Introduction to Contextual Teaching and Learning

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by

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The purpose of this fastback is to give teachers and teacher educators an opportunity to see how contextual teaching and learning (CTL) can change classrooms and teacher education programs. CTL in the classroom is introduced through the fictional Ms. Walters, a veteran classroom teacher. I describe how she implements CTL strategies in her classroom and examine the theories that support those instructional practices. The fictional environment of Ms. Walters is meant to represent real schools, real teachers, and real learners in this examination of contextual teaching and learning, which is a very real concept and one that can transform the process of schooling.

I also describe a fictional case study to illustrate a teacher education program. The case study shows how the implementation of CTL can result in teacher education reform in a state university. While this illustration uses a fairly large institution, its features are readily transferable to smaller institutions.

Although fictionalized, the case study is based on Best Practices in Contextual Teaching and Learning (2000). Researchers at Ohio State University studied four
teacher education programs that had been nominated by their peers as sites where contextual teaching and learning strategies were proving successful. The case study is designed to encourage teachers and teacher educators to improve their own instructional practices and to work for education reform in their institutions.

Finally, I summarize the implications for schools and teacher education programs. Understanding what needs to be done and how to go about it are keys to successful change.

This fastback is drawn from my book, Contextual Teaching and Learning: A Primer for Effective Instruction (Phi Delta Kappa Educational Foundation, 2002).

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What Is Contextual Teaching and Learning?

Contextual teaching and learning (CTL) is a concept that helps teachers relate subject matter to real-world situations. CTL motivates learners to take charge of their own learning and to make connections between knowledge and its applications to the various contexts of their lives: as family members, as citizens, and as workers. It provides a conceptual framework for unifying a constellation of education theories and practices and represents one approach to improving teacher education.

CTL rests on the following assumptions:

- Teaching and learning are interactional processes; Individual learners must decide to learn and to engage in the attentional, intellectual, and emotional processes needed to do so;
- Teaching isn't happening if learning is not occurring; and
- Learning is a developmental process that takes place across the life span.

Contextual teaching and learning includes six interrelated teaching and learning strategies that can be
better understood under the headings of “Who,” “Where,” and “How.”

Who are the learners? A primary purpose of CTL is to help students become self-regulated learners capable of high achievement. Beyond this primary goal, there is the recognition that students possess unique skills, interests, and cultural backgrounds. This diversity must be addressed in the CTL classrooms if students are to feel valued and to learn respect for others.

Where does learning take place? The contextual aspect of CTL embraces the proposition that learning should take place in many sites, or multiple contexts, not just in classrooms. Museums, parks, government offices, and health-care facilities are just a few of the places where learning can occur in the community.

How does learning take place? Connected to learning in multiple contexts is the first of three teaching strategies: problem-based learning, which recognizes that students learn from real-world problems. Two other teaching strategies, interdependent learning groups and authentic assessment, contribute to the development of self-regulated learners.

Self-Regulated Learning

Ms. Walters wants to teach her students to take responsibility for their own learning. She knows that, as adults, the students will be expected to acquire knowledge and skills on their own. Ms. Walters uses what she learned about the concept of self-regulation during her teacher preparation. Self-regulated learners
appear to have both academic skills and skills in self-control that help them to learn more easily. They have the skill and the will to know, according to McCombs and Marzano (1990). Three factors influence skill and will: knowledge, motivation, and self-discipline (Woolfolk 1998). Self-regulated learners need knowledge about themselves, the subject, the task at hand, learning strategies, and the contexts in which they will apply their learning. Self-regulated learners are similar to “expert” learners who know how they learn best—that is, their preferred learning styles, what is hard or easy for them to learn, and how to use their strengths to learn. They generally understand that they must approach different learning tasks in different ways. They know a range of specific learning tactics, from networking and mapping to self-questioning. And they understand how to match the most effective learning tactic to the task. Self-regulated learners think about the contexts in which they will apply their knowledge now and in the future, connecting their present learning to future activities.

Self-regulated learners also are motivated to learn. School assignments are interesting to them because they value learning. They know why they are studying and feel in control of their actions and choices. Self-regulated learners are disciplined. They know how to avoid or deal with distractions.

Not all of Ms. Walters' students are self-regulated learners, but she knows that she can encourage students to move in that direction. She can teach her students specific learning tactics, such as notetaking, networking,
mapping, self-questioning, using imagery, hypothesizing, identifying reasons for actions, and analyzing similarities and differences. She can teach her students how to compare their own performance to expert models.

Ms. Walters also improves her students' levels of motivation and their self-discipline by using instructional techniques, such as:

- Tying instruction to students' backgrounds and experiences.
- Encouraging student goal-setting.
- Providing opportunities for problem solving, decision making, and cooperative learning.
- Giving options in assignments.
- Teaching study skills.
- Grading student progress.
- Allowing students to progress at their own rate.
- Developing leadership opportunities for all students.
- Teaching students to monitor and evaluate their own progress and to correct their learning strategies as needed (Woolfolk 1998).

The students in Ms. Walters' room regularly set their own learning goals and then assess their progress in relation to their goals. She teaches mini-lessons to the students on how to collect evidence of progress and what constitutes good evidence. At the end of every term, she and the students confer, and then the students lead the parent-teacher conferences. Students discuss their goals and their progress. Then, with input from both the teacher and their parents, they set goals for the next
term. They celebrate success and work on strategies for unmet goals.

