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ABSTRACT

A panel discussion was held on the Student Information System (SIS) established at Ohio State University. The SIS was designed to: (1) document student experiences; (2) diagnose student progress in programs in order to fulfill general student advising and counseling functions; (3) collect data on students and programs for evaluation purposes; and (4) research the nature of teacher education and development and other professional personnel programs. Panel presentations included: (1) "Overview: A System for Documenting and Assessing the Experience of Pre/Inservice Teachers" (Russell J. Spillman); (2) "The History, Purposes, and Conceptualization of the Student Information System" (Nancy L. Zimpher); (3) "Implementation of the Student Information System" (William E. Loadman); (4) "A Focused Evaluation of the Student Information System" (Ann L. Schreck); (5) "Improvement and Use of the Student Information System Teacher Candidate Profile Instrument" (Penelope A. Reighart, Zelda J. Holcomb); (6)"'What They Bring with Them'--Formative Dimensions of the Student Information System" (Peter S. Lemish); and (7) "Peering into the Future of the Student Information System" (William E. Loadman). (JD)

A SYSTEM FOR ASSESSING AND DOCUMENTING THE EXPERIENCE OF PRE/INSERVICE TEACHERS

1983 UPDATE

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

A panel presentation at the annual meeting of the American Association of Colleges for Teacher Education, Detroit, February 1983.

CONTENTS

I. A SYSTEM FOR DOCUMENTING AND ASSESSING THE EXPERIENCE OF PRE/INSERVICE TEACHERS

An Overview

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Within the last three years, the College of Education at The Ohio State University has been working on the creation and implementation of a system for documenting and assessing the experiences and abilities of its teacher candidates, toward the improvement of its teacher education programs. Initially we created this system because we were dissatisfied with what has become the accepted means of program evaluation in teacher education; that is, through follow-up studies. While we will address the limitations of follow-up studies later in this presentation, our general criticism of this single vehicle for program evaluation is that the results of follow-up studies do not provide conclusive information on which to base continued development and improvement of teacher education programs. Further, their summative nature does not provide the kind of formative information necessary for an effective and responsive teacher education program.

Our view of program development and improvement requires that developers engage in the ongoing process of "developmental inquiry" (Sanders, 1981), which provides for the generation of hypotheses through a data collection process that informs further development of programs. Developmental inquiry requires a documentation and assessment system that can provide a rich contextual accounting of both teacher candidates and programs. Our intent is

first to determine what is happening in our programs concurrent with determining what should happen. With this perspective in mind we have designed the assessment and documentation system referred to herein as the Student Information System (SIS).

At this time our efforts continue to focus on implementation at the program area level and in those courses (or experiences) that are common for all of our teacher candidates. Instrumentation has been developed, piloted and refined for several of these general professional experiences, and in several of the program areas.

The purpose of this presentation is to review the purposes, theoretical framework and component parts of the system; to explicate data results from certain of the instruments that have been piloted and revised and one of the qualitative data collection efforts; to summarize the issues related to the totality of the implementation process; and to present issues associated with the near and long-term future of SIS. These presentations will then be critiqued and discussed by outside evaluators presenting on this panel.

SIS has four basic purposes. They are:

1. to document student experience for accountability purposes;
2. to diagnose student progress in programs in order to fulfill general student advising and counseling functions;
3. to collect data about our students and programs for purposes of evaluation of both graduates and programs, toward program improvements, and;
4. to research the nature of teacher education and teacher development and other professional personnel programs.

In order to achieve these purposes we have designed a system that may be described, briefly, as follows. SIS is multi-dimensional, including the collection of data at multiple points in the professional education program

using multiple data collection vehicles. The data will be collected at various "levels" as follows: basic demographic data about students and programs; academic data such as transcript information and entry test scores; performance data as collected through qualitative and quantitative measures, including standardized measures; and self-reported data and data collected in various campus and field settings through ethnographic techniques. Data collection will commence as the student enters the university and continue throughout the early years of the graduate's employment. Participants in this system will include students, faculty members, cooperating teachers in field sites and academic and career counselors.

We have been involved in the development of the conceptual bases and the design of the system for documenting and assessing teacher candidates and programs for three years. A year ago, we hosted a national conference on the improvement of teacher education programs. At that time we presented this system to both a pre-conference of selected critics as well as to the general conference participants for their review and comments. Last year we also were involved in negotiating the possible use of SIS with various program areas in the College. This process continues to involve our introducing the system, negotiating its use, and refining the system on the basis of program directors' comments and experience using the system.

II. The History, Purposes and Conceptualization of the Student Information System

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The purpose of this presentation is four-fold: 1) to present a history and context for the development of SIS; 2) to relate a set of assumptions and a conceptualization about program development that support and explain the purposes of the system; 3) to explicate the purposes of the system; and 4) to describe the component parts (or, data matrix) of SIS.

History and Context

Like most issues that evolve in a college of education, the creation of the Student Information System has been stimulated by events and forces both external and internal to the OSU College of Education. There is an increasing public demand for an improved educational system. A significant portion of this demand is for more highly qualified teachers (Time Magazine, "Help! Teachers Can't Teach"). State legislatures are responding to these public pressures by mandating new standards for teacher education (e.g., State Standards for Teacher Education in Ohio, 1975), including responsibility to develop and implement evaluation--accountability procedures. Currently, more and more school districts are requiring that teachers demonstrate their competencies through some sort of test, e.g., the National Teacher Examination. Yet the solution to determining effective teaching seems to require a more thoughtful approach. Rather than accede to the pressures reflected in the current agendas of various public interest groups, the College of Education at The Ohio State University is undertaking a major research and development effort that attempts to temper public demand with its knowledge of recent

research and developments in this area, matching these efforts with the mission and assumptions inherent in this College.

We will parallel external forces described above with some events of the last decade in the history of our College. In keeping with national movements to install efforts to evaluate teacher candidates after graduation, the College created a follow-up system, beginning in 1976. This system is now in full operation, including quantitative evaluation and on-site observations of graduates during the first and third years of practice. Even with this effort, however, we have often asked ourselves, "so what," after the timeconsuming research has been finished. Katz et al. (1981) have illuminated this area by pinpointing the persistent problems of follow-up studies that will never vanish--difficulties in active faculty involvement in program change, difficulties in interpretation due to the feed-forward issue. Our "so what" feeling, however, is prompted by a larger set of issues. It is these issues which have prompted us to begin dismantling our current follow-up system and replace it with a more conceptually valid and reliable system for the evaluation and development of programs here at OSU. It is these issues to which we now turn.

Existing designs for the conduct of follow-up studies have apparently been built on a set of assumptions as follows:

1. Whatever skills a teacher exhibits arise as a result of his/her teacher training.
2. It is possible to assess a teacher's competence without baseline data: that is, without knowing anything at all about the teacher's preservice experiences.
3. It is possible to assess a teacher's competence based upon teacher, self report and a short omnibus post-graduation observation of the teacher at work (Green and Stone, 1977).

According to the most recent evidence available (Medley, 1977), one of the most serious conceptual problems is that the design does not provide a link between knowledge, skills, attitudes, or values (K.S.A.V.'s) learned during the training experience and those same K.S.A.V.'s which are tapped after the graduate completes his or her schooling. That is, if there is an impact to the training experience (and if there is not, then we are all in serious trouble), then a design should permit a theoretical link between preservice skills and inservice performance to be proven.

