The purpose of this paper is to examine signature pedagogies for the education doctorate. Three California State University campuses that have started new Ed.D. programs examine practices that distinguish the education doctoral experience from other professions. Embedded field work, the professional seminar, and the research and writing support sequence can set a new direction for development of educational leaders.

Introduction
The California State University (CSU) system launched its first independent doctoral programs in education in 2007 shortly after enabling legislation (Senate Bill 724) was passed as a means of addressing the serious public need for highly qualified educational leaders in California (See: Bureau of Labor Statistics, 2008; California Postsecondary Commission, 2000) Several CSU campuses had already been offering joint doctoral programs with private universities The CSU system provided guidance for campuses to develop programs that would incorporate new and innovative thinking about the education doctorate while maintaining rigor. They also relied on lessons learned from experiences with joint doctoral programs.

Purpose of the Paper
CSU campuses entered the education doctoral arena as Ed.D. programs across the country were undergoing scrutiny and revision. Shulman, Golde, Bueschel, and Garabedian (2006) suggested a new approach to doctorates in education that might better serve the goals of connecting theory and practice while preparing highly qualified educational leaders. In the summer of 2007, the Carnegie Project on the Education Doctorate (CPED)
brought together faculty, graduate students, and other campus leaders from 22 universities and colleges from across the nation. CPED is a five-year endeavor to strengthen the education doctorate, in part by adopting pedagogies that incorporate professional practice to a greater extent than currently exists. At the request of the CSU leadership, one of its campuses was invited to participate in the project, with the understanding that its representatives and leaders from the system would guide a parallel process with all CSU campuses offering doctorates in education.

The CPED project has raised provocative questions about how doctoral programs in education should be transformed and delivered. A key concept underlying this transformation in program and delivery is what Shulman (2005) referred to as signature pedagogies that “form habits of the mind, habits of the heart, and habits of the hand... they prefigure the cultures of professional work and provide the early socialization into the practices and values of a field” (p. 59). The goal of this movement towards redesign and transformation of the education doctorate is two-fold: to rethink and re-claim the research doctorate (PhD) and to develop a distinct professional practice doctorate (P.P.D.), whether it continues to be called an Ed.D. or is given another name.

The purpose of this paper is to examine the signature pedagogies at three of the first seven CSU campuses that have begun Ed.D. programs. The authors identify the three distinct signature pedagogies, describe how each is being implemented and evaluated, and share emerging benefits and lessons learned as the practices are being implemented.

**California State University System Context**

The CSU responded quickly to the need for doctorates in Educational Leadership focusing on PreK–12 and Community College leadership. Individual campuses, the CSU Academic Senate, and the system leadership, identified and adopted distinctive features for the new CSU professional doctorates in education. They include:

- Reform-based curriculum designed to prepare transformational education leaders;
- Authentic involvement of P–14 partners in all aspects of the doctoral program;
- Cohort learning communities that promote collaborative problem-solving with faculty and peers;
- Scheduling options designed for working professionals to include concentrated, non-traditional, evening and weekend classes;
- Rigorous applied dissertation research exploring leadership approaches for significantly improving P–14 student learning.

Each of the three universities contributing to this paper was one of the CSU campuses to implement education doctorates. Their program goals are aligned with the overall mission of the CSU education doctorate. The
programs strive to develop leaders who are: experts in educational leadership; critical thinkers informed by scholarly literature; change agents; and self-aware, ethical professionals who value and promote diversity. Instruction and advisement are provided to these practitioner scholars by a blend of highly qualified faculty and practitioner experts who hold terminal degrees (e.g., superintendents and community college presidents). One campus (Fresno State) is the CSU representative to the CPED project, and the other two (Long Beach and San Diego) are full participants in the parallel CSU-CPED process. This participation has led each of the three campuses to study, identify, and develop signature pedagogies for their respective programs.

**Signature Pedagogies**

Signature pedagogies are a central theme in CPED. Shulman (2005) defined signature pedagogies as the characteristic form of teaching and learning, “that organizes the fundamental ways in which future practitioners are educated for their new professions” (p. 52). They are teaching and learning practices that are unique to particular professions. The case dialogue method in law and clinical rounds in medicine are examples. These common practices have the potential to become signature pedagogies that engage candidates in professional best practices as they become a part of a learning community.

