To Create Self-Renewing Schools.

The changing world requires an improvement in school education, part of which involves the creation of self-renewing educational organizations to assist that implementation. This paper argues that the quality of teacher education can help to produce these self-renewing organizations and describes East Carolina University School of Education's efforts to act on these beliefs. The program is based in the School of Education and is administered by the Department of Educational Leadership (LEED), but works in collaboration with faculty from other schools within the university. The program's goal is to develop double-loop learning. A survey of 38 students enrolled during spring term 1996 indicates that they believed the program was rigorous and that they rated the advising, the interactions among the students and faculty, and the schedule and structure of the program as effective. Students suggested that faculty strengthen the research and methodology component and address gender and racial insensitivity. The paper concludes that the program needs to work harder at following the guiding principles of double-loop learning—valid information for decisions, free and informed choice, internal commitment to choice, and constant monitoring of implementation. A list of 14 students and the titles of their dissertations is included. (Contains 20 references.) (LMI)
To Create Self-Renewing Schools

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Presented at the Annual Conference of JUSTEC—the Japan-US Teacher Education Consortium, July 15-18, 1996, Naruto University School of Education, Naruto City, Tokushima Prefecture in Shikoku Island, Japan
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First, I would like to thank Mizoue-Sensei and the Conference Preparatory Committee for their invitation to the Japan-US Teacher Education Consortium Annual Conference. It is an honor and a pleasure to work with such distinguished colleagues. The purpose of this paper is to suggest that the changing world requires an improvement in school education, that creating educational organizations that can learn to adjust themselves, i.e., become self-renewing, may assist that improvement, and that the quality of teacher education can help produce these self-renewing organizations. In addition, I will report on East Carolina University School of Education’s efforts to act on those beliefs.

Rationale

The rate of technological change on this planet seems to increase exponentially. "... knowledge has become the only source of long-run sustainable competitive advantage, but knowledge can only be employed through the skills of individuals" (Thurow, 1996, p. 74). Computer technology and the research on manipulating the genes of organisms suggest industrial developments that we can hardly imagine and problems that will be unique.

Finally, it should be noted that sometimes the complementary changes necessary for the success of a new technology are not technological. A successful technological change may require changes in basic habits and attitudes. (Volti, 1995, p. 42)
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The rate of societal and technological change may seem even faster because it alters the ideologies through which we view the world (Thurow, 1996). In the 21st century human beings will be faced with many difficult decisions in new and rapidly changing contexts.

Technology and ideology are shaking the foundations of twenty-first century capitalism. Technology is making skills and knowledge the only sources of sustainable strategic advantage. Abetted by the electronic media, ideology is moving toward a radical reform of short-run individual consumption maximization at precisely a time when economic success will depend upon the willingness and ability to make long run social investments in skills, education, knowledge, and infrastructure. (Thurow, 1996, p. 326)

Most societies developed on the premise that the family, clan, tribe, or nation had to work together to compete against the "other", the outsiders. The economy of the 21st century will require more collaboration because it will be global. A person working for any company in the 21st century may not only be sent to different cities but also to different countries to work.

The political realities on the various continents will affect the quality of life for everyone on the planet. For example, a nuclear conflict on any continent will affect the entire planet. Political conflicts on any continent can affect the flow of natural resources throughout the world.

Earth is the only home that human beings currently have. How we treat the planet in the 21st century will determine the type of home that we have. We all breathe the
same air and need water. Because of our increased power to alter the environment, we will be increasingly environmentally interdependent.

Finally, intolerance and violence based on group membership, i.e., culture, ethnicity, nationality, race, and religion, have been one of the major characteristics of the 20th century. As we come to the close of the 20th century, indicators in the United States suggest that intolerance and violence will be a major problem in the 21st century.

The burning of a predominantly black church in South Carolina on April 26 was the latest in a string of 31 incidents of arson or suspected arson at black churches throughout the South since 1989. Fifteen of these have occurred since December 1995. As of early May, authorities had made twelve arrests in nine of the incidents. One of the defendants--arrested for two church burnings in South Carolina--allegedly has ties to the Christian Knights of the Ku Klux Klan. (Klanwatch Project, 1996, p. 12)

In addition, the Klanwatch Project (1996) reported that the United States growing Militia/Patriot movement has its roots and foundation in the traditional White supremacist movement.

These dilemmas are simply a sample of the challenges that the 21st century will present to us. Schools must help prepare us for these new challenges and we need to help prepare schools for their task.

