DOCUMENT RESUME

ED 418 057 SP 037 846

AUTHOR Cole, Donna J.; Ryan, Charles W.
TITLE Documentation of Teacher Education Field Experiences of Professional Year Interns via Electronic Portfolios.
PUB DATE 1998-02-00
NOTE 40p.; Paper presented at the Annual Meeting of the Association of Teacher Education (78th, Dallas, TX, February 13-17, 1998).
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Computer Uses in Education; Educational Technology; Elementary Secondary Education; Evaluation Methods; Graduate Study; Higher Education; Mentors; *Portfolio Assessment; Preservice Teacher Education; Reflective Teaching; *Student Evaluation; Student Teachers; Student Teaching
IDENTIFIERS *Authentic Assessment; Reflective Thinking; Wright State University OH

ABSTRACT

This paper documents the development of an authentic assessment evaluation process at Ohio's Wright State University (WSU), examining authentic assessment efforts related to PRAXIS III/Pathwise Assessment, which is being piloted by the Ohio Department of Education as the model for teacher licensure. Portfolios receive major attention during WSU's introductory education coursework, methods courses, and student teaching (when students complete a portfolio product that demonstrates competency in achieving teacher education objectives, passing the National Teacher Exam, and fulfilling intern teaching requirements). Portfolio assessment is also used in a course, The Teacher in School and Society, during the last semester. Students participate in mentoring partnerships and early field experiences. In 1995, faculty initiated a portfolio process that involved Professional Educators Program (PEP) interns in developing electronic portfolios for documenting professional skills, using PRAXIS domains/criteria as the model. PRAXIS emphasized organizing content knowledge for student learning, creating environments for student learning, teaching for student learning, and teacher professionalism. PEP students were introduced to portfolios, which they had to complete and present upon entry to PEP. Throughout all programs of study, there was infusion of authentic assessment opportunities. Specific technologies used in WSU's program include videorecorders, personal computers, CD-ROM units, educational software, on-line services, videodisk players, an educational resource center, and the Internet. Seven appendixes offer a sample portfolio scoring template, the PRAXIS index, and information on organizing content knowledge for student learning, creating an environment for student learning, teaching for student learning, teacher professionalism, and Ohio licensure. (Contains 37 references.) (SM)

# Documentation of Teacher Education Field Experiences of Professional Year Interns Via Electronic Portfolios

by

**Donna J. Cole, Ph.D.**
**Professor of Education**

**Charles W. Ryan, Ph.D.**
**Professor of Education**

**Presented at**

**Association of Teacher Education**

**78th Annual Meeting**
**Dallas, Texas**
**February 13-17, 1998**

# Table of Contents

## Abstract

The purpose of this article is to document development of an authentic assessment evaluation process within a select teacher education program at a state metropolitan university. Specifically, The College of Education and Human Services at Wright State University has been working since 1987 to develop and refine a portfolio assessment approach for use with candidates preparing for teaching as a career. This paper will document efforts in authentic assessment as they relate to PRAXIS III/ Pathwise Assessment which is being piloted by the Ohio Department of Education as the model for teacher licensure in Ohio.

As part of the PRAXIS III/Pathwise assessment process we have developed both hard copy and the electronic portfolio for use in demonstrating teacher proficiency. A part of this documentation relates to the professionalism of entry year teacher candidates and those participating in the internship program. We believe the portfolio provides a viable procedure for documenting professional activities by entry year teachers as it relates to elements of self-concept. For example, professional success and reflective comments on the value of working with our nations youth. The print or electronic portfolio permits the teacher to document a number of successful activities correlating to the process of teaching and provides feedback that ones efforts are worthwhile and valued within the school. Evidence illustrating work with students' learning, coupled with administrative, peer, and parental feedback are elements that can be documented in an authentic assessment portfolio.

In summary, the portfolio permits documentation of professional competence in teaching and personal self-growth that reflects a positive self-esteem and recognition of rewards that accompany the profession of teaching. The evidence provided in this seminar is indicative of initial efforts to change traditional evaluation practices.

## A BRIEF REVIEW OF ASSESSMENT HISTORY

Evaluation remains an essential responsibility of educators. Public concern about the quality of schooling has frequently resulted in statewide comparisons of testing results by school and grades that appear in local newspapers. The public uses these scores to determine the succes of educating students in their community. Scores alone lack the comprehensive scope of assessment and evaluation; however, much more goes into determining learning and teaching. Educators must incorporate both traditional and authentic assessment procedures to accurately interpret professional growth.

This paper addresses both formal and informal assessment and relates one institution's attempt to provide a bridge to a authentic assessment. A brief historical overview provides a framework for understanding why assessment confusion in determining educational institutions learning has resulted.

The influence of testing on educational systems and policy is considered to be more powerful now than in any time in history (Cole, Ryan, & Kick, 1995). Testing experts have control over schools and instructional programs, that at times, become the curriculum (Valencia, Pearson, Peters & Watson, 1989). Within the nationwide outcry for reform, a counter demand for test score improvement impedes educational progress. Educational progress is undermined by the pervasive use of tests that contrast with current theory and practice (Valencia et al., 1989).

Evaluation, not a new concept, clearly was evident when Socrates used mediated evaluations with his students as part of his attempt to guide learning. Even the Chinese (200 B.C.) conducted civil service examinations (Worthen and Sanders, 1973). Our nation's evaluation history is strongly rooted in the testing ideas. Robert Thorndike (early 1900's), called the father of the educational testing movement, helped convince the country of the value of measuring human change. The standardized test paradigm gained momentum in the 1920-30's. *The Eight Year Study* of Tyler and Smith and the accreditation evolution established formalized evaluation as a more substantial process

account for learning. The establishment of the Educational Testing Service (ETS) in 1947 solidified the supremacy of tests as the ultimate assessment tools.