Earlier in the year, Ms. Walters found that, while most students are doing very well and in many cases the goals they set exceed those she would have set for them, some students were not invested in goal setting. For example, Marsha did not follow through on anything unless an adult pushed her. Marsha set a goal of following through on her assignments, but there appeared to be little progress toward this goal — and little interest in improving.

Ms. Walters decided to hold a private conference with Marsha to see what Marsha needed in order to follow through with her goals. She told Marsha she would no longer take responsibility for Marsha’s goals but that she would be glad to take a hand in helping Marsha. Marsha decided that she needed help once a week to keep herself reminded about her goals. Ms. Walters scheduled a conference with Marsha for each week. At each conference, teacher and student would decide what was to be done before the next week’s meeting.

When Marsha slipped, the weekly conferences helped her to get back on track. At the end of the term, Ms. Walters and Marsha’s parents could see progress. For the next term, therefore, Ms. Walters and Marsha would meet once every week and a half. Lengthening the period between conferences would help Marsha learn to work without external motivation on a longer-term basis. Eventually, she would become a wholly self-regulated learner in this manner.
Teaching and Learning in Multiple Contexts

While preparing to become a teacher, Ms. Walters learned that contextual teaching and learning is based on the hypothesis that students tend to retain higher-level knowledge and skills longer when their learning experiences are framed by contexts that are as close to real life as possible. When Ms. Walters gives her students opportunities to learn in multiple contexts, the students provide evidence to support the instructional theories that suggest that learning is situated in particular physical and social contexts. Theories of situated cognition assume that knowledge is inseparable from the contexts and activities within which it develops (Borko and Putnam 1998). Ms. Walters believes that how and where the person learns a particular set of knowledge and skills are fundamental to what the student learns. She believes that students make sense of new information, given their internal mindsets, by relating it to their past social, cultural, and physical experiences.

Based on situated-cognition theories, Ms. Walters accepts the principle that learning occurs naturally in a variety of contexts, both inside and outside the school. She understands that before, during, and after the school day, as well as before and after the school year, students are continually learning. The contexts may be home, community, or workplace, or less tangible contexts such as cyberspace and the imagination.

Students in Ms. Walters' classroom were involved in a variety of learning experiences outside of the classroom. For example, some students went to a senior center and were involved in an oral history project,
learning about the kinds of jobs that were available 50 years ago and comparing them to the jobs they would likely get a few years down the road. They were discovering how technology changed people’s lives. In exchange for the information from the senior citizens, the students helped senior center patrons design web pages and learn how to use e-mail.

This project did far more than simply make social studies and career studies come to life. As students answered the senior citizens’ questions about the workings of technology, they reinforced their own computer literacy. They also improved their own computer skills as they helped seniors scan in family photos and create links to their children’s and grandchildren’s web pages. The students’ writing improved as they worked with seniors on the texts that went with the web pages. Being part of teaching the seniors and learning from them reinforced the lifelong learning aspect of being a self-regulated learner. Along with the academic learning associated with the project, Ms. Walters was pleased to note the friendships that had developed across generational lines through this project. She thought students developed a positive view of aging through working on this project.

**Problem-Based Learning**

Ms. Walters uses problem-based learning to engage her students. She feels specific “touchstone” teaching and learning events need to be present in problem-based learning. Touchstone events include:
Engagement. Learners prepare to be self-directed, collaborative problem-solvers and encounter a situation that invites them to define one or more problems and to propose hunches, actions, and so forth.

Inquiry and Investigation. Learners explore a variety of ways of explaining events and their implications; they gather and share information.

Performance. Learners present their findings.

Debriefing. Learners examine costs and benefits of the solutions generated and reflect on the effectiveness of their problem-solving approach.

Ms. Walters employs instructional techniques that raise questions, issues, and challenges, or present difficulties that are in need of a solution. Activities are organized around solving problems in context in order to increase students' learning of subject matter. Generating solutions to problems is complex, requiring students to:

- Use critical thinking skills and a systematic approach to inquiry.
- Draw on multiple content areas.
- Address a series of questions of different types.
- Acquire new skills and knowledge.
- Apply, analyze, synthesize, transfer, and evaluate old skills and knowledge in new ways.

Interdependent Learning Groups

Ms. Walters divides students into work groups on a regular basis. She feels that learning is a social process that can be enhanced when learners have opportunities to interact about instructional activities. The topic of col-
laboration in learning can be traced to the early 1900s, when John Dewey criticized the use of competition in education and proposed that educators structure schools as democratic learning communities.

Ms. Walters’ students interact face-to-face, rather than across the classroom. Group members seem to need each other for support, explanations, and guidance. But even though group members work together, she holds them individually accountable for learning. She teaches the students collaborative skills — giving and receiving feedback, reaching consensus, and involving others — and the students practice collaboration before starting a new learning task. She also teaches students how to monitor group processes and relationships to make sure their group is working effectively.

Ms. Walters believes in learning environments that encourage social interactions and respect diverse ideas because such environments encourage flexible thinking and social competence (Lambert and McCombs 1998). In interactive and collaborative learning contexts, students have opportunities to adopt various perspectives and think reflectively in ways that foster social and moral development and self-esteem. Learning groups can help students feel safe about sharing their ideas and actively participating in the learning process.

