learning experience I have ever had in education. The level of critical analysis, the quality of instruction, and the rich text article of practical areas make this a great program.*