With the school reform movement came dissonance over testing as an indicator of classroom learning and the 1980's theme of "accountability" fostered test documentation. School systems invested huge amounts of time, energy and money into standardized testing. Minimum competency tests, state-mandated tests, criterion-referneced tests and nor-referenced tests were but a few that became an active part of the school schedule. These assessments involve limited tasks (e.g., reading a phrase and answering a multiple choice item). A major criticism emphasizes that most tests required lower level thinking skills and ignore higher-level (perhaps controversial, but certainly more life useful) skills. Almost every state expects educators to teacher for knowledge, skills, attitudes, and values, yet tests give little or no information on these, except for selected cognitive knowledge. While traditional modes of assessment continue in a majority of classrooms, educators do recognize the problems inherent to these tools.

Recently, there has been a movement that opposes mere testing for accountability, and this shift is supported by evidence from educational psychology theorists who view learning as "constructive and interactive in nature" (Wolf, 1989). As we move toward the turn of the century, educators are determined to clarify the necessity for more and better multi-dimensional assessment tools. A revisit to informal strategies from the 1960's and early 1970's left educators short of a satisfactory method for assessing the dynamic process involved in learning. A cry for authentic assessment, rich in documenting all aspects of learning, surfaced.

## AUTHENTIC ASSESSMENT DEFINED

Several characteristics represent authentinc assessment. Of prime importance to educators is the belief that assessment should measure student performance in relation to sound educational goals. The students should be exposed to content germane to these goals and must reflect the student's current work. Since learning represents much more than merely retaining given knowledge and mastering a set of discrete skills, authentic assessment must be multi-dimensional to include all the knowledge, skills, attitudes, and values identified by the system as essential. Learners should be asked to apply skills, integrate knowledge, and demonstrate values and attitudes. Multi-dimensional means to employ multiple indicators of students' performance. This new assessment requires the attention of both student and teacher. Examples of the process include observation, conferencing, the writing process, self evaluation, collaborative evaluation, as well as traditional paper and pencil tests which are used to show accountability.

Authentic assessment must be held in esteem by the total educational community. The assessments involved should be useful, worthy, and meaningful to student and learning community. Thus, students are held accountable for learning of substance; likewise, educators are held accountable to provide students with informative feedback to students. Checklists, a single letter grade or number has little or no feedback for students' continual growth. Authentic assessment should be unbiased in terms of race, culture, and gender. Also, authentic assessment should reflect what students are learning and help them to gain confidence in their ability to master the subject.

Fundamental to authentic assessment is the principle that students demonstrate, rather tell or question, what they know and can do. Hence, authentic assessment normally results in performance indicators. Performance based assessment expects the students to demonstrate, in a natural context, what they have learned. This type of evaluation can be open-ended and structured or unstructured, announced or unannounced

or close-ended (Wiggins, 1989). In designing performace based assessment activity, four ideas should be considered:

- The purpose for the activity should be clear. The instructor should know how he/she will use the results.
- The activity should be designed relative to instructional goals, asking students to apply what they learned.
- The activity should have more than possible answer and perhaps more than one possible outcome.
- Student designed activities could serve as a possible assessment.

Assessment of this nature needs to be developed within the school schedule. The assessment is administered at various points during students' sequential progress, which leads to a more comprehensive view of the students' learning; however, thus requiring educators to clarify how students undertake the task.

Scoring authentic materials causes concern from evaluation experts. By careful analysis and keeping written records provides concrete evidence. A decision is then made by holistic or analytic scoring for evaluation. The scoring criteria should be established before the assessment is administered to students as well as teachers must understand the task, purpose, and usability. All recording devices need to be available before the students undertake the activity (e.g., checklists, rubrics, and rating scales). As the evaluation is scored, written criteria provide the guideline rubric (Wiggins, 1989).

Although testing will be a part (usually limited), most of the assessment involves a process of unobtrusive information-gathering about students' learning. The assessment evidence will be collected during the course of the daily schedule; it is an on-going process. Efficiency is inherent in the design since the educators will spend less time on preparation for standardized testing. The side effect of trauma also declines and the classroom environment remains more student-learning centered. Students' learning is

explored through questions and observations. The assessment becomes more relevant to the learning task.

The employment of portfolios has obtained significant attention as an alternative to traditional student assessment. There are several reasons why portfolios accurately attend to authentic assessment criteria. Portfolios contain actual artifacts. Because the portfolio can contain many entries, both formal and non-traditional entries can be incorporated. Thus a full range of cognitive and affect skills can be evaluated. The ultimate result will be more reliable due to the availability of multiple illustrations of academic performance. A clear advantage of portfolio assessment rests with the teacher evaluating the students' learning process. Therefore, current learning theories are supported and utilized. Built on this advantage is the involvement of the learners own assessment. The individual helps in the selection of work samples, and even more importantly, reflects on what the selected entry represents. Students examine, analyze, and reflect on their work. This provides them the opportunity to reflect on the depth of their learning and enhance their personal self-concept.

## REFLECTION THEORY

**Given:** **Students are seldom requested to reflect in conventional assessment practice.**

When preliminary work entries appear in portfolios, student's reflection on each step of the learning process leads to completion. Students gain knowledge and understanding of "the scope of what they learned" (Wolf, 1989). Although original reflections might focus on less significant dimensions as neatness of showmanship, with practice, students develop the ability to modify and expand their criteria and factos. Students and teachers need guidance in writing reflective statements. If studetns are not guided in reflective writing, they will tend to summarize what the selection is rather than analyzing and extrapolating what wen into the entry and why it represents learning, etc.

According to Killion and Todnem (1990), there are three reflection categories. first, reflection-on-action requires looking back upon what one has accomplished and reviewing the actions, thoughts, and product. The second form of reflection is reflection-in-action. In this relective activity, the individual is responsible for reflecting in the act of carrying out the task. If, for example, the student is writing a story and has left out the setting, reflection in action could guide the correction the major component of story writing. The final reflection form centers on reflection-for-action. This reflection form expects the participant to review what has been accomplished and identify constructive guidelines to follow successfully in the given task in the future.