**Authentic Assessment**

**Authentic assessment** can best be distinguished from traditional modes of education assessment by qualities
that foster formative development of teaching and learning processes. These qualities include:

- Using assessment tasks that are “real instances” of extended criterion performances of actual learning goals.
- Involving students in in-depth situations in which they develop and habitually solve problems and employ higher-order thinking.
- Featuring collaboration between students and teachers to determine meaning and produce knowledge (Newmann and Wehlage 1995).
- Including multiple opportunities for students to learn and practice the desired outcomes, along with multiple opportunities for feedback and reflection.
- Directing students toward producing discourse, products, and performances that they value beyond school success (Newmann and Wehlage 1995).
- Using rubrics and other criteria checklists at the core of authentic assessment as standards to improve learning and teaching.
- Drawing on multiple sources of information over time and in multiple contexts, employing reflective use of journals, reflective essay writing, portfolios, applied performance exhibits, work samples, peer mirroring, action research, case studies, checklists, and the like.
- Sampling the actual integration of knowledge, skills, and dispositions desired of teachers as they are used in multiple kinds of pedagogical practice contexts.
Ms. Walters is fortunate to work in a school that is committed to CTL, because the “report card” that goes home for every student is really a qualitative assessment. Each student fills out parts of his or her own report card, listing goals and accumulated evidence of achievement. She also adds her comments about this evidence. The report card is cumulative in that each term Ms. Walters and the students add new goals and comments. This helps parents to see their children’s progress throughout the year.

Along with the qualitative report card and the self-assessment that is part of the self-regulating learner procedures, there is the everyday assessment that takes place in Ms. Walters’ classroom. At least twice a week Ms. Walters records an anecdotal note on each student.

When Ms. Walters considers her class assessments, she sees that learning is occurring. She knows that by using CTL strategies, she creates self-regulated, life-long learners.
Integrating CTL into Teacher Education

A quality teacher is the key to student learning. The National Commission on Teaching and America’s Future (1996) believes that the single most important strategy for achieving America’s education goals is recruiting, preparing, and supporting excellent teachers in all of America’s schools. This influential report contends that a caring, competent, and qualified teacher for every child is the most important ingredient in education reform. Teacher education is under pressure to improve the preparation of the nation’s teachers.

Following is a case study designed to show how teacher education programs can improve the way they prepare prospective teachers. Like the description of Ms. Walters, this case is intended to illustrate CTL characteristics. It centers on a fictional teacher education program situated in a large Midwestern university. The institution is called Anystate University because it could be, literally, any state university that chooses to implement contextual teaching and learning principles and practices.
Legislated Education Reform

To understand the preservice teacher preparation program at Anystate University, it is first necessary to understand the state’s recently enacted Education Reform Act (ERA). Education reform by means of the ERA is a pioneering effort to create an equitable system of public education and to improve the performance of the state’s entire system of education. Knowing the key components of the ERA is a way to understand the effect this reform act has had on teacher education in the state. All of the state’s institutions of higher education are expected to provide support for the ERA through teaching, research, and service, as well as in the alignment of their curricula, instruction, and assessment practices. The ERA is at the center of many of the decisions being made by school and university faculties and administrations. Even preservice teacher education students are well aware of the ERA and its implications for them.

The ERA assumes that all students can learn at high levels. The act includes these basic elements:

- Educational goals describing what graduates are to know and be able to do.
- An assessment process to measure how well students are reaching the goals.
- An accountability system to give financial rewards to schools that improve student achievement and to intervene in schools that do not.
- School councils made up of parents and educators who make decisions about curricula, instruction,
and school management and create an environment for student achievement and school success.

- Professional development funding increases aimed at new ways to achieve success with students.
- Early childhood education programs to prepare at-risk children for school.
- Funding for a longer school day, week, and year to assist students who need more time to achieve academic success.
- A commitment to educational and administrative technology.
- Family Resource and Youth Services Centers to assist students and families in need by providing resources and referrals to service agencies in the community.
- Governance structure reforms to reduce political influences in the operation of school districts and to improve leadership at state and local levels.
- A funding system aimed at correcting the disparity between wealthier and poorer school districts.

Expectations of students. As noted, the law prescribed what high school graduates should know and be able to do to be successful in today's world. Each graduate should:

- Use basic communication and mathematics skills in finding, organizing, expressing, and responding to information and ideas.
- Apply core concepts and principles from science, arts and humanities, mathematics, practical living studies, social studies, and vocational studies.
• Become a self-sufficient individual who demonstrates independent learning, self-control, a healthy lifestyle, flexibility, and an appreciation for diversity.
• Become a responsible group member who demonstrates consistent, responsive, and caring behavior; interpersonal skills; respect for the rights and responsibilities of others’ worldviews; and an open mind to other perspectives.
• Think and solve problems, including the ability to think critically and creatively, develop ideas and concepts, and make rational decisions.
• Connect and integrate experiences and new knowledge throughout the curriculum, question and interpret ideas from diverse perspectives, and apply concepts to real-life situations in the community and at work.

Expectations of Teachers and Teacher Educators. All teachers are expected to design and implement instruction and to assess learning in ways that develop students’ abilities to accomplish the expectations listed above. Teacher educators at Anystate University also must meet the requirements of the Education Reform Act. The act clearly links the preparation of teachers with K-12 education success and continuing professional development.