Self-renewing Organizations and Teacher Quality

Human beings generally have a strong commitment to the status quo. Schon (1971) calls it a desire for the stable state.
Belief in the stable state is belief in the unchangeability, the constancy of central aspects of our lives, or belief that we can attain such a constancy. Belief in the stable state is strong and deep in us. We institutionalize it in every social domain. We do this in spite of our talk about change and our approval of dynamism. (Schon, 1971, p. 1)

Most organizations develop a culture that tries to protect the stable state in organizational members, i.e., protect them from information overload and uncertainty (Schein, 1985; Schon, 1971). Yet the rapid rate of change in most societies suggests that the reality of the stable state will be lost to most people (Schon, 1971). If an organization's culture, structure, and procedures do not adapt to meet changing needs, the organization will become ineffective (Schein, 1985).

Argyris (1983) argued that an organization could meet the needs of its members and effectively meet its external challenges by developing the ability to learn as an organization, i.e., renew itself. Argyris and Schon (1974) called this ability double-loop learning. Double-loop learning attempts to create situations "in which the basic assumptions behind ideas or policies are confronted, in which hypotheses are tested publicly, and in which the processes are disconfirmable, not self-sealing" (Argyris, 1983, pp. 103-104).

The end result should be increases in the effectiveness of decision making, in the monitoring of decisions and policies, and in the probability that errors and failures will be communicated openly and that actors will learn from the feedback. (Argyris, 1983, p. 104)
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A necessary condition for an organization that wants to pursue double-loop learning is having organizational members who possess that knowledge and skill. In other words, if we want the schools of the 21st century to be self-renewing organizations we must produce teachers and educational leaders whose actions are a function of these governing variables: (a) valid information, (b) free and informed choice, (c) internal commitment to the choice, and (d) the constant monitoring of implementation (Argyris, 1983).

Preparing Educators for Learning Organizations

Because teachers' awareness and understanding of their students and classroom events will always be limited, they must gather and consider information about educational situations from multiple sources. They must temper their judgments and remain open to alternative interpretations and strategies. (LaBoskey, 1994, p. 122)

Dewey (1904, 1910) emphasized the importance of translating theory to practice in education and the importance of reflection in that process. Eighty years later Schon (1983) emphasized the same point in his work on the reflective practitioner. Sergiovanni (1987) added that educational leaders must organize themselves and their schools for successful schooling. One necessary condition for effective reflection among educators is that they understand that they are part of a complex interdependent process, in which each element is affected and affects each other element. They need to understand that they are part of an open system (Haas & Drabek, 1973) that is constantly attempting to adjust to various forces that impact the system. Reflective practitioners need to understand that
intuition, experience, and empirical data are all valid sources of information and they need to learn how to use all three sources to reinforce one another (Sutherland, 1973).

Brubaker, Case, and Reagan (1994) suggested that the use of reflective journals and action research are two strategies that could be used to educate reflective practitioners. When students use reflective journals they are encouraged to describe what they observe during their clinical experiences and to analyze those data through multiple theoretical perspectives. Action research requires students to integrate experiential, theoretical, and empirical data to solve educational problems. The East Carolina University School of Education is using both strategies to try and educate reflective practitioners in its Ed. D. Program in Educational Leadership.

A Snapshot of an Attempt to Prepare Educational Leaders

The Board of Governors of the University of North Carolina gave East Carolina University permission to establish a Doctor of Education degree program in 1990. The Program leads to an Ed. D in Educational Leadership. It is designed for senior school administrators. The Program is based in the School of Education and administered by the Department of Educational Leadership (LEED), but it uses courses and faculty from other schools within the University. The program has five components, which combine for a minimum of 60 hours beyond the Masters Degree: (a) The leadership core requires a minimum of 24 credit hours. (b) The cognate area requires 12 credit hours. This area is designed to complement the student’s major area of study and his career goals. (c) The one-year supervised internship is designed to provide leadership experiences in educational settings. The internship experience relies heavily on reflective journals and
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action research. The internship generates 6 credit hours. (d) The research core is
designed to prepare students to evaluate, synthesize, and apply research to research
problems and to generate new research through carefully designed studies. This
component has a minimum of 12 credit hours. (e) The doctoral dissertation is designed to
address an area of inquiry that serves not only to advance the student’s knowledge but
also benefits educational organizations. The dissertation generates 6 credit hours.

