

Contextual Teaching and Learning Project Brief

Vol. 1 No. 2

Occupational Research Group
College of Education, The University of Georgia

Spring 2001

Connecting Work-based Learning and Teacher Education: A Contextual Teaching and Learning Approach to the Preparation of Teachers

Project Overview

The calls to reform teacher education and colleges of education have been loud and insistent. The quality of public education in the US is a top concern of the American public, as indicated by numerous polls, education reform legislation, and news articles from across the nation. Most agree that colleges of education may have to change the way in which they prepare teachers.

The federal government recently identified teacher education reform as a high priority for improving the quality of education and is funding states and universities to engage in comprehensive, systemic reform of teacher preparation. The focus of one of these teacher quality initiatives is the infusion of contextual teaching and learning into teacher preparation (preservice) and teacher development (inservice) programs in colleges of education and arts and sciences around the country. These projects focus directly on changing the teaching and learning process, in contrast to reforms based on structural or governance changes in schools.

The purpose of this brief is to describe the goals of the contextual teaching and learning project at the University of Georgia, and to highlight some of the professional development activities that have helped teacher educators (faculty in Colleges of Education and Arts and Sciences) to incorporate contextual teaching and learning in their own classes and in the curriculum of their teacher education students.

The Preservice Teacher Development Project in Contextual Teaching and Learning (CTL) at the University of Georgia is a joint project of the School of Teacher Education and the School of Leadership and Lifelong Learning in the College of Education in collaboration with local school systems, the Athens Area Chamber of Commerce, UGA's College of Arts and Science, and the School of Professional Studies.

The **overall goal** of the project is to develop and implement a preservice teacher education model of excellence that:

- Is based upon a theoretical framework of contextual teaching and learning that is literature-based and locally developed;
- Permits preservice teacher education students to complete a program of courses, seminars, and community/work experiences based upon contextual teaching and learning principles;
- Utilizes a broad range of contexts (school, community, workplaces) both to inform teaching and learning and to provide a place for it to occur;
- Allows preservice teacher education students to experience contextual teaching and learning and relevant assessment techniques in diverse settings;
- Provides opportunities for preservice teacher education students to reflect upon and to integrate their experiential learning into curriculum and pedagogy that reflect contextual principles and can be used in their own teaching;
- Provides opportunities for faculty to experience community/work settings.

As a result of participating in CTL activities, **preservice teacher education students** will:

- Comprehend that learning is an active process in which students employ their understandings in a variety of in-school and out-of-school contexts;
- Understand and implement strategies that reflect that students learn from one another through cooperation, discourse, teamwork, and self-reflection;
- Identify and illustrate how students learn differently when knowledge is viewed as relevant and related to the "real world";
- Recognize and value how community/work practices and settings can be used as contexts, sources of knowledge, and sites for learning/teaching, and incorporate these into curriculum materials and instructional practices;

- Develop and use relevant assessment techniques to evaluate student academic and community/work-based learning.

As a result of participating in the CTL model program, **University faculty** will:

- Understand and value the nature of the modern workplace and its role in and relationship to K-12 education and teacher preparation;
- Incorporate and model teaching strategies based upon and curriculum materials incorporating contextual teaching and learning principles;
- Develop and implement activities and tasks that involve preservice students in community/work practices and settings;
- Develop and use relevant assessment techniques to evaluate student academic and community/work-based learning.

University participants in this project are drawn both from teacher education and several arts and sciences departments. Because of the diversity in project faculty backgrounds, creating a common understanding about CTL concepts and how to integrate them into teaching and teacher preparation were essential prerequisites in developing a CTL program model in teacher education. A number of professional development activities for faculty were implemented including

- Dean's forum to discuss recent research and practices related to effective teaching;
- Review of articles, scholarly papers, research, theory, etc. related to effective teaching;
- Conversations, committees, collaboration across disciplines;
- Community and industry tours;
- Summer internships;
- Perks (travel, research and publication opportunities, course development grants, department support, etc.)

A general premise, of course, is that if we are to prepare preservice students to incorporate CTL concepts and practices into their curriculum and to model CTL in their own teaching, it is essential that university faculty experience first-hand the realities of today's workplaces and how learning in school connects to applications in work, government, and community settings throughout life. To do this, faculty have to leave their university classrooms and examine other settings where students use that which is or should be learned in school.

Two very significant strategies were developed early in the project to introduce faculty to the applications of learning in work and community settings outside of schools. These activities were a three-day tour of business and industry for all project faculty, and a more intensive one-week summer internship in an industry, government, or community setting for a smaller group of the project faculty. Each of these activities is described below.