Standards for Teacher Education. The ERA identified specific standards that must be met by teacher education institutions. In fact, prospective teachers must develop portfolios that present evidence that they can meet the Beginning Teacher Standards before receiving
their teaching licenses. All teacher education standards are aimed at developing students’ abilities to communicate effectively, apply core instructional concepts, be self-sufficient as individuals, be responsible team members, solve problems, and integrate knowledge. The new teacher standards require teachers to:

- Design instruction for students from diverse cultures.
- Create and maintain a supportive learning climate.
- Use problem-based learning strategies and foster higher-order thinking skills.
- Assess student progress using multiple sources of evidence and communicate learning results.
- Reflect on and evaluate their own teaching and learning.
- Collaborate with colleagues, parents, and others and help students work together in teams.
- Engage in professional development and independent learning.
- Demonstrate content knowledge.
- Demonstrate skills to help students apply subject matter to real-life situations in the community and in the workplace.

Teacher education institutions must revise their course syllabi, assignments, and field experiences to show how they are helping beginning teachers meet these standards. The Education Reform Act was designed to change all levels of education. Thus Anystate University found itself restructuring its teacher education program to meet the challenge of the ERA.
Anystate University

Anystate University (AU) is the largest public institution in the state and has the state's second-largest teacher preparation program. The university sees itself as a dynamic, research-centered community, stimulated by cultural and intellectual diversity and built upon a foundation of integrity, creativity, and openness to the exploration of new ideas. Anystate University describes itself as committed to excellence in the creation, dissemination, and application of knowledge and draws on the rich array of resources from the surrounding community to enhance its educational endeavors. Metropolis, the million-plus urban center in which the university is located, is the state capital. Anystate students have many opportunities for internships at various levels of government and in business, education, entertainment, and the arts in Metropolis.

Teacher Education at Anystate University. The AU college of education is dedicated to preparing professionals who both know important principles of teaching and research and are able to respond creatively to the changing needs of an increasingly complex society. The college offers initial licensure preparation for teachers at the graduate level only. Therefore students graduate with a master of arts in education.

The college prides itself on the individual attention faculty members give to students. It has approximately 120 full-time faculty members who have extensive practical and research experience in both national and international education settings. Accredited by the
National Council for the Accreditation of Teacher Education (NCATE), the college offers advanced degrees in elementary and secondary administration and supervision, higher education administration, counseling, educational technology leadership, elementary education, business education, secondary education, and special education. AU is proud of its minority student population, roughly 25%, including African Americans and Hispanics who are preparing to become teachers.

Currently the college is organized into eight departments and one center. The eight departments include administration and higher education; early and middle childhood education; counselor education; foundations of education; health promotion, physical education, and sport studies; occupational training and development; secondary education; and special education.

Dean Betty Smith started the Center for Innovative Teacher Education, funded by the state general assembly at approximately $350,000 per year, as a “center of excellence” about eight years ago. Its basic goals are to 1) work with schools, 2) support innovative teacher education programs, 3) conduct research on the collaborative relationships between universities and public schools, and 4) recruit nontraditional individuals to the teaching profession. To accomplish these goals, the center sponsors and coordinates collaborative ventures and projects to improve teaching. For example, it supports the Magellan Partnership, an innovative, school-based teacher education program leading to licensure in both secondary education and special education.
Restructuring the College of Education. Dean Smith, a strong advocate for the improvement of teacher education, was determined to take advantage of the opportunity presented by the Education Reform Act. Just a year before restructuring began, the dean and two of her teacher education faculty had attended a design conference on contextual teaching and learning. At that conference CTL was being touted as a concept of teaching and learning with several important characteristics that, when integrated and implemented as a whole, can become a driving force in the reform of teacher education. Because the dean had always been a proponent of problem-based learning, self-regulated learning, and authentic assessment, she was drawn to this new concept. Other characteristics of CTL include: teaching and learning in multiple contexts or settings, fostering learning in groups, and building on students' diverse life contexts. Dean Smith recognized the compatibility between the academic expectations of ERA and the characteristics of CTL. She decided to present the ideas embedded in CTL to her teacher education faculty to get their reaction.

Dean Smith convened 40 representative faculty members from teacher education and from the English, math, biology, and history departments and selected students for a series of weekly forums. She invited the arts and sciences representatives because of their important role in preparing future teachers in the content areas. She also hoped to increase their involvement in teacher education by involving them early in the restructuring
decisions. The purpose of the forums was to build consensus around a new mission statement and a set of goals and objectives. The dean distributed copies of papers on CTL, and the faculty spent several weeks discussing them. By the time the semester ended, the faculty had decided to use CTL as a foundation for restructuring the teacher education program. The faculty reviewed their existing mission statement and revised it to read:

The College of Education is committed to providing the highest quality educational opportunities to its students. We develop innovative research and teacher education programs, contribute in diverse ways to local communities and the nation, and actively participate in the national and international community of scholarship. Our unique location in the state’s capital, a vibrant multicultural center, offers a broad range of resources and opportunities to our diverse students and faculty.

After completing mission and belief statements, the faculty generated a set of statements about what teachers should know and be able to do upon graduation from the AU teacher education program. Following are the statements on which they agreed:

The College of Education strives to prepare teachers who demonstrate these skills:

- Use advanced communication and mathematics skills in finding, organizing, expressing, and responding to information and ideas.
- Apply core concepts and principles from science, arts and humanities, mathematics, and the social sciences.
- Demonstrate independent learning, self-control, healthy lifestyles, flexibility, and an appreciation for diversity.
- Design instruction for students from diverse cultures.
- Create and maintain learning climates to foster student achievement.
- Use problem-based learning strategies and foster higher-order thinking skills.
- Assess student progress using multiple sources of evidence.
- Reflect on and evaluate their own teaching and learning.
- Collaborate with colleagues, parents, and others and help students work together in teams.
- Engage in professional development and independent learning.
- Demonstrate content knowledge.
- Demonstrate skill in using the community as a laboratory for learning and to help students apply subject matter to real-life situations.