In addition to the absence of a strong feedback loop for follow-up studies, there are other internal issues which trouble program developers. Teacher candidates continue to arrive at the culminating experience, student teaching, with undiagnosed and unremediated problems. Ethnographic studies conducted by deVoss, Zimpher, and Noth (1978) during student teaching reveal that students have strengths and weaknesses that appear unrelated to the preceding course experiences. Intensive studies of first year teachers suggest that graduates of this and other teacher training programs continue to experience great frustrations in classroom management, and other problems of teaching and learning. Follow-up studies itemize a long list of skills beginning teachers say they never acquired in their program. Paradoxically, these skills are documented components of existing course requirements. All these issues suggest that survival techniques for beginning teachers continue to be self-acquired and not attributable to preparation programs.

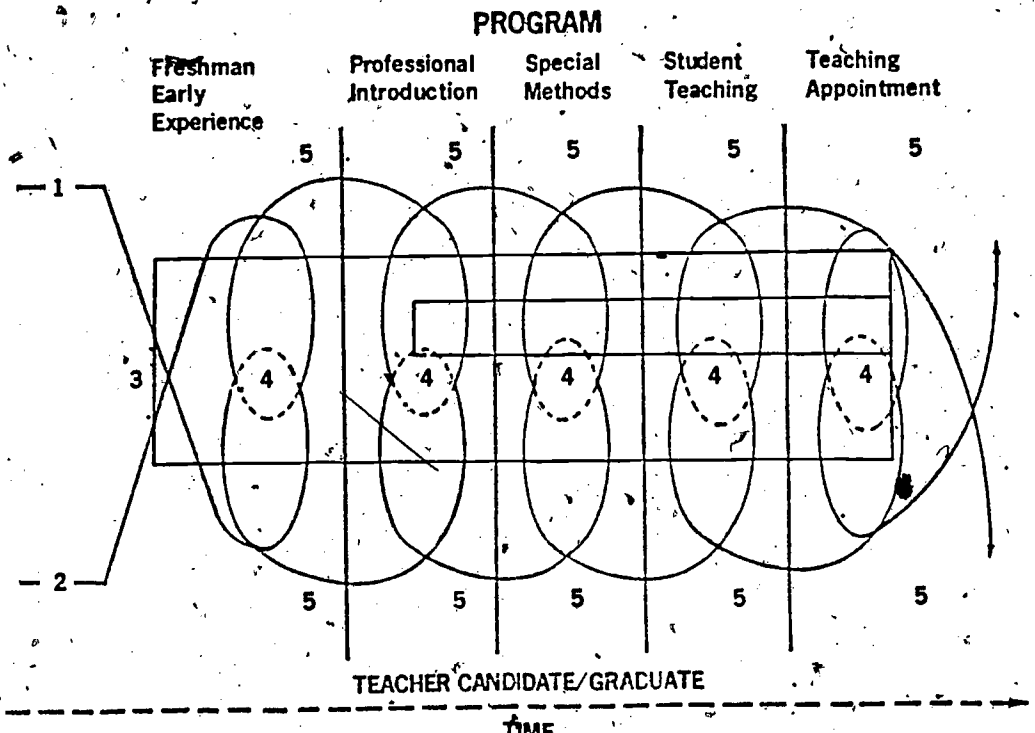
Although each of these forces, internal and external, appears to represent isolated strands in the history of our program, their confluence results when attempting to measure the d[redacted]nce of our graduates compared to teacher candidates nationally, or in light of the apparent needs and frustrations of first year teachers. It is out of this bed of anomalies that the College of

Education Student Information System has evolved, not out of any single event, but out of a study of multiple causes and needs for the obvious improvement of teacher candidates and teacher education programs.

Conceptual Framework

The alternative approach which we have proposed for the evaluation and development of teacher education students and programs focuses upon the following general questions: In what ways do teachers develop during the period of their participation in a particular teacher education program? Are our teacher-graduates qualified professional educators? How does this program facilitate their development? To answer these questions we have implemented an approach which is based upon fundamentally different understandings of, first, the relationship between teacher education students and programs and, second, the role and process of evaluation and development in teacher education programs.

There is a complex, interactive relationship between students and programs. As they develop, both are independent yet they are mutually constitutive and reflexive of one another. The following diagram illustrates this interactive view of the student-program relationship:



At Point 1, the teacher candidate enters the program with pre-established formative knowledge, skills, attitudes, and values as well as perceptions about self and self as teacher. As the teacher candidate moves through the program, along the bottom wave in the diagram, the personal and professional development that takes place is a refining extension or addition to these dimensions of a teacher candidate's life.

At Point 2, the program, like the teacher candidate, is recognized to be a developing entity. This is noted in the diagram as the top wave. The program's history accounts in good part for the expectations and content represented in the instructional activities facilitated later by the college instructor.

At Point 3, the program and candidate first meet. Hopefully, our programs include and are affected by the entry characteristics of our teacher candidates. Of particular importance is knowledge of formative dimensions, or the teacher candidate's knowledge, skills, attitudes, and values prior to his/her entering the program.

At Point 4, shown as a broken line, dynamic forms of interaction take place as the student's learning experiences evolve in the program (n.b. a three dimensional diagram would show the two wave lines and the interaction zone oscillating). The interrelationship of the teacher candidate and the program is dynamic and constantly in flux. The degree of confluence depends to a significant degree upon such variables as the teacher candidate, the instructor, the activities as designed, implemented, and experienced, the context, and the nature of interaction. Much of this interaction, in the form of activities and teacher candidate performance, is observable. Here a three-way analysis by, for example, the teacher candidate, the college instructor, and the cooperating teacher, should provide us with a multidimensional view of the experience. This is reflected in the diagram in the outer rectangle. In addition, we know that much of the impact of this experience is "private" and may only be revealed through reflective, narrative accounts and analysis. The area in the diagram outside the outer rectangle represents this "private" zone.

At Point 5, the candidate and the program proceed together in the professional preparation sequence. As experiences in the program impact upon the teacher candidate in various ways, and vice versa, they become the formative dimensions for the teacher candidate and the program. It is through this process that growth and development take place for both students and the program.

Existing models of teacher education explicate program content and evaluate teacher-graduates in terms of predetermined, observable, and "measurable" skills, competencies, or objectives. This approach is represented within the inner rectangle in the above diagram. However, the

complex, interactive nature of the student and program development process requires a more inclusive form of analysis, one capable of documenting the ongoing nature and the complexity of the professional preparation experience. Thus, the area for documentation is located both within and outside the outer rectangle in the above diagram.

In our view, evaluation should result in a series of interpretive judgments made by faculty members about the appropriateness and value of students' experiences and learnings. Viewed in this manner, evaluation has a critical role in the program improvement process. Indeed, these judgments have a formative role since they should assist faculty members in determining whether alterations are needed to strengthen the program.. However, in order to make informed judgments, faculty members must have access to a rich data source. Therefore, a comprehensive documentation system is required; one capable of capturing the complex nature of both student and program development. Thus, evaluation is the critical, intermediary link in moving from data to proposals for programmatic improvement.