## THE REFLECTIVE TEACHER

**Given: In authentic assessment, it is imperative that teachers reflect.**

Teachers in an authentic assessment environment do reflect. According to Lasley (1992), "A teacher's level of experience will influence an ability to reflect critically . . . Neophyte teachers will not exhibit to the same capacity for critical reflection that would be possible for more veteran teachers."

Dewey (1904) attends to reflective ability when he discussed "habit of reflection." To Dewey, teachers should know how (the technique) to teach and know how to reflect on the techniques used in classrooms. Reflective teachers, Dewey adds, were freed from engagin in impulsive or routine action.

A reflective teacher will be able to lead in our reformation of schools. Posner (1985) argues that "reflective teaching will allow (the teacher) to act in deliberate and intentional ways, to devise new ways of teaching rather than being a slave to tradition, and to interpret new experiences from a fresh perspective."

VanManen (1977) described a conceptual focus on critical reflection. He identified three levels of critical reflection. The first level centered on technical criteria. At this level, reflection was concerned with thinking about what techniques were used to

achieve the stated objectives. The second level involved conceptual reflection. The conceptual level focused on the relationships between the instructor's practicees and the theoretical principles guiding the practices. The final level, ethical reflection, would enable the goal of the teacher preparatory program, designed to make reflective teachers, to move pre-service educators form a 'how to' perspective to discussing reflective decision-making. Hence, to be a reflection instructor, one should assess the consequences of actions and determine ethical, political, and moral implications for schooling and learning (Goodlad, 1994).

Other theorists have constructed developmental typologies in describing reflection. The work of Kitchener and King (1981) and Ross (1989) attempt to deal with analysis of reflections. This developmental approach suggests that teachers progress through stages of development related to reflective ability, e.g., reflecting on the quality of their work/teaching.

In order to constructively assist students with reflection, an instructor must become proficient at asking leading reflective questions. Wellington (1991) highlights some useful reflective types of questions:

- **What did I do?**
- **What does it mean?**
- **How did I come to be this way?**
- **How might I do things differently?**
- **What have I learned?**
- **What have I learned about self?**

Reflective teachers look at techniques and frustrations to improve instruction and help students learn. In a cyclical pattern, as a teacher reflects more, his/her assignments will be more reflective in nature, requiring studetns to reflect more. Thus, a reflective teacher nurtures reflective, exploring students. Reflections allow students to review their own progress by analyzing their work throughout the year. Studnts who reflect on their work over time can see how their thinking and working processes have improved. Assessment of student reflections has concered many educators. Nevertheless, student reflections

must be assessed. Teachers need to write feedback to students, thus guiding their reflectivity. For example, "Harry, you did a fine job of summarizing the selection. What about exploring what you are now confident in doing? What will you do to enrich the activity in the future?" This kind of feedback leads the students to reflectivity. Once again, to answer the question "Should reflections be assessed?, the answer if yes!" It is a fact that assessment of reflection takes time, but it is certainly time well spent, both morally and educationally.

In order to initiate portfolios, a preliminary assessment determines if physical construction is adequate. A checklist or criteria building list helps the student understand what must go into the design (See Appendix A). Once the portfolio construction is finalized, then evaluations should assess mastery of knowledge, skills, and attitudes.

Some portfolio advocates believe that formal tests should be eliminated from the portfolio. Rather than viewing formal and authentic assessment as polarized, authentic assessment actually bridges standardized testing and class assessments. Within the portfolio, a student might include standardized test results with reflective statements.

**Given Two: The primary sucess of evaluation is to have students take the ownership of their learning.**

This given suggests that for too long teachers have accepted the responsibility of student learning. Teachers were responsible to know how each student learned and were expected to make learning occur with each students. It did not work, did it? Why, because the student was relieved of the responsibililty of accounting for his/her own learning. The public was paying for its free public education, and educators were being held responsible for students learning. Students were freed up to act as the resister, as if the whole program was their oppponent. Students challenged the actual act of learning. In the planning stages, multiple scoring strategies must be decided. Instructors must detail with: (1) types of assessments and (2) when assessment will occur. What will be

the place of formal assessments? Will you require students to have formalized tests within the portfolio? It also helps them reflect on their tests taking skills and behaviors. In order to get the portfolio established, a checklist or point sheet can be devised to bring all students on line.

## WRIGHT STATE UNIVERSITY MODEL

Wright State University (WSU) is a metropolitan state-supported university dedicated to the educational, social, and cultural needs of the Dayton area with an enrollment of 17,000 graduate and undergraduate students.

Portfolio development began at Wright State in the fall of 1988 as a department-wide endeavor. The areas in which portfolios received major attention were: (1) Phase I-Education: In this program phase, the beginning teacher education student is enrolled in introductory education course work and is required to begin a Process Portfolio; (2) Phase II-Methods: Courses are completed in the second, third, and fourth year; and (3) Phase III-Practicum: In the final phase, the students conclude their pre-service training with student teaching and are required to complete a Product Portfolio demonstrating their competency in achieving the Teacher education objectives, pass the National Teacher Exam, and successfully fulfill intern teaching requirements. Along with student teaching, students take their last education course, The Teacher in School and Society. In this course, the portfolio is employed as an assessment tool for the students. Methodological faculty, instructing in Phase II, continue portfolio development with students who have completed the portfolio introduction in Phase I. The portfolio originally contained five sections as well as the introduction and conclusion. The sections are: Professionalism, Content Master, Content Pedagogy, Classroom Management, and Student-specific Pedagogy.

During the Phase I experience, students take two education courses and participate in a mentoring partnership. They also have one field experience before the

term starts which lasts for one week. The "phase" design permits mentoring throughout the four-course sequence, and a mentoring professor may instruct all four courses.

At the end of the quarter, the portfolios receive a "mentor review" with the evaluation centering on adherence to the prescribed criteria, especially the reflective statements. The mentors use the portfolios during the student/mentor conference held in the last 10 days of the term. They became an asset for these conferences. Students used the portfolios as an analytical tool for their efforts and found the portfolio activity useful in connecting life experiences to undergraduate education (self-esteem). Formal assessment instruments are infused into two sections of the beginning portfolio. In the Professional section, students are expected to place two personality assessments and reflect on them (The Myer-Briggs and the Edward's, Self-Concept). In the Content Mastery section, they are to place thwir PPST scores, as well as other tests and achievement instruments that document their content mastery.