One current practice, the completion of the dissertation, might be considered a signature pedagogy. Walker, Golde, Jones, Bueschel, and Hutchings (2008) criticized the traditional apprenticeship model used in many dissertations in which a student works with just one faculty member to write the dissertation. While an advantage of this mentoring relationship is that it often has lasting positive effects, they suggested that the steps of developing questions and research habits should be made more visible through explicit practice. There should be relationships with several faculty members, not just one; norms and standards should be explicitly discussed; and there should be recognition of doctoral students.

Further, Walker et al. posited that a good apprenticeship relies on respect, trust, and reciprocity. These qualities are not only important in the relationship with the dissertation advisor, but they become the basis of an intellectual community. Respect for students gives them a sense of themselves as professionals and leads to the trust necessary to try new ideas. The relationship should result in both the student and the professor learning from one another.

Signature pedagogies can also be an important part of the doctoral experience before the dissertation stage of the program. Core and specialization courses may include signature pedagogies such as case study assignments, embedded fieldwork, service learning, and assignments that have immediate practical application. The nature of these signature pedagogies differentiates the Ed.D. from the Ph.D.
The emphasis here is not the individual development of talent in a one-to-one relationship, but the development of shared purpose across a community of scholars. This community welcomes multiple perspectives, provides opportunities for risk-taking, and creates a social network (Walker, Golde, Jones, Bueschel, & Hutchings, 2008). They share the common idea of accompaniment; students and faculty accompanying each other along the doctoral journey. Professors do not leave students to sink or swim; neither do they do the work for them. Rather, they are there for students in a way that transforms both student and teacher.

Case Studies

The following cases from California State Universities at Fresno, Long Beach, and San Diego describe how they have integrated professional practice through the use of signature pedagogies. The signature pedagogy is the central and shared program concept that appears in the center of the circle in Figure 1. The practices of the individual campuses and the concept of cohort as a learning community appear in the outer ring of circle. The specific signature pedagogies become one of the means by which each program distinguishes itself.

Fresno Case Study: Embedded Field Work

California State University Fresno (Fresno State) is located in the Central San Joaquin Valley. The area is agrarian in nature and experiences high poverty. Fresno is home for many second language learners, including a large Hmong population. Challenges in the Central Valley include a decreasing number of students pursuing post-secondary education.

![Figure 1. Signature Pedagogy in Three CSU Doctoral Programs.](image-url)
Program Highlights
The Doctoral Program in Educational Leadership at Fresno State (DPELFS) aspires to develop education leaders who will:

1. Play a key leadership role in the execution of concrete educational reform focused on instructional practices and policies, curriculum, school-community relations, and home and school learning environments;
2. Create adequate information bases, evaluate educational programs, analyze complex educational problems, identify solutions, advise teachers and other educators, monitor the impact of solutions adopted, develop cooperative teams of practitioners and researchers in schools, and develop research capabilities necessary for the implementation of educational policy and practices;
3. Use the current literature related to instructional leadership, school administration and reform, the social and cultural context of schooling, the role of home languages and culture in the academic development of children, and research methodologies required to investigate and understand school effectiveness; and,
4. Design and execute studies of school practice and theory that will result in enhanced educational practice at school sites.

Fresno Signature Pedagogy: Embedded Fieldwork
A majority of courses now contain an assignment called embedded fieldwork in which students work collaboratively on a project directly related to the course-specific curriculum in a school district, community college, university or other education-related site. These projects fit the service-learning model and provide direct benefit to the students’ clients. Two courses with embedded fieldwork projects are described below.

Educational Reform Course
Students worked in collaborative groups of two and three and consulted with a total of 13 school districts, community colleges, and university entities. Clients identified change initiatives at their sites, and students gathered and analyzed data through surveys, interviews, and observations. They conducted a review of the literature in the specific area of the reform and synthesized salient points. Next, they formulated their findings, conclusions, and recommendations. Clients were invited to a poster session, where each client was presented with the results of the collaborative work. In addition, a report including data, analysis, related literature, findings, conclusions, and recommendations was given to each client. Clients were asked to evaluate the product they received and each provided an assessment of the work done.

Conceptual Curriculum Perspectives for Educational Leadership
Two major projects were selected as the embedded fieldwork component for this course. One project was the curriculum alignment for a nearby school district that had been identified as a District Assistance and Inter-
vention Team district (DAIT: PreK–12 student collaborative teams), and the second project was the curriculum alignment for Fresno State’s Liberal Studies program (post-secondary collaborative teams.) Seventh, eighth and ninth grade English Language Arts and Math were the subjects aligned using pacing guides, benchmark exams, state standards for each content area, and the results of the California Standards Test (CST) for each subject area and grade level. Similarly, the Liberal Studies focused on course syllabi, California Teaching Standards, and the California Subject Examinations for Teachers (CSET) exam.