The alternative approach to program evaluation and development which we are implementing at The Ohio State University uses as its theoretical bases the analyses outlined above and the practicentric-developmental form of inquiry proposed by Bronfenbrenner (1979), Dunn (1971), and Sanders (1981). This approach consists of three general components:

1) Documentation. The gathering and analysis of data on students and and programs.

2) Evaluation. Interpretive judgments made by faculty members on the appropriateness and value of students' experiences and learnings.

3) Program Adaptation. Proposal, selection, and implementation of changes in the program by the faculty.

The documentation component performs the essential function of providing faculty members with the data necessary for them to engage in the program improvement process. Given this important role, as well as its comprehensive approach to the study of teacher candidates and graduates, we feel that it merits more detailed elaboration.

SIS rests upon the following design principles, which, when examined in the context of its theoretical bases, purposes, and the expectations placed upon it, give it a unique structure.

1. The system must stress description as well as assessment. It is crucial that a student's experiences be documented (i.e., described) and assessed before any evaluations are made about his/her professional qualification.
2. SIS must include both multiple forms of and triangulated views of data inputs and analyses.
3. SIS must provide, as its primary source, data related to the teacher-candidate's actual experiences/performances, juxtaposed to a description of what was supposed to happen.
4. SIS must contain both formative and summative elements. Positive change in either student or program must result from frequent diagnostic assessments. The aim of SIS is to facilitate change by providing a rich source of data and analysis, rather than produce results from single, judgmental, all-or-none evalautions.
5. SIS must provide for sequential, cumulative, and longitudinal data collection, analysis, and usage. Thus, information gathered through SIS at "time A" will hopefully influence at "time B" by tempering and clarifying the student or program profile.

6. SIS must have cross-group validity.

7. SIS must stress simplicity and manageability. Its findings must be understandable and interpretable by college instructors, public school teachers, teacher candidates, counselors, and legislators.

8. SIS must provide for maximum student input.

9. SIS must be held to be legally responsible. Its design and usage should insure that our students receive clear direction on their right to participate in the system, feedback on the handling and processing of the data, and knowledge of the final disposition of the findings.

System Purposes

SIS has the following four basic purposes:

1. To collect data about our students and programs for use in the evaluation of both graduates and programs;

2. To provide data for use in student advising, counseling, and remediation;

3. To provide a data source for research on the nature and the development of teacher education students and programs as well as other professional education personnel programs;

4. To document student experiences for accountability and accreditation purposes.

System Description

SIS assumes a multi-dimensional, cumulative view of the data to be collected. The collection of data takes place at multiple points in the professional education program using multiple data collection vehicles. Participants/data sources in this system include students, faculty members, cooperating teachers in field sites as well as academic and career counselors.

The data will be collected at various "levels" as follows: basic demographic data about students and program; academic data such as transcript information and test scores; performance data as collected through qualitative and quantitative measures, including standardized measures; self-reported data; data collected in various campus and field settings through ethnographic techniques; and program history and development data.

This system requires the entry of data at various points in the teacher education program, from admission to the university, through the first years of the candidate's teaching position. These points are referred to as the "Profile Progression." There are four component areas and each data entry point is explicated by certain types of data described below and is illustrated in the attached Data Matrix.

The data included in Component I (Descriptors) of SIS are at the most quantitative and descriptive level. This component presents data typically recorded on official student transcripts; a record of the student's field and clinical experiences, to include the number of contact hours in field and clinical settings; a demographic, curricular description of field sites (urban/suburban, open-spaced/traditional, mastery learning/informal education, etc.); career decision data; and psychological data.

Other data included in Component I might be the student's test history, from early administration of ACT/SAT tests, to university math and English placement tests, and College administration of the National Teacher Examination or another standardized test. Particularly in regard to the display of standardized test scores, such records will always be displayed in light of other academic measures, such as grades and class standing, and also in relation to more triangulated and qualitative data generated in Components II, III, and IV described below. In summary, Component I includes demographic, achievement, experience, career decision, and psychological data.

Component II (Assessment) contains all the assessment instruments. They are designed to give a longitudinal picture of selected performance capabilities for each teacher candidate. That is, certain kinds of questions are asked at the freshman, sophomore, junior, senior and postgraduate level in order to determine when a student acquired a certain skill. All assessments are gathered through the following method: only situations where at least three persons can assess a performance are used; further, only persons who are intimately associated with the teacher candidate complete an assessment. Finally, all the completed assessments are triangulated after assessment. The interested parties gather together to discuss their ratings. Ratings are not changed as a result of this conference, but rather the outcome of the conference is documented for inclusion in the system's Component III. Thus, although each instrument looks simplistic, the accumulation of sets of judgments over a teacher candidate's career will give an accurate picture of his/her performance.

Component III (Narrative) consists of descriptive and analytical materials written by the teacher candidate, the adviser, college instructors/supervisors, and cooperating teachers. These data will be gathered at appropriate points throughout the teacher candidate's participation in the program. These narrative materials complement the data available in Components I and II. As descriptive, analytical and reflective accounts, these materials should be a rich source of information about the nature of the teacher candidate's experiences and developing pedagogical style.

In Component IV (Context), teacher candidates' experiences and development are to be interpreted with due consideration given to the experiential environment. Therefore, as part of the assessment procedure, teacher candidates, college instructors, and cooperating teachers and others involved with

teacher candidates provide descriptive statements about the context in which the experience takes place. The "experiential environment" includes information about the settings in which the teacher education program occurs, both on campus and in the "laboratory" of local schools and agencies used as field sites.

The data accumulated as a result of this documenting system will be assembled into portraits or profiles of the students, individually or as a sample, and the program. Multiple forms of qualitative and quantitative techniques for analysis of these data will be utilized. Analysis and presentation of findings will be directly related to the purposes for producing the analysis (i.e., use for program evaluation is significantly different from use for student advisement or for accreditation documentation).

Summary

A description of SIS would not be complete without an explanation of the process and issues related to the implementation of the system. Also, we offer in this presentation specific data gathering efforts, along with an analysis of those measures and their subsequent revision. Illustrations will be offered for Components II and III of the system. We will conclude by reflecting on the future of SIS at our institution and its contribution to the national effort to improve teacher preparation.

DATA MATRIX

STUDENT INFORMATION SYSTEM
College of Education
The Ohio State University

PROFILE PROGRESSION	COMPONENTS			
	I. Descriptors (factual descriptions including demographic, achievement, experience, career decision and psychological data)	II. Assessment (multiple perspective judgment by expressed criteria of the experience)	III. Narrative (multiple perspective commentary and analysis of experiences)	IV. Context (descriptions which will assist user in interpreting environment of experiences)
Pre-Professional Data	Demographic data (1b) from Education Student Data Base	High School Percentile ACT Composite Score GPA Major Study GPA Cumulative (1a) NTE Commons Percentile NTE Area Exam Percentile NTE Composite Percentile Academic transcript (1c)		
Professional Preparation FEEP	Career Development (2) Checklist Commitment Sheets (3) (Pre and Post) Bioinventory (4) Myers-Briggs (5) PRF Course Description Field Placement	*Exploration Profile (TCP) (6) †Academic Assessment Checklist Mid quarter evaluation (7) End quarter evaluation (8)	†Personal Growth Plan Experience Report (9) Form (ERF)	
P.I. Education 450/451	Course Description Field Placement	Teacher Candidate Profile (TCP) (10)	Critical Event (11) Forms Conference Report (12) Forms	
Special Methods	Course Description Field Placement	TCP's in P.E. TCP's in E & MC TCP's in Excep.	*Critical Event Forms in P.E.	
Foundations	Course Description Field Placement			
Content Specialty Courses	Course Description Field Placement			
Student Teaching	Field Placement	TCP's in P.E. (13) TCP's in E & MC TCP's in Excep (13)		
Post Graduation	Follow-Up (14) Demographics Follow-Up Teacher (15) Observation Form Teacher Interview (16) Form			

* Currently being modified
† Being created

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III. Implementation of the Student Information System

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Introduction

The student information system (SIS) at The Ohio State University's College of Education has been formulated over the past three years. During that time efforts have been initiated to implement various pieces of the system. This paper will: a) identify what the current literature suggests about implementation of such a system; b) describe what has been done to date with this system; and c) attempt to examine issues, concerns and status of the implementation.