Another element of the WSU project involves Phase III, Student Teaching. Student teaching occurs as the terminating experience in the pre-service program and the teacher education faculty believed that in the best interest of graduating students, they construct a Product Portfolio from their process portfolio. The Product Portfolio has several formal evaluation instruments within it. The professional section can have personality instruments and the Professional section of the National Teachers Exam, but it must have proof of the professional teacher education competencies. The content pedagogy section must have the National Teacher Exam sections on content. Other formal content instruments like content classes' formal assessments, PPST, or other standardized tests are suggested. Students are required to reflect on these formal instruments and analyze the results.

In 1995, selected faculty initiated a portfolio process with the Professional Educators Program (PEP) Interns to develop an electronic portfolio for documentation of professional skills. The PRAXIS Professional Assessment Domains/Criteria were

selected as the model (ETS, 1995) for each interns portfolio. The following PRAXIS Domains are used:

Domain A - Organizing Content Knowledge for Student Learning
Domain B - Creating an Environment for Student Learning
Domain C - Teaching for Student Learning
Domain D - Teacher Professionalism

Each intern develops a portfolio (See Appendix B, C, D, E, F) that documents proficiency in each area.

The professional portfolio permits students and/or entry year teachers to document problems in classroom management, learning difficulties, motivational issues, peer relationships with other teachers, and ultimately personal satisfaction with their chosen field. By constructing a PRAXIS III domain oriented portfolio, teachers are more comfortable and assured when undergoing the entry year PRAXIS III evaluation.

Professional Portfolios at Wright State University for both unergraduates, graduate students, and professional year interns are specifically oriented around PRAXIS III professional assessment domains. We have subscribed within teacher education and the educational leadership department to use the PRAXIS III domains for assessing and documenting skills of beginning teachers in classroom settings. In particular, Domain D: Teacher Professionalism, permits ample opportunity for documentation of self-esteem activities that lead to enhanced professionalism. In this category, teacher candidates can document certifications awarded, special awards, degrees completed, colleague comments about teaching, and professional evaluations from professional administrators and others. Information of this source has a profound impact on self-esteem and even more so when the candidate is able to see the material in a fully developed professional portfolio.

**Technology and Portfolios:**

At this point, it is essential to shift to the role of technology in portfolio development. We believe the electronic portfolio provides a unique opportunity to assist students with professional growth. A major research question in documenting portfolio

use centered on **"What roles can technology play in assessment of graduate students?"**

When developing skills - PEP teachers post baccalaureate programs with important new portfolio directions surfaced:

Premise I: The portfolio must begin in the first course designed around the PRAXIS Domains in an electronic format.

Premise II: A template must be given to interns (PEP students) to serve as the skeleton for the portfolio structure.

Premise III: Inclusion pages must be required for PRAXIS 19 criteria documentation.

Premise IV: Periodical checkpoints need to be established to verify interns' progress.

Premise V: During the summer after the intern year, the final electronic portfolio will be turned in.

Premise VI: Interns are required to demonstrate their attention to and success in addressing the 19 criteria but not proficiency. Proficiency is left to PRAXIS III performance assessment during the entry year.

Technology can be employed by both the student and the teacher to improve performance and instruction. It can provide the means for students to reflect on authentic tasks that will part of their professional life. Teachers can enhance their instruction and lessen their workload by taking advantage of the unique capabilities of various technologies.

The utilization of technology in higher education has been minimal even through technoogy has been evident secondarily by "use of classrooms and labs emphasizing 'hands-on' computer-based drill and practice exercises" (Chambers, Mullins, Boccard & Burrow, 1992). Modern electronic classrooms encourage a change in faculty roles by supporting mentoring, stimulating, and facilitating discussions. The newer electronic

classroom "blocks out outside stimuli and presents situations as realistically as possible, short of the use of virtual reality; thus it projects students into meaningful situationns in which learning occurs faster due to the focus of attention" (Chamber, et al, 1992).

Students entering the PEP program are required to take an entry course that introduces them to their specific program of study, expectations of the department, library resources available to them, and the basic structure and requirements of the portfolio they must complete by the end of their program. In the last quarter of their studies, students complete an exit course. During this course, the student finishes and presents the portfolio, explores and shares research findings within their discipline, and reviews a professional book to share with the class. The exit class meets the first five weeks of summer school and two full time program faculty are responsible for teaching these classes.

Having a common entry point has proven beneficial as students begin to bond with other beginning students, questions are asked and answered, the department has the opportunity to detail expectations, and a mind set is created about the development of the portfolio. Students are instructed on how to write reflectively and are encouraged to do so as their programs progress. The exit class is usually smaller than the entry class and by this time most of the students know each other and end up as sources of support and assistance. having both classes meet at the end has been very helpful for the entering students. The instructors leave the room near the end of the evening to give students an opportunity to talk freely about what the programs are "really like."

There is an infusion of authentic assessment opportunities throughout the entire programs of study. Students are asked to perform tasks and demonstrate knowledge and skills, some of which are videotaped and available for later inclusion in the portfolio if desired. Students learning how to research and explore reference tools quickly on *Internet* sources like 'Gopher and Archie,' and other archival areas both in-house and throughout the world. Instructors have the opportunity to share in these explorations both on-line

through "chat" modes or by reviewing findings via e-mail. The technology class permits and encourages students to create materials that will support their professional work.

Understanding how laser video disks and CD-ROM disks work to reviewing many video-based materials are critical. The department has moved to creating their own video disks or CD-ROMs as an exit product. As the graduate programs progress, video tape is used for reflection and the development of instructional materials. Students and faculty check-out camcorders and tripods to video tape activities in classrooms. Students in PEP are exposed to a variety of hands-on classes and workshops on topics such as Classroom Applications of Computers and Hyperstudio Web Page in which they can demonstrate their skill and knowledge by infusing them in their electronic portfolio.