Faculty Tour of Business and Industry

A review of the literature indicated that there were currently no existing models for developing work-based internships for university teacher educators. Therefore, we looked to the experiences of a local school district, which had organized a "Teachers in Industry" program for the past two years in partnership with the chamber of commerce, as a resource in designing our project activities. The UGA faculty tour of work sites was scheduled for three days in May

following the end of spring semester classes. The purpose of the tour was to help faculty (a) understand how to prepare future teachers to make classroom teaching and learning more relevant to the world of work; (b) learn about current, practical applications of content area disciplines in work places and what is expected of workers in modern technical and professional work settings; and (c) begin to identify experiences that could be designed for preservice students in teacher education programs to learn about work contexts and their applications to teaching/learning content knowledge in the schools. Tour activities included pre-visit group orientations each day before the tour, a half-day visit per site to a total of five sites over three days, post-visit group discussion and reflection at the end of the tour, and individual journal writing/reflection by each faculty participant daily. Twenty-five CTL project faculty participated in the tour the first year. The tour was expanded in the second year to over 40 faculty by having each project faculty member invite a colleague from his or her department to participate in the tour.

The group discussion sessions that occurred before each day's visits and at the end of the five visits provided an opportunity for faculty to meet and talk as a group. Each session encouraged faculty reflection and discussion about their expectations and/or experiences, the issues and themes emerging from the observations and discussions with workers at the businesses and industry sites, and the possible applications to teacher preparation.

Critical to the planning for the business and industry site visits was the CTL project partnership with the Athens Area Chamber of Commerce. After consulting with project staff about goals for the tour, the Chamber identified and contacted potential sites and worked closely with the CTL project staff to help organize tour activities. The businesses included in the first year tour were a Japanese high tech metal components manufacturing company, a major retail department store, an industry which manufactures rubber tires, a large regional bank, and a manufacturer of industrial overhead doors. Second year tour hosts included a regional hospital/medical center, a retail products distribution center, a pharmaceutical company, a manufacturer of electrical transformers, and a postsecondary technical college. At each industry site, the group received a welcome and overview presentation from company executives, followed by a tour of the plant or business facility, with opportunities to observe work processes and to speak with employees about their work. Following the tour, a question and answer

session was held with company employees and project faculty asked workers about their educational preparation, the use of academics on the job, the nature of their work tasks and skills, the work environment and culture, and even their perception of the relevance of their school experiences.

Individual journal writing provided an opportunity for faculty members to reflect on their experiences each day and also provided project leaders with feedback on the meaning and impact of activities for participants. Prior to the tour, faculty were asked to respond to five journal questions about their expectations for the tour and what applications they thought they would see for their teaching area. At the end of each day, participants answered journal questions about what they observed on each business/industry visit, how their on-site experience compared to their expectations, what application it had to their teaching area, how it affected their understanding of CTL, how they might design similar work site visits for their students, and how the tour could have been improved.

As an outcome of their CTL professional development, faculty were asked to develop instructional applications and products that incorporated what they learned on the tours. Faculty revised their course syllabi and created case studies, instructional modules, or learning strategies for preservice students utilizing CTL principles and experiences.

Local newspapers ran feature articles and pictures of the tour, with the heading *"UGA Education Professors Get Schooled: Instructors Receive Real-life Training in Conjunction with New Pilot Program."* Following the tour, the University held an appreciation luncheon for the business and industry hosts, the Chamber coordinator, and project faculty to share reactions and to provide feedback on the experience. In addition to the insights and expanded understanding of CTL by the faculty, the tour gave project participants a chance to spend three days of intensive time together focused on project activities. These informal interactions between education and arts and science faculty helped create cross-departmental understandings and interdisciplinary collaboration opportunities for faculty participants that have been important in developing the CTL program model.

Faculty Internships in Work Sites

Following the May tour of business and industry, six project faculty in the first year and four faculty in the second year from teacher education and arts and sciences were able to participate in a five-day intensive summer internship experience in one work setting of their choice. The internships were individually designed to provide faculty with first-hand experiences as workers and observers in a business or industry setting. The purpose was to allow faculty to gain knowledge and experience related to a specific business or industry that would assist them in designing student internships to enable preservice teacher education students to incorporate work life applications into instructional strategies.

Prior to initiating the activities, a set of Faculty Summer Internship guidelines were provided by the CTL project staff, and an internship coordinator met individually with each faculty member to explain expectations and assist with organizing their activities if necessary. The faculty interns identified individual goals for their experience related to their teaching field, contacted and arranged activities with a business or industry, interviewed workers and managers on-site, observed job processes (job shadowing), and participated in hands-on work tasks as appropriate. They were asked to keep a daily journal of their observations and insights, and to develop a portfolio that documented the internship experiences. Following the first year internships, a focus group discussion was conducted with participants to gather information about the value of their experience and its relation to their teaching at UGA.