When one searches the literature for information regarding the implementation of an evaluation system, several important conclusions can be drawn rather rapidly. First, the literature is replete with discussions regarding the implementation process. However, there is limited empirical research conducted on the process. The second major finding in the literature is that the discussions on implementation tend to fall into two broad categories. The first category can be characterized as methodological or technical concerns. There are extensive discussions on topics such as sampling, variable selection, instrument construction, evaluation designs, data analyses, etc. The second category can be characterized as interpersonal or interactional concerns. Here the literature is surprisingly devoid of information except for an occasional admonishment that the evaluator needs to be aware of contextual circumstances or local political situations. There are sources which selectively identify important elements which fall under the interpersonal dimension. Some of these elements would include such things as securing

administrative support, identifying and interacting with key actors, broadening the base of system ownership, devising and using functional feedback loops, understanding and clarifying values, understanding and working with the local political circumstances, and obtaining input on system development from persons likely to be affected by the system, to name a few. However, the literature reflects a paucity of sources dealing with the processes and procedures one would use to address and/or implement activities associated with these important elements. There is no parallelism between the vast literature sources specifying procedures, down to the minutest detail for methodological procedures (e.g., sampling), and procedures or processes needed or required to build in the interpersonal dimension, e.g., system ownership or identification and interaction with key actors.

Occasionally someone suggests that more research needs to be initiated in this area. It is quite clear from an implementation standpoint that the "how to" aspects are well covered for methodological concerns but sorely lacking for interpersonal concerns. Each must be present in substantial amounts if the implementation is to be successful. If one or both of these characteristics are missing, the implementation will meet with substantial difficulty and the probability of ultimate success or adaption of the system is drastically reduced.

Why is it that such little attention has been given to this topic in the literature? Is it because we assume that the evaluator will know how to deal in the interpersonal arena and further will be sensitive to the nuances of the local situation? Is it because it is an extremely difficult arena in which to work and generalized principles are difficult to identify and each problem is situation specific? Is it because good rigorous research in this arena is difficult; and no one wants to get swallowed in a morass of complex and

constantly shifting problem focus founded on a bed of loose theory? Perhaps, the topic is not extremely important. More than likely each of the above points contributes to some extent to the current situation. What is important is not that we clearly isolate the causes but rather that we begin to examine the implementation process in more detail. Following those inquiries we have a strong need to discuss, debate and write about the interpersonal processes involved in the implementation of an evaluation system. This paper is an effort in this regard.

Literature Review

A substantial amount of evaluation activity has occurred in the context of education. The effectiveness of evaluation efforts within the more specialized context of higher education has at best been mixed. Stufflebeam (1982) cautions on the difficulty in doing evaluation in higher education. He is not alone in issuing his warning as the results of many evaluations and evaluators will readily attest. Some of the possible reasons for this relatively limited success can be attributed to the limited sophistication and development of evaluation theory and methodology. Substantial progress has been made in this regard during the last decade. This is particularly true if one examines the literature for methodological developments. However, one particular aspect of evaluation has received limited attention. That aspect is the implementation of an evaluation system. Guba and Stufflebeam (1970) identified the need for research on the implementation process and more pointedly on the weak understanding and limited knowledge we possess on the interpersonal aspects of evaluation. During the decade of the seventies, little conceptual writing and almost no empirical research were conducted and published in this area. Stufflebeam et al. (1981) repeat these concerns regarding the need to address the implementation of evaluation. This topic remains an unresolved issue.

During the same time frame, other writers were busy conceptualizing evaluation theory, and specific methodology. In addition there was a substantial borrowing of methodology from traditional inquiry orientations. As a result there are substantial numbers of references dealing with some of the more mechanical aspects of evaluation. Textbooks and other writings offer conceptual and applied discussions of such topics as sampling, evaluation design, evaluation theory, evaluation models, methods of data analysis, sources of data, selection of variables, instrument construction, and reporting of data. Most references published during this period deal with one or more of these topics. However, there are few references which deal in any detail with the issue of implementation of these topics. This is particularly true when one considers the interpersonal dimension necessary to successfully implement an evaluation. Those references which do address these issues are presented below.

Weiss (1972) devotes a small section of her book (approximately eight pages) to interpersonal aspects of evaluation and even offers a few suggestions on how to deal with these issues. She follows this line of thought as she counsels on the political dimensions of program evaluation (Weiss, 1975). This conceptual article, however, offers little assistance on implementation beyond sensitizing the evaluator to these key issues. Her major points include the notions that evaluation is developed, implemented and reported in a political environment and further that evaluation is ultimately a political stance.

Dornbusch and Scott (1975) are sensitized to this issue and discuss at length the relationship between evaluation, authority and productivity within an organization. While their discussion of interpersonal interactions is primarily circumscribed within the context of administrative control, they do

identify many of the key concepts which transcend the interpersonal dimensions of the evaluation process.

Most writers provide only passing reference to the interpersonal dimensions of implementing evaluation systems and devote an occasional paragraph to the interpersonal issues, e.g., Rossi and Freeman (1982), Cronbach et al. (1980), Stufflebeam et al. (1971). Rossi and Freeman, for example, address the issues of politics and ethics.

The concept of ownership (Borich, 1982) is key to the implementation of any evaluation system. It is necessary for the key actors and persons most directly involved in the evaluation effort to feel part of and have a sense of belonging to the effort. Otherwise the effort is likely to be met with disinterest, passive resistance or possibly even sabotage. Certainly this ownership must be felt at the utilization of results stage for the process to be successfully implemented. Clearly the issue remains as to how to effectively build ownership.

It is interesting to note that Stufflebeam and Webster (1980) characterize alternative approaches to evaluation as a) value oriented (accreditation certification); b) management information systems; and c) experimental research activities. Similarities and differences in both purposes and practices are identified in their writings. The ramifications of these different approaches have obvious and sometimes very subtle ramifications with respect to implementation.

A more general and often methodological orientation to the implementation of selected elements of an evaluation can be found in recent literature. Udinsky, Osterlind and Lynch (1981) discuss the implementation of an evaluation system from the following perspectives: problems of establishment, problems of administration, utilization of results, methodological considera-

tions, and standards and ethics. House (1980) introduces the notion of fairness and describes at length seven major elements in this doctrine. Broskowski and Driscoll (1978) comment on the need to understand and use principles of organizational structure when working on program evaluation. This perspective is highly reflective of an administrative science discipline.