The teacher education faculty, along with the arts and sciences faculty, were eager to redesign an innovative teacher education program to implement the new mission and student standards. Their interest stemmed from their desire to improve their program and was stimulated by the dean’s willingness to provide incentives for change. For example, faculty had the option of a reduced load for one year. Two of their four college classes would be covered for two semesters, giving them the time to restructure their program.
Launching the Magellan High School Project

It is a good idea to reiterate the sequence of events. The state general assembly passed the Education Reform Act in 1993. The restructuring of the College of Education began in 1995. Significant changes have occurred during the last five years, including planning for the Magellan High School Project, a partnership between the College of Education and Magellan High School, a Metropolis city school. One AU faculty member, Dr. Fred Roosevelt, coordinates the program. His full-time assignment revolves around the cohort of AU students he works with at Magellan. Twenty-five interns from English, social studies, math, science, music, and business education are placed at Magellan for a year of internship. Faculty and graduate teaching assistants from these subject areas are involved at Magellan in teaching site-based courses and supervising interns. The remainder of this chapter will describe how this model program has evolved.

The secondary education faculty members who had been conscientious attendees at all of the restructuring meetings offered to experiment with the new standards first. This group included representatives from licensure programs in math, science, social studies, and English education. They decided to explore a partnership with Magellan High School. Their goal was to develop a learning environment that maximizes the potential for achievement and fosters teaming among students, parents, and staff at the high school and AU. They believed
a positive learning environment was necessary to develop a standards-based teacher education program. Magellan High School already was an internship site for prospective social studies teachers, but a real partnership had not been established. Heretofore, social studies interns completed their field experiences at Magellan, but university-based faculty actually had little involvement with the school or its staff.

The dean and the interested secondary education faculty met with the Metropolis school superintendent, the Magellan principal, and teacher union representatives. The college representatives explained the new mission and goals of the College of Education and indicated that they would like to work, in partnership with the educators at Magellan, both to prepare prospective teachers to teach in urban schools and to help Magellan improve student achievement.

The principal, the superintendent, and the union representatives all were enthusiastic about establishing a partnership. However, they made it clear that the partnership needed to serve the needs of Magellan students, as well as AU’s intern teachers. To test the waters, the group agreed to form an executive board for what they now termed the Magellan Partnership and to begin planning how they could work together effectively. The members of the executive board used funds from a grant to visit other schools that were engaging in innovation, to meet on Saturdays, and to hire substitute teachers to cover classes so that they could plan during the school day.

The planning phase lasted almost six months before implementation of the program began. This gave both
university-based and school-based faculty time to get to know each other, and it allowed university-based faculty time to visit the schools often and to revise their syllabi and develop learning activities to use in their classes. Early in the planning year, Nancy Dunn, a special education coordinator at Magellan High School and a member of the union’s leadership council, agreed to become associate director of the Magellan Partnership on condition that someone from the university would serve as director. Dr. Fred Roosevelt, a professor in social studies education and an active participant in all of the college restructuring meetings, agreed to serve as the director.

Partnership Contexts. Magellan High School reflects an increasingly diverse student population: 72% African American, 21% Hispanic, 4% Asian, and 3% “other.” The school has had six principals during the last decade, and student achievement test scores have declined consistently over that period. Magellan’s new principal, John Cortez, described Magellan as a high school that was trying to engage students in actively preparing for life and work on graduation. Magellan’s primary goals were: improved student attendance; stronger connections among teachers, students, and families; and improved student achievement.

The executive board of the Magellan Partnership has worked well together. It has 10 members: four university-based faculty, four school-based faculty, the principal, and a school counselor. The board meets once a month to provide ongoing direction for the partnership. The
partnership has existed long enough to establish a successful track record as an exemplary teacher education program. An explanation of the selection processes they use to recruit interns, the curriculum and instructional strategies they use, and the key roles of the interns and university and school-based faculty will demonstrate why.

Choosing the Interns. Anystate University has high standards for admission to its programs. Like many institutions, AU requires a satisfactory Graduate Record Examination (GRE) score and a 2.7 or higher grade point average. At AU, however, the selection criteria also address factors related to the context in which the interns will teach. When individuals choose to apply to the Magellan Partnership, they have to submit three letters of recommendation that speak to their academic potential and personal qualities that would qualify them for teaching. In addition, they submit a 500-word personal statement about their background, reasons for their choice of teaching as a career, official transcripts, and evidence of satisfactory coursework in the subject areas for which they desire licensure. Applicants also must have attained a 55th percentile minimum on the Miller’s Analogy Test or the Graduate Record Exam and must undergo an intensive interview. It is the interview process that truly reflects the desire of the Anystate University faculty to select students who can become effective teachers.