As technology evolves, so does the variety and depth of use change. Students now, as a matter of course, use video editing equipment to help assemble their video clips that are incorporated in their electronic portfolio. Inserts of examples of lessons taught, interviews, and skill-dependent tasks can be easily included. Student accounts on the university network provide the capability for electronic submission of assignments and electronic office hours with the faculty.

Issues of time spent, costs, and labor are shifted onto the shoulders of the students rather than remain focused on the instructors. Instructors are now able to spend their time in valid and reliable tasks such as reviewing and analyzing video taped excerpts of an intern's day, sharing in the joys and frustrations of on-line reference searches, and critiquing newly produced materials. Faculty and students electronically engage in the oral analysis of research, collaborate on solutions to real problems, and together gain confidence in performance obligations.

**Technology Hardware and Software:**

Specific technology involved in Wright State's graduate program include:

- Video camcorders and editing equipment

- Macintosh and PC computer workstations and labs equipped with laser and dot-matrix printers and scanners
- Internal and external CD-ROM playback units
- Access to over a thousand educational and other computer software programs
- On-line computer services like *America Online, Prodigy, CompuServe,* and *Internet.*
- Access to video disk players and a modest collection of video disk and CD-ROM programs
- Access to an educational resource center with a media production lab, and instructional material collection, a microcomputer alb, and a professional reading area
- Students are given an account on the University's network that enables them to use e-mail, acces to *Internet*, access to the campus libraries, and accessing information and people in remote locations

**CONCLUSION:**

It is now possible to evaluate exit outcomes and areas of the curriculum that are usually not assessed. Traditional testing trends to "over assess student 'knowledge' and under assess student 'know-how' with knowledge" (Wiggins, 1992). The student can also use technology knowledge and skills to achieve and effect products. Course assignments and class activities can be designed to support a variety of approaches, learning styles, and solutions. Technology allows for simulations and examples that are realistic in context, thought-provoking and engaging. Technology can assist in the development of testing activities that can be designed to replicate constraints and opportunities encountered in real-life professional situations. Using International Society for Technology in Education (ISTE) guidelines for technology competencies for all teachers, it is possible to review all programs of study for planning educational applications of technology in teacher education curricula. Even though these guidelines refer to basic teacher knowledge, skills, and attitudes, all graduate education programs will find them useful in establishing instructional outcomes and determining assessment practice.

Higher education along with the rest of the society is racing into a future shaped by technology. Predicting technology's impact on teacher education programs might be done by examining trends and innovations. Computer hardware has and will continue to improve in speed, size, efficiency, capacity, and cost. Software trends include transparent communication between platforms, customizable applications, and converging user interfaces. As lines separating computers, televisions and telephone blur, the information highway will offer all types of possibilities for education and entertainment. Examples could include permanent personal telephone numbers, videophone, on-demand customized products, movies and still images on-demand, customizable television and newspapers, and customized textbooks and instructional materials (Beekman, 1994).

The College of Education and Human Services at Wrigth State University, has begun to restructure teacher education by providing access to technology throughout undergraduate and graduate programs of study and to assess students using a variety of technology tools and experiences. This task is not finished and along the way we must deal with issues of what it means to provide a positive climate for learning, how to support and enhance our faculties' new roles, determining what are appropriate authentic activities, and understanding how best to empower our students by helping them set personal and professional goals, allowing them to work coorperatively, and to engage in self-evaluation and reflection on their performance, progress, and products.

## REFERENCES


Beekman, G. (1994). *ComputerCurrents: Navigating Tomorrow's Technology*. New York: Benjamin/Cummings Publishing Co., Inc., 298-315.

Beichner, R.J. (1993). Technology competencies for new teachers: Issues and suggestions. *Journal of Computing in Teacher Education*, 9 (3), 17-20.

Butzin, S.M. (1992). Integrating technology into the classroom: Lessons from the project CHILD experience. *Phi Delta Kappan*, 330-333.

Chambers, J.A., Mullins, J.Q., Boccard, B. & Burrows, D. (1992). *The learning revolution: Electronic classrooms*. Interactive Learning International, 8 (4), 291-295.

Cole, D.J., Ryan, C.W., & Kick, F. (1995). *Portfolios Acros the Curriculum and Beyond.* Thousand Oaks, CA: Corwin Press, Inc.

Dewey, J. (1904). The relation of theory to practice in education. *The relation of theory to practice in the education of teacher* (Third Yearbook of the National Society for the Study of Education Part 1) (pp.8-30). Bloomington, IL: Public School Publishing.

Flood, J., & Lapp, D. (1989). Reporting reading progress: A comparison portfolio for parents. *Reading Teacher,* 42, 508-514.

Gomez, M.L., & Bloch, M.N. (1991). Reassessing portfolio assessment: Rhetoric and reality. *Language Arts*, 68, 620-628.

Goodlad, J. (1994). *Moral Dimensions of Teaching*. San Francisco, CA: Jossey-Bass Publishers.

Goodlad, J. (1990). *Teachers for our Nations Schools*. San Francisco, CA: Jossey-Bass Publishers.

Hiebert, E.H., & Calfee, R.C. (1989). Advancing academic literacy through teacher's assessment. *Educational Leadership*, 46 (7), 50-54.

Jacobs, L.B. (1990). Reading, writing, reminiscing: Valuable evaluations. *Teaching K-8*, 21 (1), 95-97.

Jobe, H.M. (1993). The problem of assessment. *The Technology Age Classroom*. Oregon: Frankling, Beedle & Associates, Inc., 375-377.

Keithley, J.J. (1993). From experience to expectation. *Beyond Computing*, 2 (6), 50-51.

Killion, J. & Todnem, G. (1990) A process for personal theory building. *Educational Leader*, 48 (7), 14-16.

Kitchener, K. & King, P. (1981). Reflective judgment concepts of justification and their relationship to age and education. *Journal of Applied Developmental Psychology*, 2 (2), 89-116.