If one goes slightly beyond the field of evaluation and probes the general area of implementation there is a very interesting discussion by Berman and McLaughlin (1978) on research they conducted on implementing and sustaining innovations within an educational context. A definite parallel can be drawn between the principles and mechanisms delineated by these authors as important for achieving success in implementing an innovative educational program and implementing an evaluation system. A highlighting of these principles, strategies and research findings are presented below.

KEY INGREDIENTS FOR SUCCESS

1. organizational policy instruments need to be in place or developed in concert with the implementation
2. key actors are critical to the process and must be involved
3. strong leadership is essential for success
4. ambitious and demanding innovations promoted change and continuation
5. there is a definite need for clarity of goals and precepts
6. a step by step sequence of activities is very important
7. local ownership of effort needs to be developed
8. the environment needs to be supportive of the effort

In concert with the eight key ingredients, they also identified a number of strategies which were associated with "successful" projects. A listing of these strategies is presented below.

STRATEGIES ASSOCIATED WITH SUCCESS

1. strategies must be practical and applied in a cohesive and organized fashion
2. there needs to be concrete, specific and ongoing teaming of people doing the implementation to develop staff involvement and mutual adaptation
3. there needs to be direct assistance to users that is both relevant and practical
4. there needs to be direct and ongoing observation of activities
5. there needs to be regular meetings of staff dealing with substantive rather than administrative or routine matters
6. there is need for user participation in decision making--there is a strong relationship between participation and success
7. there needs to be local involvement in materials development
8. there needs to be direct administrative participation in the effort

On the other side of the coin, Berman and McLaughlin isolated several strategies which consistently did not result in success on implementation. These unsuccessful strategies are presented below.

UNSUCCESSFUL STRATEGIES

1. use of outside consultants
2. packaged management plans
3. one shot preimplementation training
4. pay for participant training
5. formal evaluations
6. comprehensive projects

Out of this extensive research effort and beyond the successful and unsuccessful strategies they identified there were four generalized implications. These implications are:

GENERAL IMPLICATIONS FOR SUCCESSFUL IMPLEMENTATION

1. be realistic in terms of time necessary to implement and the potential effect of impact
2. attention is needed at all stages of implementation
3. assistance is needed on implementation
   a. system focused
   b. continuity
   c. practitioner based
   d. process oriented
4. efforts need to be made to improve the skill level of actors to manage implementation

The overwhelming conclusion that one has as a result of both reviewing the available literature as well as initiating the implementation of an evaluation system is that the future success of the system is constrained more by the quality of the interpersonal/interactional dimension than by the methodological/technical dimensions. At this juncture, there is sufficient and adequate methodology to carry the system. The more tenuous, fragile and potentially volatile aspects of the system are the interpersonal/interactional. Unfortunately, this liability is discussed in limited detail in the literature.

Identification of Key Implementation Elements

Given the information available in the literature and the need to begin implementing an evaluation system, an effort was made to identify as many of the important and relevant elements as possible. Following this identification, the elements were arbitrarily classified into one of three categories. Each issue was placed in either an administrative, methodological or interpersonal category. A given element may fall into more than one category but for brevity it was listed in only one. Aa can be readily seen in Table 1,

there are substantial numbers of elements listed under each category. When viewed from this perspective, the implementation task appears to be formidable. It is surprising that so little literature is allocated to such an important topic.

Table 1

Categorization of Issues Involved in Implementation

Methodological/ Procedural	Interpersonal Interaction	Administrative
1) sampling	1) ownership and involvement	1) policy examination development
2) instrument construction	2) anxiety	2) staffing
3) evaluation design	3) organization support	3) administrative support
4) sources of data	4) variable selection	4) fiscal support
5) audience	5) values	5) resource support (space, equipment)
6) research	6) criteria setting	6) user guidelines
7) data storage and retrieval	7) feedback loop	7) use of data
	8) receptivity	8) agreements/contracts
	9) leadership	9) roles and functions
	10) competence	10) allocation of resources
	11) visibility	11) costs
	12) identification of key actors	12) standards
	13) politics	13) concern for disruption
	14) turf	14) planning
	15) organizational awareness	15) management
	16) appraising, judging	16) practicality
	17) goal clarity	
	18) task selection	
	19) access to data sources	
	20) ethics	
	21) conflict of interest	
	22) design agreement	
	23) timing	
	24) utilization	
	25) communication	
	26) personality differences	
	27) interests	
	28) changes in status quo	
	29) status rivalry	

The writings in the literature reflect primary emphasis upon the methodological/procedural and secondary emphasis upon the administrative. The interpersonal dimension comes in a distant third. However, Table 1 reflects more elements in the interpersonal category than the other two categories combined. Realizing that the classification system is very crude and while one may quarrel with the classification of an element the overall message is clear. If we are to be successful in implementing a program evaluation system we must begin to pay more focused attention to the interpersonal dimensions. Further, one could easily add elements to each of the three categories, i.e., the categories are not exhaustive and only representative of possible entries. How has this delineation been of assistance to this effort at implementing an evaluation system?

Implementation of the SIS System

This paper will attempt to identify a number of specific activities and/or strategies that have been initiated at The Ohio State University College of Education to begin the implementation process of the Student Information System. This system, as can be seen in its original four purposes and reflected in the original data collection matrix, is exceedingly complex. The integration, coordination and cooperation necessary for this system to function is enormous. If one begins to think about the magnitude of the task it can very easily paralyze any potential movement. Therefore a decision was made to move ahead realizing the potential dangers of this decision.

The next section will identify general procedures which will be followed by a chart on each of the three categories identified in Table 1 (methodological, interpersonal, and administrative). Each chart lists the elements, one or more activities focused on the element, the status of the activities and the strategy or principle used in addressing the element.

Chart 1

Methodological Elements, Activities and Strategies

Element	Activity	Status	Strategy
1. Sampling	Selection of appropriate method for follow up studies, narrative data.	In place	Use technical skills to decide most appropriate techniques to fit overall system; keep procedures realistic and reasonable.
2. Instrument construction or selection	Create or select instruments with input from key actors for content. Use instruments that are appropriate for task. Determine instrument quality.	In place In process	Get key actor input into instruments which affect their functioning; use methodological skills to design and test instrument; build in ownership of key actors.
3. Evaluation design	Work with key actors to generate appropriate evaluation designs within general parameters of overall system.	In place In process	Build key actors into decision process; use methodological skills to generate process/procedures and negotiate with key actors; keep system simple and useable.
4. Sources of data	Identify logical sources of data and negotiate these with key actors.	In place In process	Keep data requests realistic and timely, be concerned about over-using data sources; be sensitive to other users' requests for data.
5. Audience	Identify logical as well as direct audience for feedback of data or data reports. Negotiate audiences for data reports with actors affected by the data.	In place In process	Be sensitive to utilization of data and using the data appropriately. Make it known, in advance, how the data is to be used and don't violate such agreements as may be negotiated. Make sure the data gets used and have a plan for its use. Have a regular pattern of disseminating data.
6. Research	Encourage research to be conducted on the system and the data base while maintaining professional ethics and confidentiality.	In place	Do personal research on pieces of the system; encourage master and doctoral level students to conduct research on the system; secure external support to conduct research on various aspects of the system; disseminate the research findings.