University faculty use the “Urban Teacher Selection Interview” developed by Martin Haberman as an inter-
viewing tool to select students into the Magellan Partnership. Haberman (1995) articulates several ideas, based on the premise that selection is critical to improving schooling, particularly in low-income, urban schools. He proposes that:

- Programs that prepare teachers for children of poverty should train only individuals who are adults.
- These adults should have demonstrated their ability to establish rapport with low-income children of diverse ethnic backgrounds.
- They should be admitted as candidates based on valid interviews that reliably predict their success with children in poverty.
- Practicing urban teachers who are recognized as effective should be involved in selecting candidates.

The interview tool is a series of questions designed to select individuals who can function at a satisfactory level while learning to teach on the job. In many ways, the university interns at Magellan are learning on the job with expert tutelage, similar to an apprenticeship.

**Intern Characteristics and Responsibilities.** The interns, with an average age of 30, are quite mature. After earning their bachelor's degrees, they all worked in other occupations. One of the graduates, who is now teaching in a community close to Metropolis, summarized the advantages of delaying her teacher preparation: “I am glad I took four years to work after college. I really appreciate, enjoy, and savor learning now that I am older.”
University faculty believe in recruiting interns who are representative of the ethnic mix of urban students. Thus they have emphasized recruiting persons of color. The current cohort group is 30% African American and 10% Hispanic.

The interns can opt either to obtain dual licensure in a content area and special education or to certify only in special education. It was the context of Magellan that pushed AU to look at dual licensure. Schools, including Magellan, were only willing to “tiptoe into inclusion.” Special education and regular education teachers were not talking very much to each other. Therefore the university faculty decided they needed to start the conversations between teachers in their training.

Interns begin their coursework during the summer semester and complete a 42-semester-hour master’s degree at the end of the following summer. A typical semester load for the teacher interns includes spending four regular teaching days at Magellan and taking three graduate classes after school hours, from 4:00 to 6:30 on Tuesdays, Wednesdays, and Thursdays. These classes usually are taught at the school. Those who strive for dual certification complete internships and seminars in both special education and their chosen secondary field. The internship seminars are held in the school during the lunch period and immediately after school.

During their day at Magellan, interns teach one class period of literacy (using technology as a tool), plan one period, and observe or help teach in a content class or special education resource room. From the very beginning of their internship, they assist individual students
or small groups in classrooms. Because it is important for the interns to understand teachers' motivations (why they do what they do and what they think about as they teach and manage students), cooperating teachers are expected to debrief the interns regarding classroom decisions. Every day, during the fourth period, the interns come together to reflect on what they are doing and learning, to participate in seminars focused on relevant topics, and to seek advice from their university supervisors. The remainder of a typical day is spent in various activities, such as observing Magellan teachers to learn what works and what doesn't, tutoring using specific learning strategies, assisting in a homeroom, facilitating student advisory groups, observing peers and giving feedback, and planning lessons.

**Instructional Strategies**

Several innovative curricular and instructional strategies can be observed at Magellan. For example, on Tuesdays from 3:30 to 6:00, interns learn strategies for teaching reading and try out their newly acquired skills the next day by working with a small group of students in the alternative school that operates from 2:00 to 7:00. In another after-school course, the interns debrief their own videotapes of lessons, using cooperative learning as an instructional strategy. Working in pairs, they critique their own teaching, reflecting on what worked and what didn’t.

*Anchoring Learning to Students' Lives.* The interns try to motivate their students by showing connections between what the students are asked to learn and the stu-
dents’ daily lives. A recent seminar discussion revolved around two questions: How can we reach some of the students who seem distant and uninterested? How can we make connections between the subject matter we are teaching and the lives of the students? Interns were grappling with these questions and making suggestions to each other. One intern reported he had asked the students to read *The Diary of Latoya Hunter: My First Year in Junior High*, hoping that the students would identify with the main character and her problems. His comments generated a conversation among the interns about the benefits of selecting literature representative of contexts familiar to their students. This was not a professor-led discussion, but one in which interns, acting like experienced teachers, were trying to find solutions to the lack of student motivation.

**Teaming and Cooperative Learning.** Learning is a social process, and the influence of others can be a significant force in learning. All of the interns at Magellan, regardless of their major, meet together in a weekly seminar for 90 minutes. The purpose of the seminar is to help the interns recognize that working together enables them to create new products or to solve problems that they probably cannot solve alone.

The project in which the interns collaborate is called “Enabling School-Based Change.” It incorporates aspects of problem-based and cooperative learning. To begin, the interns divide into groups of four or five and choose what they want to tackle from a list of problem-based projects such as the ones below:
Revising the Magellan Student Handbook.
Revising the Magellan Teacher Handbook.
Compiling effective strategies to enhance student literacy skills.
Developing a curriculum to enhance student self-esteem.
Updating the Magellan high school web page.
Redesigning Magellan’s anger management curriculum.

To help students plan their projects carefully, the principal and one or more university faculty meet with the groups at the beginning of the project. Each group is responsible for these tasks: articulating, in writing, individual and group responsibilities for the project; working cooperatively inside the group and with the Magellan community members to successfully complete the project on time; developing an appropriate “product” on behalf of the Magellan group they are assisting; teaching a microteaching lesson related to the project to their peers in their seminar; and presenting the final products to the class and appropriate school audiences.