Eight faculty members from the teacher education departments of language arts, mathematics, middle grades, occupational studies, science and two faculty members from the arts and sciences departments of genetics and mathematics, completed internships in industry. The community work sites chosen for these intern experiences included a municipal police department, a landscaping service, a construction company, a whale conservation alliance, a local newspaper, a high tech manufacturing company, a retail department store, a conference/performing arts center, and biotechnology labs.

Conclusions

In the first year many of the project faculty were dubious initially about the value of these activities and some participated only because they were part of the project expectations. Teacher educators struggled to understand what they could learn from visiting a manufacturing plant. However, following the tour many faculty members were able to describe how their academic field was reflected in the workplace. The interactions and group discussions both at the sites and afterward helped to clarify issues related to contextual teaching and learning and broadened faculty understanding about how to demonstrate this in their own teaching, as well as how to prepare student teachers to help their students connect learning to life in work and community settings. As one faculty participant expressed in a final journal entry "Teachers need to learn how to structure classes around outcomes that are real (e.g., political issues, inventions, businesses, volunteer work) so that there is a real stake for kids in learning." The second year of the tour saw a more willing and informed group of tour participants, and a willingness to include others in this experience. In addition, the evaluation and focus group input from tour and internship participants consistently stated that the experience had expanded their awareness of the context and applications of learning and impacted the way in which they approached their teaching.

Among the outcomes of these professional development activities for faculty were the following:

- Creation and use of case studies, instructional materials, and learning strategies integrating contextual teaching and learning principles
- Awareness of diverse community and work settings where knowledge is used, employment/community issues, and the relation of education to future work and community roles of students
- Connections with business and industry in the community useful for future collaboration and outreach efforts
- Opportunities to interact with faculty from different disciplines, departments, colleges at UGA, to learn from each other, and to connect with colleagues on common teaching and research interests
- Ideas about how to assist preservice students to use diverse contexts and to create connections that reach all students in the public schools.

These outcomes are illustrated by several quotes from journals of UGA faculty members who participated in the work site tours.

"I could see how some of the problem solving opportunities that engage local business and industry could serve as a stimulus for helping prospective teachers develop knowledge needed to participate in curricular activities such as Science Fairs, Toyota Tapestry, Invention Connection. These are all programs designed to engage students and businesses as teams in real-world problem solving experiences."

"It is refreshing to observe and think about area industries, jobs, and work situations which will be filled by our students' students. I think the information from the trips (tour) will help me bring more reality to my courses when I stress critical information literacy skills. I think I shall be able to create better scenarios for analysis of what information literacy skills are needed, where, and when."

"The 'problem-solving' 'critical thinking' thing seems key. They (employers) are saying they want employees willing and able to think. In schools, we actually often discourage initiative and thought, saying 'follow directions' and 'use the methods we teach you' and by giving very little opportunity for kids to grapple with real problems with real effects."

"The businesses are dealing with many of the social issues teachers deal with in school. The problem of employees who are unprepared and who cannot routinely fulfill their obligations to the employer. I knew interpersonal skills would be important but was surprised to find them to be central issues for employees. In many ways the employers face similar problems as we do with students - the big battle is getting them to want to learn."

"I thought a great deal about how students could enter these workplaces without a college education. I would use the information I gained today to encourage prospective teachers to think about the work environments that their students are likely to experience in the future and organize their instruction to target non-college bound students in meaningful ways."

In contrast to teacher-in-industry programs in the K-12 schools, teacher educator work place experiences potentially impact two groups beyond the educators themselves: student teachers and all the students in K-14 schools where UGA students will one day teach. For this reason it is important that faculty in the College of Education who prepare future teachers make teaching and learning more relevant to work and other real life contexts so that preservice students will learn to do likewise in their own classrooms. Industry tours and internships for teacher educators can contribute to this goal.

Authors:

Dorothy J. Harnish & Richard L. Lynch,
Occupational Research Group, School of
Leadership and Lifelong Learning, College of Education,
UGA.

Contextual Teaching and Learning Project Briefs are prepared by the Occupational Research Group at the University of Georgia to disseminate work resulting from the Preservice Teacher Development Project in Contextual Teaching & Learning (CTL). The goal of the project is to integrate CTL concepts and strategies into preservice teacher education courses.

The CTL project at UGA is funded under a joint initiative of the National School to Work Office and the Office of Vocational and Adult Education, U.S. Department of Education, 1998 - 2001; Project Co-Directors are Richard L. Lynch and Michael Padilla; Project Manager is Dorothy Harnish.

Project Web Site:

<http://www.coe.uga.edu/ctl>

|