Lasley, T. (1992). Teacher reflection: Perspectives on the literature. Paper presented at the 1992 AACTE National Conference, Chicago.

Marzano, R.J., Pickering, D. & McTighe, J. (1993). *Assessing Student Outcomes*. Virginia: Association for Supervision and Curriculum Development, 9-25.

Meyer, C.A. (1992). What's the difference between authentic and performance assessment? *Educational Leadership*, 49 (8), 39-40.

Posner, C. (1985). Field experience: A guide to reflective teaching. New York: Longman.

Ross, P.D. (1989). First steps in developing a reflective approach. *Jounal of Teacher Education*, 40 (2), 20-30.

Schon, D. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Shepard, L.A. (1989). Why we need better assessment. *Reading Teacher*, 45 (7), 4-9.

*The PRAXIS Series: Professional Assessment for Beginning Teachers* (1995). Princeton, NJ: Educational Testing Service.

Todd, N. (1993). A curriculum model for integrating technology in teacher education courses. *Journal of Computing in Teacher Education*, 9 (3), 5-11.

Tuttle, H.G. (1997). Electronic Portfolios Tell a Personal Story. *MultiMedia Schools*, January/February, pp. 3-37.

Valencia, S. (1990). A portfolio approach to classroom reading assignment: The whys, whats, and hows. *Reading Teacher*, 43, 338-340.

Valencia, S. & Pearson, P.D. (1987). Reading assessment: Time for a change. *Reading Teacher*, 40, 726-732.

Valencia, S.W., Pearson, R.D., Peters, C.W., & Wixson, K.K. (1989). Theory and practice in statewide reading assessment: Closing the gap. *Educational Leadership*, 46 (7), 57-63.

Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 12 (6), 1-12.

Vavrus, L. (1990). Putting portfolios to the test. *Instructor*, 100 (1), 48-63.

Wellington, B. (1991). The promise of reflective practice. *Educational Leader*, 48 (7), 4-5.

Worthen, B.R. & Sanders, J.R. (1973). *Educational Evaluation: Theory and Practice*. Worthington, OH: Charles A Merril Publishing Company.

Wiggins, G. (1989). A true test: Toward more authentic and equitable assessment. *Phi Delta Kappan*, 7 (9), 703-713.

Wiggins, G. (1990). The case for authentic assessment. *ERIC Digest*, ED328611.

Wiggins, G. (1992). Creating tests worth taking. *Educational Leadership*, 49 (8), 26-33.

Wolf, D.P. (1989). Opening up assessment. *Educational Leadership*, Dec., 24-39.

# Appendices

# Appendix A

NAME _____
DATE _____

TOTAL POINTS EARNED _____
150 Points

ATTACHMENT THREE

# PRODUCT PORTFOLIO SCORING CRITERIA

RATIONALE: Public School Administrators have requested that students reduce the size of their portfolios. The **process** portfolio is excellent to show growth, achievement of objectives and mastery. The **product** portfolio should demonstrate in 3-5 entries exactly how the future educator can demonstrate proficiency.

SCORING PROCEDURE: The following guidelines will be used to assess your product portfolio.

| CATEGORY | SCORING CRITERIA | REFLECTION COMMENTS |
|---|---|---|
| **1. INTRODUCTION:** | | |
| | _____ 1. Title Page | |
| | _____ 2. Introductory Page Reflection | |
| | _____ 3. Executive Summary (25 pts.) | |
| | _____ 4. Philosophy (25 pts.) | |
| | _____ 5. Resume | |
| _____ (10 POINTS TOTAL) | | |
| **2. PROFESSIONALISM:** | | |
| | _____ 1. 2-5 entries | |
| | _____ 2. Reflections | |
| | _____ 3. Themes identified | |
| | _____ 4. Relating to Praxis | |
| _____ (20 POINTS TOTAL) | | |
| **3. CONTENT MASTERY:** | | |
| | _____ 1. 2-5 entries | |
| | _____ 2. Reflections | |
| | _____ 3. Discipline/s identified | |
| _____ (20 POINTS TOTAL) | | |
| **4. CLASSROOM ORGANIZATION AND MANAGEMENT:** | | |
| | _____ 1. 2-5 entries | |
| | _____ 2. Reflections | |
| | _____ 3. Style | |
| | _____ 4. Relating to Praxis | |
| _____ (20 POINTS TOTAL) | | |
| **5. PEDAGOGY:** **(Content)** | | |
| | _____ 1. 2-5 entries | |
| | _____ 2. Reflections | |
| | _____ 3. Strategies | |
| **(Student Specific)** | _____ 1. 2-5 entries _____ | |
| | _____ 2. Reflections _____ | |
| | _____ 3. Student Specific | |
| | _____ 4. Relating to Praxis | |
| _____ (20 POINTS TOTAL) | | |
| **6. SUMMARY:** | | |
| | ____ 1. Summarizes portfolio proficiencies | |
| | ____ 2. Persuasive | |
| _____ (10 POINTS TOTAL) | | |