Learning in Multiple Contexts. Understanding that learning occurs in multiple contexts, Dr. Roosevelt emphasizes the importance of using the community as a learning environment in his work with the Magellan teachers and students and the AU interns. In the first year of the Magellan Project, Roosevelt engaged teachers at Magellan in “community mapping,” an idea that
originated at the National Building Museum outreach program (http://www.nbm.org/Education/Outreach.html). In the community mapping activity, students map their community to understand and appreciate what is around them. The Magellan students, following a mapping exercise developed by Roosevelt, went to Martin Luther King Park and conducted a scavenger hunt, trying to locate answers to questions that Roosevelt generated for the assignment. The students divided into groups and assumed various jobs: scout, mapmaker, photographer, collector, artist (doing crayon rubbings of the sides of buildings or other surfaces), and cataloguer of businesses and houses. They followed a designated route and stopped at cultural institutions, businesses, and government agencies to collect information and observe the work that employees in these settings perform. Then the students returned to the school with photographs, collected items, and data about the community. They used computers to construct a large map of the community and a narrative description. The remainder of the year, social studies teachers related their lessons to events, places, or institutions within the local community whenever possible. Science teachers returned to the park to study plants and trees, and English teachers took students to the local library to broaden students' knowledge of the resources available to them.

As part of their coursework, university interns also went on a “community walk” around the Magellan neighborhood. Curious interns participated in community mapping in which they divided the neighborhood
into quadrants, prepared a map, and collected artifacts from the neighborhood. The artifacts they collected reflected their content area. For example, interns preparing to become science teachers collected rock samples and plant and tree samples. Then they developed a lesson plan around their artifacts as an assignment in their methods course. They presented the lesson to their Magellan students in the subject matter classes in which they intern.

Magellan High School students also are required to complete 100 hours of community service prior to graduation. While many students have volunteered in local organizations and agencies, the new school-to-work plan calls for the curriculum to incorporate service learning. During the next academic year, a service organization and a new service-learning coordinator will train Magellan teachers and interns to incorporate service learning into the following year’s course of study. Dr. Roosevelt indicates that the plans include interns spending time in one community agency or organization to study what the agency or organization contributes to the neighborhood.

Assessment and Evaluation in the Magellan Project

Teachers and AU faculty members in the Magellan Partnership know the interns very well because of the intense interactions they have with them on a daily basis. Ongoing and multiple assessments of an intern’s progress include evaluation of products and projects, written work,
journals, logs, and portfolios. Performance assessments with a set of clear criteria also are conducted.

The assessment of the interns' progress as teachers is a yearlong process and occurs in multiple ways, including informally by project staff, formally by university supervisors, informally and formally by cooperating teachers and by peer observation. Although the interns begin their teaching with some trepidation in September, they quickly gain surprising levels of sophistication. By December, they are teaching a two-to-three week unit in content classes.

Supervising faculty use the Pathwise Observation System (PRAXIS III) and the Educational Reform Act's Beginning Teacher Standards as an organizing framework to guide the assessment and to provide feedback to the interns. Pathwise and the Beginning Teacher Standards complement each other. Pathwise is an observation system built on essential teaching skills. It is a performance assessment tool used for student teachers and first-year teachers that identifies those aspects of a teacher's responsibilities that have been shown, through empirical studies and theoretical research, to improve student learning. The system divides the complex activity of teaching into 22 components clustered into four domains of teaching responsibility:

Domain 1: Organizing content knowledge for student learning.
Domain 2: Creating an environment for student learning.
Domain 3: Teaching for student learning.
Domain 4: Teacher professionalism.
Interns learn about Pathwise and how to use the framework in their methods course, which they take in the summer prior to teaching at Magellan. An assignment in that course reads: "Using the four Pathwise domains, assess how well a teacher has planned and implemented instruction." This Pathwise framework and the Beginning Teacher Standards are used for informal feedback throughout the year.

**Formal Assessments.** University faculty conduct formal assessments in the content or special education classes in which the interns are paired with a cooperating teacher. A university faculty member observes an intern's teaching and then writes reactions under each of the four domains. Then they describe areas of excellence and suggestions for improvement.

The detail and care with which these observation assessments are written is quite different from the checklists or abbreviated assessments of student teachers that are found in many teacher education programs. The specificity of the comments helps the interns see exactly what they need to improve. These formal observations occur during both regular semesters and include several steps: planning, conferencing with the intern and the cooperating teacher, observing, and providing feedback. Then the supervisor, with input from the cooperating teacher, prepares two forms during the semester: a progress report and a final report. These evaluative reports are used to help interns focus on areas they need to improve and to assign grades in the internship seminar.
Peer Observation and Pathwise. The benefits of interns learning the Pathwise System is that they also can use it in their observation of and feedback of their peers. One intern who had conducted three peer observations using Pathwise observed that it helped her give suggestions to her peers but also made her look at her own teaching more closely. The Pathwise system also has facilitated "three-way discussions" among the interns, supervising faculty, and the Magellan cooperating teachers.

Portfolios. Portfolios are one of the most important ways in which interns are assessed. The college of education has developed its own website to instruct prospective teachers in the specifics of portfolio development. A portfolio serves multiple purposes. It is the basis for the intern's grade in the capstone seminar during the final summer semester, serves as a college exit requirement, and later is used as evidence the student has met the Beginning Teacher Standards when the student begins to interview for a teaching job. The very first course that interns take in graduate school includes several suggestions for items to include in the portfolio: journal entries, group projects, assessments of lessons taught, self-assessments, curriculum units, peer reviews, essays, and other work samples.