The faculty in Educational Leadership worked in collaboration with faculty in the
School of Education and other units within the University to develop a program with high
expectations and high support. The faculty wanted to emphasize the translation of theory
into practice that would benefit education in North Carolina. They also wanted to
persuade students to believe in the efficacy of disciplined inquiry (Jaeger, 1988) through
collaborative efforts and through modeling (Sergiovanni, 1987). The LEED faculty
emphasized the use of problem-based learning in the Ed. D. curriculum (Barrows, 1985;
Pajak, Tanner, Rees, & Holmes., 1995; Wilkerson & Felletti, 1989). The following
factors guide the instructional process:

1. Students encounter or identify an issue which offers a problem of
   professional practice.

2. They engage in problem-solving in a group interactive process.

3. They apply their new information and knowledge to the problem.

4. They summarize what has been learned (Pajak, et al., 1995).

In other words, the faculty tried to prepare students to become double-loop learners and
to model double-loop learning for the students.
Educational Leadership Department (LEED). The LEED Department offers four
graduate degree programs, MAED in Supervision, MA--Masters of School
Administration, Ed. S. in Educational Administration and Supervision, and Ed. D in
Educational Leadership. Ten faculty positions have resided in the Department.

Program implementation. The first cohort of 11 doctoral students enrolled in Fall
1990. Sixty-five students have enrolled in the program in six cohorts, i.e., 1990, 1991,
1992, 1993, 1994, 1995. Fourteen students have graduated from the program (see
Appendix A), 1 died, 5 have withdrawn--8% attrition, and 7 did not take courses in
Spring 1996. Thirty-eight students were enrolled in courses during the Spring of 1996.

The evaluation process. A team of three faculty members in the School of
Education, East Carolina University started an evaluation of the doctoral program during
the Spring of 1996 and they plan to continue data collection throughout the Summer.
Given the background and goals of the Ed. D. Program in Educational Leadership, the
evaluation team developed several evaluation questions:

1. Was the academic program rigorous?
2. Was the advising in the program effective?
3. What was the climate and culture of the program?
4. What was the nature of the interaction among the faculty and students?
5. Was the design and scheduling of the program effective?
6. Did the students experience personal growth?
7. Did the students experience professional growth?
8. What suggestions did the students have to improve the program?
One part of the evaluation process has been completed, i.e. a survey of the students who were enrolled in Spring 1996. Those data can provide some insight into the progress of the program. The 38 students enrolled in Spring 1996 were the population for a student survey (see Appendix B). The survey addressed 10 issues: (a) academic rigor, (b) advising, (c) cohesion of cohort group, (d) respect and courtesy of the faculty, (e) access to LEED faculty, (f) access to other School of Education faculty, (g) translation of theory to practice, (h) scheduling, (i) research methodology, and (j) recommendations.

**Student survey findings.** The results of the student survey were positive. The student survey had nine Likert scale positive statements about the program. The respondents were asked to rate the positive statements from strongly agree (1) to strongly disagree (4). The 30 respondents, 79% of the population, agreed or strongly agreed with the nine Likert scale questions (see Figure 1).

![Histogram of Scores on Likert Scale Questions of Student Survey](image)

**Figure 1.** Histogram of Scores on Likert Scale Questions of Student Survey
Twenty-six of the respondents made comments or suggestions. Two themes were mentioned by several students: (a) The research sequence should place more emphasis on the practical application of research methodology, (b) Students should receive better guidance and support through the dissertation process, (c) The admissions criteria should be broadened to include classroom teachers, and (d) general positive comments about the program. Other comments addressed the following issues:

1. More opportunities for cohort cohesion
2. Reduce the size of the required seminars
3. Use more diverse instructional strategies
4. Offer more courses more often.
5. Address gender and racial bias.

The faculty in the School of Education has already begun to reconceptualize the research sequence and its relationship to the other elements of the Ed. D. Program of study. The Educational Leadership Department has developed new procedures for the approval of dissertation proposals, has adopted a revised dissertation manual for students, and will provide more systematic opportunities for a cohort to meet. The limited resources of the program prohibit broadening the admissions criteria.

The size of the required seminars will be reduced by offering a second section of the seminars. The operational objectives for the 1996-1997 School Year focus on strengthening the range of instructional strategies that the faculty will use. We cannot increase course offerings until we acquire additional resources. The concern about gender and racial bias is troubling. Rumors have circulated about these problems in the
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School of Education, but we have not addressed them directly. This is a major challenge for the faculty of the School of Education. I hope we can meet it.

Reflections. The 14 students who had completed the Ed. D. Program in Educational Leadership at the time of this analysis developed dissertations that investigated questions that intrigued them and addressed the needs of public education. The LEED faculty’s efforts to incorporate problem-based learning and technology into the Ed. D. curriculum conform with best practices in the field (Geltner, 1995; Pajak et al., 1995; Wendel, 1992). In addition, the use of cohorts and field-based internships are consistent with emerging trends in the field (Hackman & Price, 1995).