Element	Activity	Status	Strategy
7. Data storage and retrieval	Have a systematic plan developed to collect, maintain and retrieve the data in useable, flexible fashion. Technical skills and resources need to be allocated to this endeavor.	In place	Use computer capabilities; develop a short term and long term plan. Short term plan will be for simple data runs to be generated to produce immediate feedback. The long term plan is to develop more sophisticated methods, procedures and format of reporting. Show immediate pay off of system.
8. Dissemination	Plan for systematic and consistent dissemination efforts to appropriate audiences. Keep reports practical, useable and short with available back up documentation.	In process	A plan for dissemination needs to be developed and in place. The plan needs to include formal as well as informal mechanisms. Formal mechanisms include reports to key actors, program heads, college administration, conference presentations, journal articles, monographs, theses, dissertations, memos, etc. Informal mechanisms include classroom presentations, senate verbal reports, discussion groups, faculty interaction, etc. Dissemination needs to be regularly scheduled to establish and maintain visibility and credibility. Involve key actors and all affected by information in disseminations, decisions, and processes. Give credit to all key actors.

Chart 2

Interpersonal Elements, Activities and Strategies

Element	Activity	Status	Strategy
1. Ownership and Involvement	Working with each program group on evaluation system components which affect them.	Work initiated with FEEP and PI Programs	Initiate one program at a time and generate interest, involvement and provide feedback; work on parts of system which affect them.
2. Anxiety	Interpersonal interaction and discussion.	Underway	Direct work with actors to reassure them and to provide a good working relationship.
3. Organization support	Secure support of key actors in colleges by personal interaction and demonstrated payoff of efforts.	Ongoing	Demonstrate use of data in visible fashion; interact with key actors in system; disseminate products of system; get visible central administrative support for effort in front of other key actors.
4. Variable selection	Work with key actors and central administrators to identify, select and operationalize variables of interest and importance.	Ongoing Some in place (FEEP, PI)	Provide suggested list of variables; build key actor involvement through discussion about which variables to use, work with one program at a time.
5. Values	Identify value orientation of key actors and central administration with respect to content area, data systems and use of data.	Ongoing	Work with key actors and central administration on personal bases to learn what their frame of references and values are. Be cognizant of value conflicts and bring this to awareness of group in order to move group forward.
6. Criteria setting	Work with each program group to establish criteria on various measures.	Ongoing	Involvement of key actors in establishing criteria to help build ownership and to keep criteria realistic; suggest criteria for their review and comments.
7. Feedback loop	Provide immediate feedback on collected data.	FEEP in place PI in place	Show use of data to actors and provide them with useable and timely information; request input from them on when and what format to provide most appropriate information.

Element	Activity	Status	Strategy
8. Receptivity	Build support for use of data system through formal and informal channels.	Ongoing	Get data from system into formal channels for action, e.g., back to program, on senate agendas, on college administrative agenda; build informal support for use of data through dissemination of data in college and through other interpersonal interactions.
9. Leadership	Get visibility and reasonable direction for the system established in college and on larger scale; establish sound conceptual positions for system and its various pieces.	Ongoing	Healthy and sound management style; delineate sound conceptual basis for various pieces of system and make sure they fit together; have sound and workable, visible plan of attack.
10. Competence	Interact with key actors in professional, helpful manner.	Ongoing	Select quality staff with skills to address necessary functions; have all staff interface with actors in a professional manner through the demonstration of their skills in operating the system.
11. Visibility	Keep the system and its products in front of the actors on a regular basis through memos, study products, user feedback, college dissemination organs and external activities such as proposals, projects, conferences, presentations.	Ongoing	Provide feedback to users on a regular, timely basis; get system on agenda of various programs and college administration; use in-house dissemination organs for visibility; disseminate information to actors on a regular basis, e.g., summary of student follow-up.
12. Identification of key actors	Through formal and informal means identify key actors and power brokers in system and initiate ongoing dialogue with these people; e.g., department chairs, program heads, well respected faculty, opinion leaders.	In place Ongoing	Formal identification through table of organization--informal identification through dialogue with people in formal structure as well as discussion with key actors. Identify formal and informal power structure, use information to facilitate implementation by seeking advice and counsel of key actors.

Element	Activity	Status	Strategy
13. Politics	Identify nuances, conflicts, strengths, weaknesses and agendas of each program through discussions with various program personnel.	Ongoing	Use information to help guide decision making in implementation; use awareness data to help overcome resistance by anticipating the posture of various actors to proposed changes.
14. Turf	Identify areas where key actors assume proprietary rights or logical domains through the formal organization structure and informal discussions. Identify degree of personal possessiveness.	Ongoing	Be sensitive to various domains and use this information to assist in guiding implementation effort.
15. Organizational awareness	Identify the parameters, constraints, programs and activities within the college.	Ongoing	Knowing how the organization functions can be an asset when decisions need to be made; the information provides a context and a series of existing mechanisms to assist with implementation.
16. Appraising, judging	Appraising and judging must be done when one interprets data. Efforts have been made to involve key actors in assisting with data interpretation.	Ongoing	Involve key actors and administrators in the interpretation of data. This helps to build in ownership as well as providing a strong reality base to the outcomes.
17. Goal clarity	Delineating and clarifying the major directions of the system, interacting with key decision makers and program heads to bring the system from paper to reality.	Ongoing	Involve key actors and administrators in the development and implementation of the system to build in ownership, awareness and visibility.
18. Task selection	Interacting with key decision makers to identify high priority tasks to be implemented.	Ongoing	Start with a small task where there is good chance of immediate success in order to gain credence and visibility; move systematically through tasks as each becomes operational or routinized. Work on one task at a time being sensitive to impending needs, politics and other pressures. Involve key actors in decision process.

Element	Activity	Status	Strategy
19. Access to data sources	Develop working relationships with key actors who control access to various kinds and levels of data. Establish procedures and/or mechanisms to access needed data.	Ongoing	Identify data sources, needs, and time frames for data; negotiate access to data with key actors. Involve these actors in the decision process. Share results immediately with key actors, give credit to data sources and key actors.
20. Ethics	Identify ethical and unethical uses of data, maintain confidentiality of data; guard against unethical use of data; convey this information to key actors, sources of data, etc.	Ongoing	Establish and maintain ethical posture and integrity of operation. Convey picture of competent and responsible professional behavior.
21. Conflict of interest	Be alert to possible conflict of interest activities and situations; avoid such situations and apprise key decision makers of potential problems when situation arises.	Ongoing	Maintain professional and ethical posture. Enhance credibility, avoid conflicts of interest through sensitivity and awareness of actions.
22. Design agreement	Involve key actors in various aspects of the system design; seek consensual agreement before implementation.	Ongoing	Generate work plan and share with key actors for review, input and revision through ongoing working relationship; encourage participation and involvement with all actors to be affected by design.
23. Timing	Identify major time frame and various activities in general plan. Discuss and negotiate timing of activities with key actors in light of constraints.	Ongoing	Share thinking with key actors and involve them in deciding on when activities will occur within general time frame; allow sufficient time to accomplish tasks and maintain limited numbers of concommittant activities.
24. Utilization	Work with key actors to provide feedback on data and develop with them mechanisms for use of data.	Ongoing	Establish a plan with each key actor for use of the data (before data is collected). Utilization must be part of system for the system to have intended impact; turn data around rapidly, efficiently and in useable fashion.