Using the Beginning Teacher Standards as the guide, the faculty developed an outline for all students to follow in developing their portfolios. First, the portfolios must include a letter for prospective readers, describing the preservice teacher's philosophy of education and beliefs
about teaching and learning. The letter also includes an assessment of their strengths and weaknesses; a statement of goals for continued growth; a self-assessment of the preservice teacher’s ability to work with other teachers, students, parents, and community members; and a summary of the preservice teacher’s understanding of the implications of ERA for that teacher’s curriculum specialty. The last section of the letter justifies how the evidence presented in the portfolio meets the Beginning Teacher Standards and state’s teacher education standards. In the second section of the portfolio, students are expected to relate the contents to each one of the Beginning Teacher Standards. Thus portfolios contain examples of actual lesson plans, samples of K-12 students’ work based on the lesson plan, and a reflective statement on how the AU student would change the plan next time. Prospective teachers demonstrate their personal growth through the inclusion of course assignments, projects, lesson plans, examples of high school student work, and videotapes of teaching and various interactions with teachers, parents, and community members. Also in the portfolio are journal reflections, summaries of internships at work sites, photographs or samples of student projects, and feedback from teachers. In addition, the portfolios contain evidence of students’ knowledge of theories of teaching, learning, and child development and evidence of the understandings required to meet the needs of diverse students. Interns revise and update their portfolios throughout their year at Magellan. They complete and present their portfolios
to their peers during a capstone seminar in the summer semester after the completion of their internship.

Distinct Features of Magellan

The breadth and depth that has developed in the Magellan Partnership during the last five years makes it unique. Its distinct features include:

- High-quality professional development for both preservice and inservice teachers.
- A teachers' school located on site for continued professional development.
- Teacher interns serving four full days a week as team members for a full year of clinical experience.
- Teacher interns having the opportunity for dual certification in secondary education and special education.
- University-based faculty collaborating with the school-based mentor teachers to improve student achievement.
- Simultaneous renewal of school and university professionals through regular interactions as members of a learning community team.
- Equity, diversity, and cultural competencies achieved by selecting graduate-level students who reflect the cultural and ethnic diversity of Metropolis and by preparing them for the diverse student bodies of urban areas with particular attention to inclusive practice.
- Enhanced knowledge base in teacher education and school reform through scholarly inquiry and
programs of research focusing on the interventions at Magellan.

Anystate University's teacher education program and its partnership with Magellan High School is still evolving. While faculty in both sites report being busier than they have ever been, they know they are improving student achievement at Magellan and also preparing teachers who will be well equipped to tackle the challenges of urban schools. They also know they have more work to do. Following the graduates of Magellan and AU to see how they perform as teachers will be the priority over the next five years.
Conclusion

Talking about teacher education as society’s missed opportunity, Michael Fullan (1993) suggests that the real problem is that there is not a sense of practical urgency or clarity of action to do something about teacher education. More recently, Fullan, Galluzzo, Morris, and Watson (1998) described the reform of teacher education as “stalled” and characterized the decade of 1985-95 as a series of false starts.

The National Commission on Teaching and America’s Future (1996) reports that to provide every student with a competent, caring, and qualified teacher, we must be prepared to reinvent teacher preparation. The report goes on to suggest organizing teacher education around standards for students and teachers and developing extended, graduate-level teacher preparation programs that provide yearlong internships in a professional development school.

Fullan and his colleagues (1998) maintain that we already know the primary components of reform:

- Building stronger knowledge base for teaching and teacher education.
- Attracting able, diverse, and committed students to the career of teaching.
- Redesigning teacher preparation programs so that the linkages to arts and sciences and to practice are strengthened.
- Reforming the working conditions in schools.
- Developing and monitoring external standards for programs, as well as for teacher candidates and teachers on the job.
- Doing rigorous and dynamic research focused on teaching, teacher education, and assessment and monitoring of performance.

The teacher education program at Anystate University reflects most of the components that Fullan and others advocate. For example, AU based its program on the contextual teaching and learning concepts that incorporate social cognition theories and use authentic assessment strategies. The AU faculty restructured as they responded to new teacher standards that, in this instance, were mandated and monitored by the state legislature. The education faculty also enlisted their colleagues in arts and sciences to collaborate with them and strengthened ties with the local schools. These connections gave intern teachers and professors a laboratory for learning and research. Local teachers gained much needed assistance in improving student achievement and more opportunities for professional development. By restructuring the teacher education program, AU also was able to attract capable, dedicated, and diverse students. An extensive research agenda was
developed to monitor the progress of teacher education students and to prepare practicing teachers to engage in action research.

CTL is a philosophy that includes interrelated instructional strategies that help teachers relate subject matter content to real-world situations. These strategies motivate students to take control of their own learning. This is equally true for K-12 schools and for teacher education programs in colleges and universities.

Teacher preparation programs need to become more exciting, creative, and demanding. They need to prepare teachers who are caring, competent, and qualified. To accomplish these goals, teacher educators need to have a vision of the kind of programs they can create. They also need to know how to direct and manage change to turn their vision into reality. Contextual teaching and learning, with its emphases on problem-based learning, anchoring teaching and learning to students’ lives, using the richness of the community as a context for learning, and encouraging students to learn from each other and to take responsibility for their own learning, formed the basis for education reform in the case illustration. While the case study is fictional, it illustrates the necessary change processes to reform teacher education and to improve public schools.

One question remains: Do schools and teacher education programs have the will to change?
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