The student survey findings indicate that students believe that the program is rigorous, the advising is effective, the interactions among the students and faculty are effective, and the schedule and structure of the program is effective. The comments suggest that the faculty could strengthen the research and methodology component and the dissertation process. In addition, some elements of the culture, such as perceived gender and racial insensitivity, may impact the effectiveness of ECU’s Ed. D. Program in Educational Leadership. These findings are consistent with conclusions of an assessment of a relatively new Ed. D. program in Educational Leadership at the University of Georgia.

A major conclusion drawn from the data is that an adjustment to changing interpersonal dynamics between professors and students and deliberate planning are essential to the effective implementation of this type of program. (Pajak, et al., 1995, p. 18)
My personal observations suggest that the LEED faculty could improve how we model double-loop learning, i.e., we do not always practice what we preach. For example, we need to improve collaboration with all School of Education faculty and our graduate students. We need to work harder at following the guiding principles of double-loop learning: (a) valid information for decisions, (b) free and informed choice, (c) internal commitment to choice, and (d) the constant monitoring of implementation (Argyris, 1983).

Despite those limitation and the other challenges that we face, ECU’s School of Education has made significant progress in the implementation of the Ed. D. in Educational Leadership. The preliminary findings of the comprehensive evaluation and the professional success of our students, e.g., one of the current students in the Ed. D. Program in Educational Leadership was selected as North Carolina Principal of the Year, support that conclusion. I believe that faculty commitment to disciplined inquiry and reflective practice will be central in the program’s continued growth and development.

Implications

First, I believe that developing schools that can renew themselves to educate effectively all their students for productive lives in the 21st century is a necessity. Second, one strategy to create schools that learn is to create reflective educational practitioners. Third, creating reflective educational practitioners is possible, but it requires thorough planning, a strong conceptual base, comprehensive clinical experiences for students, and a strong commitment to excellence and collaboration among the faculty.
References


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Appendix A

<table>
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<tr>
<th>Ed. D. GRADUATES</th>
<th>YEAR</th>
<th>DISSEMINATION TOPIC</th>
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<tr>
<td>Nancy Lucille Daniel</td>
<td>1996</td>
<td>Field Testing Science Curriculum</td>
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<tr>
<td>Karen Robbins Dawkins</td>
<td>1996</td>
<td>Fostering Teachers’ Understandings of the Nature of Science: A Professional Development Model</td>
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<tr>
<td>Mary Whitaker Fox</td>
<td>1995</td>
<td>A Model of a Community Program for African American Males.</td>
</tr>
<tr>
<td>Mark Raymond Marquez</td>
<td>1996</td>
<td>A Competency Based Needs Assessment of the Continuing Education for Certified Clinical Social Workers.</td>
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<tr>
<td>Laurie Jean Spring</td>
<td>1996</td>
<td>An Assessment of the Perception and Awareness of Quality in the Johnson County School System.</td>
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Charles R. Watson 1992 Attitudes of Middle School Teachers Toward Practices Recommended for Middle Schools.


Susan E. Whitfield 1995 A Study of Reasons for Student Nonattendance in four rural high schools in Eastern North Carolina.

Appendix B

STUDENT EVALUATION SURVEY
ECU SCHOOL OF EDUCATION Ed. D. PROGRAM IN EDUCATIONAL LEADERSHIP

Please circle the year that you were admitted to the Ed. D. Program:


1. The academic rigor of the program and individual courses is appropriate for the development of scholarly practitioners of educational leadership.

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree

2. My advising in this program has been informative and helpful

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree

3. My class cohort is a cohesive group; we cooperate with one another.

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree

4. The faculty treat me with respect and courtesy.

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree

5. I have had adequate access and interaction with the faculty who have taught courses in the program.

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree

6. I have had adequate access and interaction with other faculty in the Department and School.

   1  2  3  4
   Strongly Agree  Agree  Disagree  Strongly Disagree
7. I have learned a great deal about the translation of theory into effective practice during my internship.

1  2  3  4
Strongly Agree  Agree  Disagree  Strongly Disagree

8. The scheduling of courses has been logical, well-organized, and effective.

1  2  3  4
Strongly Agree  Agree  Disagree  Strongly Disagree

9. The research methodology courses have been effective.

1  2  3  4
Strongly Agree  Agree  Disagree  Strongly Disagree

10. What recommendations do you have for the improvement of the Ed. D. program in educational leadership.

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<tr>
<td>Corporate Source:</td>
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