Developed by Dr. Donna J. Cole May 96
Updated 5/97, DJC/RH

# Appendix B

DJC/RH/ma 5/97

Total 50 _____

## PRAXIS INDEX

| | Summary Page | Evidence Page |
|---|---|---|
| **DOMAIN A: Organizing Content Knowledge for Student Learning** | ____ | |
| **Criterion A1:** Becoming familiar with relevant aspects of students' background knowledge and experiences | | _____ |
| **Criterion A2:** Articulating clear learning goals for the lesson that are appropriate to the students | | _____ |
| **Criterion A3:** Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future | | _____ |
| **Criterion A4:** Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate to the students and that are aligned with the goals of the lesson | | _____ |
| **Criterion A5:** Creating or selecting evaluation strategies that are appropriate for the students and that are aligned with the goals of the lesson | | _____ |
| **DOMAIN B: Creating an Environment for Student Learning** | _____ | |
| **Criterion B1:** Creating a climate that promotes fairness | | _____ |
| **Criterion B2:** Establishing and maintaining rapport with students | | _____ |
| **Criterion B3:** Communicating challenging learning expectations to each student | | _____ |
| **Criterion B4:** Establishing and maintaining consistent standards of classroom behavior | | _____ |
| **Criterion B5:** Making the physical environment as safe and conducive to learning as possible | | _____ |
| **DOMAIN C: Teaching for Student Learning** | _____ | |
| **Criterion C1:** Making learning goals and instructional procedures clear to students | | _____ |
| **Criterion C2:** Making content comprehensible to students | | _____ |
| **Criterion C3:** Encouraging students to extend their thinking | | _____ |
| **Criterion C4:** Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands | | _____ |
| **Criterion C5:** Using instructional time effectively | | _____ |
| **DOMAIN D: Teacher Professionalism** | _____ | |
| **Criterion D1:** Reflecting on the extent to which the learning goals were met | | _____ |
| **Criterion D2:** Demonstrating a sense of efficacy | | _____ |
| **Criterion D3:** Building professional relationships with colleagues to share teaching insights and to coordinate learning activities for students | | _____ |
| **Criterion D4:** Communicating with parents or guardians about student learning | _____ | |

# Appendix C

**DOMAIN A**

## Organizing Content Knowledge for Student Learning

Knowledge of the content to be taught underlies all aspects of good instruction. Domain A focuses on how teachers use their understanding of students and subject matter to decide on learning goals; to design or select appropriate activities and instructional materials; to sequence instruction in ways that will help students to meet short- and long-term curricular goals; and to design or select informative evaluation strategies. All of these processes, beginning with the learning goals, must be aligned with each other, and because of the diverse needs represented in any class, each of the processes mentioned must be carried out in ways students bring to class. Therefore, knowledge of relevant information about the students themselves is an integral part of this domain.

Domain A is concerned with how the teacher thinks about the content to be taught. This thinking is evident in how the teacher organizes instruction for the benefit of her or his students.

The primary sources of evidence for the criteria in Domain A are the class profile, instruction profile, and preobservation interview. The classroom observation may also contribute to assessing performance on these criteria.

| | Name of Evidence | Page Number |
|---|---|---|
| **A1:** Becoming familiar with relevant aspects of students' background knowledge and experiences | _____ | ____ |
| **A2:** Articulating clear learning goals for the lesson that are appropriate to the students | _____ | ____ |
| **A3:** Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future | _____ | ____ |
| **A4:** Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate to the students and that are aligned with the goals of the lesson | _____ | ____ |
| **A5:** Creating or selecting evaluation strategies that are appropriate for the students and that are aligned with the goals of the lesson | _____ | ____ |

# Appendix D

# Creating an Environment for Student Learning

Domain B relates to the social and emotional components of learning as prerequisites to academic achievement. Thus, most of the criteria in this domain focus on the human interactions in the classroom, on the connections between teachers and students, and among students. Domain B addresses issues of fairness and rapport, of helping students to believe that they can learn and can meet challenges, of establishing and maintaining constructive standards for behavior in the classroom. It also includes the learning "environment" in the most literal sense--the physical setting in which teaching and learning take place.

A learning environment that provides both emotional and physical safety for students is one in which a broad range of teaching and learning experiences can occur. Teachers must be able to use their knowledge of their students in order to interpret their students' behavior accurately and respond in ways that are appropriate and supportive. When they do so, their interactions with students consistently foster the students' sense of self-esteem. In addition, teachers' efforts to establish a sense of the classroom as a community with clear standards should never be arbitrary; all behavioral standards and teacher-student interactions should be grounded in a sense of respect for students as individuals.

Evidence for the criteria in Domain B will be drawn primarily from the classroom observation; supporting evidence may be drawn from both the pre- and post-observation interviews. The class profile provides contextual information relevant to these criteria.

| | Name of Evidence | Page Number |
|---|---|---|
| **B 1:** Creating a climate that promotes fairness | _____ | ____ |
| **B 2:** Establishing and maintaining rapport with students | _____ | ____ |
| **B 3:** Communicating challenging learning expectations to each student | _____ | ____ |
| **B 4:** Establishing and maintaining consistent standards of classroom behavior | _____ | ____ |
| **B 5:** Making the physical environment as safe and conducive to learning as possible | _____ | ____ |

# Appendix E

# DOMAIN C

## Teaching for Student Learning

This domain focuses on the act of teaching and its overall goal; helping students to connect with the content. As used here, "content" refers to the subject matter of a discipline and may include knowledge, skills, perceptions, and values in any domain: cognitive, social, artistic, physical, and so on. Teachers direct students in the process of establishing individual connections with the content, thereby devising a good "fit" for the content within the framework of the students' knowledge, interests, abilities, cultural backgrounds, and personal backgrounds. At the same time, teachers should help students to move beyond the limits of their current knowledge or understanding. Teachers monitor learning, making certain that students assimilate information accurately and that they understand and can apply what they have learned. Teachers must also be sure that students understand what is expected of them procedurally during the lesson and that class time is used to good purpose.

Most of the evidence for a teacher's performance with respect to these criteria will come from the classroom observation. It may be augmented or illuminated by evidence from the pre- and postobservation interviews.

| | Name of Evidence | Page Number |
|---|---|---|
| **C1:** Making learning goals and instructional procedures clear to students | _____ | ____ |
| **C2:** Making content comprehensible to students | _____ | ____ |
| **C3:** Encouraging students to extend their thinking | _____ | ____ |
| **C4:** Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands | _____ | ____ |
| **C5:** Using instructional time effectively | _____ | ____ |

# Appendix F

## DOMAIN D

## Teacher Professionalism

Teachers must be able to evaluate their own instructional effectiveness in order to plan specific future lessons for particular classes and to improve their teaching over time. They should be able to discuss the degree to which different aspects of a lesson were successful in terms of instructional approaches, student responses, and learning outcomes. Teachers should be able to explain how they will proceed to work toward learning for *all* students. The professional responsibilities of all teachers, including beginning teachers, also include sharing appropriate information with other professionals and with families in ways that support the learning of diverse student populations.