Elaborate matrices, review guides, and backward mapping tools were developed and used, as well as actual test scores by subject matter, grade level and other course materials. Post-secondary students worked with both the course instructor and the Liberal Studies Director while the PreK–12 students worked with the instructor, a liaison from the Fresno County Office of Education, and the site principal. The results from each project were summarized in a report that was given to each client, and a formal presentation of the findings was held with clients and other university and school officials invited to hear the presentation. Again, clients were asked to evaluate the end product they received. The clients have indicated they are using the reports and findings to realign their pacing guides with their benchmark exams. The Liberal Studies Committee of the Academic Senate is reviewing the report to make official recommendations related to the findings of the class.

**Benefits of Embedded Fieldwork**

Through the embedded fieldwork assignments students were provided with laboratories in which to practice course content. Students were able to perform actual tasks in collaboration with other students that they will be expected to perform in leadership positions. Embedded fieldwork allows students to practice collaboration, and offers them the opportunity to take risks they would not take in their own professional settings.

**Assessment**

In addition to the regular assessment of student performance during class, an assessment was provided by the clients about the benefits of the embedded fieldwork to their organization. The clients were extremely complimentary about the work of the collaborative groups. As a result of these assessments, an assessment instrument has been developed so that the meeting of the objectives of embedded fieldwork can be compared and contrasted program-wide and included as a component in both the student outcomes assessment and in the five-year program evaluation process.

**Long Beach Case Study: The Professional Seminar**

California State University, Long Beach is located in one of Southern California’s most culturally diverse sections of Los Angeles County. The students and faculty in the doctoral program reflect the city’s diversity.
Long Beach Signature Pedagogy: Professional Seminar

The Professional Seminar introduces and accompanies the cohort along the academic path by: (1) increasing their knowledge about scholarly, practical and professional research traditions and contemporary issues in educational leadership; (2) developing doctoral study skills and strategies such as appropriate use of APA style, use of peer study groups, and research skills; and (3) providing collegial relationships with faculty and peers.

The Professional Seminar is designed to help students explore their future roles as researchers, practitioners, and community agents of change. The course inducts the student into the field of educational leadership as an orientation to doctoral education and culture. Two professors are assigned as leaders: one with a background in higher education and the other in PreK–12. They journey alongside the cohort during two years of coursework accompanying them towards the threshold of candidacy. The intent of the course is to bring both specializations together. This arrangement allows leaders from two different sets of educational institutions to enter into dialogue and learn from one another on issues ranging from differences in organizational structure to academic accountability. It is an arrangement that sews together the diversity of structures and policies into one seamless, P16 garment.

The Professional Seminar addresses the pedagogy of formation, which attempts to tap into the meaning of leadership, the transformative process involved in pursuing a doctoral degree in educational leadership. The seminar creates a secure space to explore questions about the self that form the heart of the educational leader: **What does leadership mean? Do I consider myself a leader? How does my personal life inform my professional life? Am I open to change? What moral and ethical responsibility do I have to the discipline of education, my educational community, and my ethnic group? How will I change as a result of earning a doctorate?**

Students reflect on these questions through activities in the professional seminar and connect their experiences in core and specialization classes as well as their work as professionals. They practice the kind of self-reflection that Schon (1983) described as an attempt to discover and be open to the limitations of expertise. The seminar allows students to examine their pre-constructed world-view, question beliefs and misconceptions, and develop alternative conceptions.

**Benefits of the Professional Seminar**

The Professional Seminar emphasized critical reflection on the nature of educational leadership. The seminar’s benefits to students and the program included: (1) an introduction to the field of educational leadership; (2) skill development for successful completion of the doctorate; (3) peer and professional mentoring groups to support students throughout the program; (4) the opportunity to read, think, discuss, and write about educational leadership issues in a thoughtful manner; (5) accumulation of knowledge
throughout the doctoral process (e.g., course work, qualifying paper, dissertation process) in order to successfully navigate and complete the program; (6) participation in collegial relationships with faculty; and (7) identification of scholarly interests and goal setting to further develop those interests. Ultimately, the seminar becomes the student’s space for incrementally creating a dissertation under the close supervision of seminar instructors.

Assessment
Schulman (2007) described assessment as a dancer who never loses the front of a mirror. The dancer trains by critiquing practice and using the mirror continuously, not just in episodes before a major routine. In assessing performance, the mirror allows both the student and the dance master to access the same information making it far easier to examine agreed upon areas of improvement. Similarly, the role of the instructor in the seminar is to act like a dance master to prepare students for the dissertation and beyond.