Element	Activity	Status	Strategy
25. Communication	Establish and maintain open lines of communication with all levels of actors in the system.	Ongoing	Communication is a necessary but not sufficient element for successful implementation. Without consistent and ongoing communication through formal written and verbal presentations as well as informal interaction the system will have difficulty in functioning.
26. Personality differences	Identify personality differences between key actors. Be sensitive to these differences and attempt to take these factors into account during the planning and operating stages.	Ongoing	Being sensitive to and aware of personality differences can be helpful; for example, by not scheduling the conflicting parties to directly interact unless absolutely necessary or by other bridging techniques.
27. Interests	Identify and be aware of interests of key actors as they may be in line or in opposition to proposed direction of system.	Ongoing	Use information on interests of key actors to increase their involvement in the system if the interest is in line with system; or to be cautious about a direction or reaction to a proposed idea if the interests are in opposition to the system. Such sensitivity can help avoid potential conflicts and confrontations.
28. Changes in status quo	Be sensitive to reactions about proposed changes in the status quo to a different set of operations. Plan for dealing with these reactions through sensitizing the actors and data sources to the proposed change before it occurs.	Ongoing	Develop and use plans to systematically introduce changes in the status quo. Involve key actors in the decision process and keep them apprised of current status. Desensitize actors by introducing changes gradually over time and with their knowledge before it occurs.
29. Status rivalry	Be aware and sensitive to potential reactions to the visibility of the system as it reflects upon the leader. Colleagues will not always react positively to efforts or success.	Ongoing	Share credit for the system with all actors. Build in as much ownership as possible. Maintain personal low profile on sharing credit. Use key actors to present findings as appropriate.

Chart 3

Administrative Elements, Activities and Strategy

Element	Activity	Status	Strategy
1. Policy examination/ development	College Senate adopts policy governing and authorizing system.	In place	Work with central administration and key senate members to draft policies, build support and get policies adopted.
2. Fiscal support	Secure money from central administration to operate system.	In place	Negotiate for necessary fiscal support before you commit to task; obtain budget control.
3. Administrative support	Involve central administration in decision making, public communications of system and ongoing activities.	Continual	Get visible, consistent commitment of time, interest and activity from central administration.
4. Staffing	Hire staff with interpersonal, methodological and teacher education skills (staff skill must complement each other).	Staff in place	Delineate roles and functions necessary to achieve reasonable outcome and secure those skills in staff.
5. Resource support	Secure necessary space, equipment from central administration to operate system.	In place	Negotiate for centralized space and adequate resources to complete job.
6. User guidelines	Generate draft guidelines in line with policies on system users (confidentiality) for debate, revision and adoption through College Senate.	In process	Work with key senate members and central administration to develop user guidelines; get guidelines supported by key actors through peer input.
7. Use of data	Get draft guidelines developed for review, revision and adoption by College Senate.	In process	Work with key senate members and central administration to develop, revise, and adopt data use guidelines.
8. Agreements/contracts	Generate and secure working agreements and/or contracts with agencies, offices, programs, individuals.	Some in place Some in process Some yet to be developed	Set up agreements as part of working relationship but in advance of actual evaluation activity; work collaboratively with key actors; get information in writing.
9. Roles and functions	Clearly delineate roles and functions to all persons participating and/or affected by system.	In process Some in place	Set up job descriptions, roles and functions that are visible, known and sanctioned by all persons involved in system.

Element	Activity	Status	Strategy
10. Allocation of resources	Select tasks on which to work and begin allocation of resources to task.	In place Continual	Work collaboratively with staff to keep work load reasonable, forward and on target. Utilize staff skill through delegation and cooperation. Continually reinforce positive staff behavior.
11. Costs	Identify major costs and decide which alternatives to select among.	In place Continual	Involve staff in decision making through alternatives identified and actual input into decisions. Keep costs reasonable and within budgetary limits.
12. Standards	Identify and delineate standards of operation. Make standards visible and public.	In process	Clearly identify frame of reference for all actors and what standards will be accepted; use existing standards, document as resource support.
13. Concern for disruption	Collection of data at various points in the educational program resulting in potential disruption of ongoing process.	Continual	Awareness of regular process and establish working relationship with each actor so that timing of data collection can be appropriate and meaningful with minimum disruption. Make data useable by and available to actor.
14. Planning	Have a reasonable and systematic plan to implement the effort.	Ongoing	Involve key actors in parts which affect them; have staff input into plan; move one step at a time; get pieces into place.
15. Management	Orchestrate and coordinate many pieces of action, people, and resources.	Ongoing	Operate on sound and consistent management principles, involve key actors, have staff participate in decisions; maintain flexibility.
16. Practicality	Keep system reasonable, manageable so as to not overwhelm actor.	Ongoing	Maintain perspective, get external advice, involve many levels of people and obtain input, look for important elements in system and focus attention on them.

The overarching strategy is to begin implementation before the conceptualized system has been finalized (the system has been under development for three years). Individual pieces are being initiated while the overall system is being completed and/or modified. A second general strategy is that the system is an open system and therefore capable of being modified, expanded or contracted. A third general strategy is to move the system forward one step at a time, by plan, rather than trying to implement the entire system at once. These individual steps may be occurring in rapid succession or even simultaneously if the circumstances permit. On the other hand, some steps are exceedingly plodding and slow.

The reader should realize that the elements presented in Table 1 are not in any order of priority or other temporal classification. Obviously certain of the elements must occur before others can be considered. A second obvious note is that very few of the elements listed under each of the three categories is pure. Each element typically has some relationship with the other categories. What is painfully clear is the tremendous amount of interpersonal interaction involved in the entire implementation process.

The three charts (Chart 1 Methodological, Chart 2 Interpersonal and Chart 3 Administrative) have been useful to us in guiding our implementation efforts. We realize that there are many other strategies and activities which we could use and perhaps individuals may suggest that one or more of our actions were ill advised. What we have done is not perfect but we are willing to share our experiences, successes and frustrations. We believe that dialogue and debate on these topics is essential if we are going to productively move forward.

As a general statement, we have moved rather cautiously in a step by step fashion attempting to implement the data matrix presented by Dr. Zimpher. In summary form the following pieces or items presented below in Table 2 have been implemented. We will continue to move forward and try to make the system come alive.

Table 2

Implementation Status Matrix of SIS

	Descriptive	Assessment	Narrative	Context
Preprofessional Data	Demographic and Historical Data	High School Data ACT/SAT GPA		
Professional Freshman (FEEP)	Course descriptions Myers Briggs Personality Inventory Commitment Request	Teacher Candidate Profile ② Grades	Personal Growth Plan	
Sophomore (PI)	Course descriptions Field Placement Requests	Teacher Candidate Profile ① ② Grades	Critical Event Form ③	
Special Methods Courses	Course descriptions	Grades		
Content Specialty Courses	Course descriptions	Grades		
Foundations Courses	Course descriptions	Grades		
Student Teaching	Course descriptions Field Placement	Grades		
Postgraduation	Course descriptions Follow Up Demographics Observations Interviews			

① = Schreck paper
② = Reighart paper
③ = Lemish paper

Note the numbers 1, 2, and 3 listed in the Status Matrix. These numbers identify the areas of the matrix from which we have extracted three examples of studies conducted on the system. These numbers reflect the presentations to follow by (1) Ann schreck, (2) Penny Reighart, and (3) Peter Lemish.