The primary source of evidence for the criteria in Domain D is the postobservation interview.

| | Name of Evidence | Page Number |
|---|---|---|
| **D1:** Reflecting on the extent to which the learning goals were met | _____ | ____ |
| **D2:** Demonstrating a sense of efficacy | _____ | ____ |
| **D3:** Building professional relationships with colleagues to share teaching insights and to coordinate learning activities for students | _____ | ____ |
| **D4:** Communicating with parents or guardians about student learning | _____ | ____ |

# Appendix G

# Certification & Licensure

OEA Leadership Academy August, 1996

## Current Standards

Renewal of Certification
Prior to 9/1/98

**Provisional (4 Year)**

6 semester hours or 18 CEU's or combination; reduced one hour for each year taught

**Conversion to 8 Year**

3 years experience and 30semester hours since issuance or if M.A. is held, M.A.+6 semester hours

**Professional (8 Year)**

12 semester hours or 36 CEU's or combination; reduced one hour for each year taught

**Conversion to Permanent**

5 years experience under 8 years plus M.A.+12 hours earned since issuance of professional

**Permanent**

## FOR CURRENT CERTIFICATE HOLDERS

The new licensure standards take effect 9/1/98. All applicants for new, renewal, and upgrades of provisional, professional and permanent certificates fall under the old law.

All holders of **PROVISIONAL** certificates are allowed a one-time [redacted] upgrade under the old certification standards after 9/1/98, and before 9/2/02.

All holders of **PROFESSIONAL** certificates are allowed a one-time renewal or [redacted] under the old certification standards after 9/1/98, or before 9/2/06.

All holders of **PROFESSIONAL** certificates are allowed a one-time upgrade to a **PERMANENT** certificate through 9/1/03. After that date no one will be eligible for a **permanent certificate.**

There are no permanent licenses.

## New Standards

Renewal of Licenses
After 9/1/98

**Provisional (2 Year)**

Required for induction, may be used for substitute teaching, 3 hours to renew (6-9 hours if lapsed), entry year program and assessment process

**Professional (Upgrade)**

Provisional plus induction program 6 semester hours or 18 CEU's or approved activities (LPDC)

**Professional (5 Year) [first]**

6 semester hours or 18 CEU's or approved activities (LPDC)

**Professional (5 Year) [second]**

M.A. or 30 semester hours of graduate credit; if M.A. already obtained - 6 semester hours or 18 CEU's or approved activities (LPDC)

**Professional (5 Year)**

6 semester hours or 18 CEU's or approved activities (LPDC)

**No Permanent License**





Holders of licenses will always be required to take continuing coursework to maintain their license(s) and tenure

# Transition from Certification to Licensure

**Key Dates** → September 1,1998 effective date of new standards → September 2, 2002 Last date 4-year provisional certificates will be issued or renewed. → September 1, 2003 Last date permanent certificates will be issued. → September 2, 2006 Last date 8-year professional certificates will be renewed.

| | | | | |
|---|---|---|---|---|
| ***If you hold a provisional certificate, prior to September 1, 1998, you can ...*** | Renew once after September 1, 1998 under the current standards, until September 2, 2002... | → | Then change to the 5-year license when that certificate expires. | → Continue on a 5-year renewal cycle for the rest of your career. |
| | Upgrade to a professional 8-year certificate under the current standards until September 2, 2002... | → | Then change to the 5-year license when that certificate expires | → Continue on a 5-year renewal cycle for the rest of your career. |
| ***If you hold a professional certificate, prior to September 1, 1998, you can...*** | Renew once after September 1, 1998 under the current standards, until September 2, 2006... | → | Then change to the 5-year license when that certificate expires.* | → Continue on a 5-year renewal cycle for the rest of your career. |
| | Upgrade to a permanent certificate under the current standards until September 1, 2003... | → | Then work under the permanent certificate for the rest of your career. | → |
| ***If you hold a permanent certificate, you can...*** → | Continue working under the permanent certificate the rest of your career. | → | | |

**Note:** The Master's Degree requirement DOES NOT APPLY to anyone who holds certification prior to September 2, 2002. Persons certificated under prior standards maintain their subject areas and grade levels under the five-year professional license.

*For example, if an 8-year professional certificate is renewed in 2006, it will be valid until 2014, and then would be converted to a 5-year professional license.

Created by the Ohio Department of Education

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

# REPRODUCTION RELEASE

(Specific Document)

## I. DOCUMENT IDENTIFICATION:

Title: Documentation of Teacher Education Field Experience of Professional Year Interns Via Electronic Portfolios

Author(s): Dr. Donna J. Cole, Dr. Charles W. Ryan

Corporate Source: Wright State University
Dayton, OH 45435

Publication Date: February 13-17

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

☐ Check here
**For Level 1 Release:**
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) *and* paper copy.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

The sample sticker shown below will be affixed to all Level 2 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2

☐ Check here
**For Level 2 Release:**
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but *not* in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

*"I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."*

***Sign here→ please***

Signature: Charles W Ryan

Printed Name/Position/Title: Charles W. Ryan, Professor of Education

Organization/Address:
373 Millett Hall
Wright State University
Dayton, OH 45435

Telephone: (937)775-3286

FAX: (937)775-2405

E-Mail Address: CRYAN@WRIGHT.EDU

Date: 3/11/98

(over)

## III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, *or*, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

## IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

## V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

[redacted]

Lois Lipson
Indexer/Abstractor
One DuPont Circle Ste. 610
Washington, D.C. 20036

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

**ERIC Processing and Reference Facility**
**1100 West Street, 2d Floor**
**Laurel, Maryland 20707-3598**

**Telephone: 301-497-4080**
**Toll Free: 800-799-3742**
**FAX: 301-953-0263**
**e-mail: ericfac@inet.ed.gov**
**WWW: http://ericfac.piccard.csc.com**