Assessment also includes student evaluations of courses and instructors, annual focus groups and student surveys. Students debrief their educational experiences and ascertain information concerning overall doctoral experience. Questions have centered on course scheduling, professor availability, and access to resources. An advisory board of faculty, students, and community partners reviews the data.

San Diego Case Study: Research and Writing Seminar Sequence
San Diego State University (SDSU) was founded as a normal school in 1897 and is located only minutes from the border with Mexico. It serves approximately 35,000 students in highly diverse urban, suburban and rural communities. SDSU has successfully developed ten joint Ph.D. and two joint Ed.D. programs with other institutions. Consequently, there is a well established doctoral culture.

Program Highlights
Two departments collaboratively lead the independent Ed.D. in Educational Leadership. Administration, Rehabilitation, and Post-Secondary Education (ARPE) heads the Community College Concentration; and Educational Leadership (EDL) heads the PreK–12 Concentration.

The program has eight common core leadership and research courses, a few of which are cooperatively taught by faculty from both concentrations. Both have a practicum/internship with a mentoring component. This program design addresses specific student learning outcomes in the following areas: organizational strategy and advocacy, resource management, professionalism, instructional leadership, financial and legal forces, communications, decision sciences, and collaboration Intentional support of research and writing, SDSU’s signature pedagogy, grew out of shared awareness and concern that failure to complete the
dissertation is the most common reason that doctoral candidates do not graduate, especially the full-time working professional. Collaboration and engagement are essential for the student, not just with the professor, but more importantly with other students, if students are to complete the program in the prescribed three years. Student thinking and engagement are visible, and there is accountability to one another as well as to the professor. Ultimately, this habitual, thoughtful, and accountable behavior leads to wisdom of professional practice (Shulman, 2007; Golde, 2007).

The Signature Pedagogy: Research and Writing Support Sequence (RWSS)

SDSU faculty envisioned a program that stimulated thinking about problems to be solved, actions to be taken, and research to be conducted. This conscious thinking about building inquiry and writing skills developmentally meant that courses, assignments, and feedback needed to be strategically designed and sequenced.

Central to this strategy is a three-four semester sequence, the Research and Writing Support Seminar (RWSS), a signature pedagogy that scaffolds the thinking and inquiry process and hopefully leads SDSU students to wisdom of practice. The seminar series provides content, but more importantly, faculty give students individual and group guidance in writing and inquiry methods in support of the work and content in other courses. Also, students’ are obligated to provide feedback and support to their peers through discussions, reading, and critiquing one another’s writing.

From the first semester, faculty expected students to think about and identify areas of interest and problems to be explored. Faculty from both concentrations provide overviews of inquiry methods to augment the inquiry courses, library orientation and use of resources, APA Style, Institutional Review Board requirements, and research ethics. The concentration faculty structured the RWSS somewhat differently to best meet the needs of their students.

Community College

The first course in the Community College sequence is history and development of the community college. A key assignment was a paper that required the student to select and address a research interest area. The student briefly stated the problem, followed with a mini review of literature, and proposed possibilities for action research.

During the second semester, the 15 students were divided into three sections for their first RWSS, each led by a faculty member with relevant research expertise. This relationship continues over the three-semester sequence. These faculty members frequently emerge as the dissertation advisor. However, the groups are somewhat fluid, allowing for evolving interests of the students and changes in advisors.
The three Community College seminars address specific outcomes. Seminar one, two, and three, require the writing of drafts of dissertation Chapter 1, Chapter 2, and Chapter 3 respectively. Students receive both group and individual feedback.

**PreK–12**

The students in the PreK–12 Concentration also began their four-semester RWSS without having completed any inquiry methods courses. Near the end of the first semester of the program, the concentration director asks each student to identify a preliminary research interest. Two Educational Leadership faculty led the RWSS in the first two of the four-semester series. Each had seven students which represented two-three research interest clusters.

Semester one of the RWSS focused on the dissertation as a process. Students were expected to prepare a paper describing the conceptualization and feasibility of the dissertation topic identified for research, and addressing the significance and potential impact of such a study, supporting the development of Chapter 1. The students were able to build on two specific assignments in PreK–12 concentration courses, one that required each student to conduct a review of three original research studies, and one that required students to develop an initial literature review of their area of research interest.

The second semester of the RWSS addressed the refinement of the draft literature review (Chapter 2). The instructors also linked writing a draft of Chapter 3 (methodology) to the qualitative inquiry methods course. The third semester supports the students as they prepare an initial draft of Chapters 1–3, the substance of the qualifying exam. The fourth seminar provides support in the lead-up to the dissertation proposal defense. Students finish the inquiry methods sequence and prepare their IRB application during the fourth seminar.

**Benefits of the Research and Writing Seminar Sequence**

The key benefits include: individualized support; early thinking and writing about the dissertation topic; guidance from faculty and peers on writing mechanics, style, and inquiry methods; expectation of high dissertation completion/graduation rates; connecting and integrating course content with inquiry and writing.

**Assessment**

Multiple means of assessment are being utilized to inform practice and to guide continuous improvement. They include: standard student evaluations of courses; annual individual student conference/staffing meetings with faculty group; faculty discussion, analysis, and adjustments of courses/program; executive committee and community partner committee discussions and recommendations; program evaluation and accreditation reviews.
Implications
Early experiences with signature pedagogies have unique implications for each of the three programs and create opportunities for continuous improvement. In addition these experiences may provide program development guidance to other campuses.

CSU, Fresno State
While embedded fieldwork has been cited by the students as a highlight of their courses, it was decided after the first year that it should not be included in every course each semester, unless the embedded fieldwork can be configured so the same clients are used and the activities can cover multiple courses. Embedded fieldwork is time intensive, particularly if students are going to provide a thorough and comprehensive report to the client. However, the implications of having embedded fieldwork in courses guarantee that students graduate with first-hand experience in providing instructional leadership and have the opportunity to see theory transformed into practice.

CSU, Long Beach
Course scheduling has been a continuous point of discussion. Students work full-time and take three courses per semester. Most have family commitments as well. It is inevitable that this amount of work and responsibility will create stress. Students and professors have searched for the ideal schedule.

The co-directors of the program have worked with students to respond to concerns and make appropriate adjustments in class times, events, and course sequences. The implications are that this program is responsive to student needs. While at first the amount of change seemed disconcerting to the faculty, as the program progressed, faculty continued to ask for input, and students indicated they appreciated being included in the design of their learning.

Communication between students and those directly responsible for the program emerges as highly important. As a result, the program is a dynamic entity that reflects the input from students, which ensures continuous improvement.

Another implication of this signature pedagogy is that faculty noticed that some students panicked if they had not identified a dissertation topic early on in the program, while faculty members were concerned more with broadening student experience. The Professional Seminar is notably one avenue that attempts to resolve this conflict through overall learning experiences with an emphasis on the importance of reading and thinking broadly. At the same time, the Professional Seminar helps students to identify an area of interest, which usually leads to a dissertation topic.

San Diego State University
As a result of on-going program assessment, students and faculty recommended starting the inquiry sequence a semester sooner concurrent with
the first Research and Writing Support Seminar. The timing better serves students in preparing the qualifying exam and the dissertation proposal. Additionally, the RWSS signature pedagogy allows the curriculum to be viewed and experienced as cohesive and integrated, as opposed to being experienced as discrete and unattached to research and practice.

In addition, faculty members have encouraged students from as early as the admission interviews to make suggestions for program adjustments. Initially, some faculty felt the changes were coming too quickly, but students have appreciated the faculty’s listening to and including them in the design of their learning. As a result, faculty have come to view student input as a sound practice for continuous improvement of the program.

**Conclusion**

The CSU Ed.D. is intended to develop transformational educational leaders. In California, the common structure of these doctoral programs offers the advantage of putting a large number of newly trained administrators in the field in a short amount of time. Many students enter the program highly motivated and well-positioned to undertake their program of study. At the same time, these programs have struggled initially with allowing adequate time for the presentation of course materials let alone time for embedded fieldwork and for students to thoughtfully develop dissertation topics. Stress levels have been high because of the demands of the program along with fulltime work and family responsibilities of students.

The development and inclusion of signature pedagogies, however, shows great promise to define a unique theme for each of the separate campuses and promises to provide an outstanding support base as well as laboratories of practice throughout the program. The three signature pedagogies reported here had different formats but served as a constant theme for each program. With feedback from students and faculty, signature pedagogies will continue to be refined to enhance program effectiveness.

Through participation in CSU CPED meetings, program directors and faculty will move discussions beyond procedural issues and focus on key outcomes. The intent is to develop moral, transformational educational leaders who will be able to innovate for the benefit of students (Golde, 2007). All program evaluation efforts must ask if the signature pedagogies are contributing to the graduates’ ability to provide moral and transformational leadership.

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