Over and above the items on the matrix, a number of other important activities have been initiated or completed. These activities are listed below along with their status.

Activity	Status
1. SIS Policy	
a. Development	completed
b. Process for College Senate Approval	completed
2. User Guidelines	
a. Development	completed
b. Process for College Senate Approval	in process
3. Access Guidelines to Data Base Information	
a. Development	completed
b. Process for College Senate Approval	in process
4. Involve key actors	in process
5. Involve College Administrators	completed-on-going
6. Develop Feedback Mechanism to Report TCP Data to Feep and PI	completed
7. Plan for Computer Storage and Retrieval of Data	in process
8. Identify Documentation of Individual Program Requirements	completed
9. Conduct Research on Components of the System	
a. Four studies	completed
b. Two studies	in process
10. Conduct Annual Follow-up of Students	
a. 1981 follow-up	completed
b. 1982 follow-up	in process
11. Pilot Test National Teachers Exam	completed

Activity	Status
12. Acquire Staff and Space for the System	completed
13. Develop Documentation for Accreditation Visits	in process

The system continues to be well received and is moving forward. The challenge is to continue to move forward.

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IV. A Focused Evaluation of the Student Information System

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Introduction

An evaluation of the Student Information System (SIS) was conducted after the system had been under development for two years. The conceptual basis and design of SIS had evolved from the developers' awareness of teacher education evaluation issues and concerns and their desire to create an evaluation approach which provides extensive information about many key aspects of teacher candidates, and their educational program for the improvement of both. The purpose of this evaluation was to collect, analyze and present information about the implementation of SIS. Specifically, the evaluation focused on a teacher candidate profile questionnaire administered to students enrolled in a sophomore level Professional Introduction course Winter quarter, 1982. The instructor and cooperating teacher for the field experience part of the course completed the questionnaire for each student as well.

In terms of data matrix of SIS (Zimpher, 1983), the block formed by the intersection of the Professional Introduction (sophomore level students) and Assessment categories pinpoints the area on which this evaluation focused.

Professional Introduction Questionnaire

The questionnaire studied in this evaluation was called the Professional Introduction (PI) Teacher Candidate Profile (TCP). It was an eleven item instrument divided into four sections: 1) generic skills (four items), 2) skills relating to the PI curriculum (two items), 3) skills specific to a particular lesson or lessons (three items) and 4) setting of the student

teaching experience (one item). The items allowed a rating on a five point scale from inadequate or low quality to outstanding or high quality. The setting item scale ranged from exceptionally difficult to exceptionally easy. One hundred twenty-two students were rated, each by themselves, their instructor and cooperating teacher. Thus, a total of 366 questionnaires were completed.

Descriptive statistics computed from results of the questionnaire showed an overall high average ($\bar{X} \geq 3.9$) for each item. No significant differences between the three groups of raters (students, instructors and cooperating teachers) were found for any item except one; student's execution of a teaching unit. For this item, the scale had been reversed high to low instead of the opposite as were the rest of the items. This reversal in the rating scale may have gone unnoticed by some respondents and accounted for the difference detected between raters.

The high, uniform nature of the responses for each group raised questions about the construction of the items in the instrument. It was found that the items were very general and provided no criteria by which judgments were to be made about student behavior. Individual raters may have used different standards to make decisions about ratings. This type of situation may also have allowed a halo effect to occur as the lack of a standard may have resulted in a variety of self-imposed and non-equal standards being used by the various raters.

Since the raters were to sign their names to the questionnaire, fear of the consequences of the results may have prompted high, favorable ratings. When unsure of the item or its subsequent interpretations and use, it may have seemed safer to give favorable rather than unfavorable results. Assurance of confidentiality and honest discussion of how the results will be used and why might alleviate this problem in the future.

The question of validity of the instrument and its results were raised as no clear documentation was evident to describe exactly what the questionnaire was supposed to measure or how the results were to be used. An item specification matrix and/or review and approval by an expert panel consisting of the instrument developers and potential users might have provided evidence of content validity, i.e., the instrument was a representative sample of all possible items that could have been asked about the PI course and contained a reasonable proportion of items for each area of concern.

The underlying constructs the questionnaire was attempting to assess were vaguely described to be generic teaching skills or competencies and skills specific to the course for which it was administered. Controversy has loomed over what competencies a teacher must have in order to function adequately in her or his career. The items concerning ratings of clarity, enthusiasm and time management included in the questionnaire appeared to be measuring some proposed constructs of teacher competency. The reason for the selection of these particular items was not documented. In order to validate inferences drawn from the questionnaire in terms of constructs, the constructs themselves must be clearly articulated. This would provide the groundwork for further study of the construct validity of the questionnaire's results.

Beyond the descriptive validity (content and construct) issues described above, the decision-making validity of the results was questioned. First, were any decisions to be made based on the results of the questionnaire? One of the specified purposes of SIS is to diagnose student progress in order to counsel and advise students. Are results of the questionnaire to serve as predictors of future performance? Will these predictions be considered when counseling students? Are only descriptive inferences to be drawn from the PI instrument? No clear plan or guide was set as to how the results would be

interpreted or used. If the results are to be predictive of future behaviors, those behaviors need to be specified. After a reasonable length of time has elapsed, studies can be undertaken to determine if the ratings received by students are a suitable base upon which to predict performance in future courses or performance as teachers in the field.

Validity is an important concern in the area of assessment. Due to the identified problems with the construction of the questionnaire and the lack of documentation as to what it is supposed supposed to be measuring, the validity of the instrument and its results were questioned. This issue of validity is in need of constant monitoring and evaluation in order for the instruments to be proven accurate, useful indicators of students' educational development.

The reliability of the instrument was evaluated in terms of its internal consistency. The reliability coefficient computed for the instrument was relatively low (Alpha = .511, $p < .05$). This may have been due to the diversity of the items and their few number. A lengthier instrument with specific sections might permit the internal consistency of individual sections of similar items to be analyzed.

Inter-rater reliability was assessed by comparing ratings for a particular student by the student him or herself, his or her instructor and cooperating teacher. This process was referred to as triangulation. Correlation coefficients computed for the responses of each trio showed some to have significant positive results while others had insignificant positive or negative correlations. It was found that for some trios all three raters were in agreement. In others, two or all three individuals differed on the averages of their ratings by one or more points. This analysis provided some evidence of discrepancies among raters which was lost in the overall group analysis. The lack of consistency among raters might have been caused by their indivi-

dual interpretations of the items. Varying implicit standards for rating the students may have also accounted for some of the differences. Clarifying the items and specifying the criteria for ratings may serve to provide a common understanding among all raters. If the ratings show true differences in opinion, conferences between raters may be useful to understand the differences and to work toward a common standard so students will know what is expected of them and what particular areas are in need of improvement.

As with the validity issues of the questionnaire, the reliability of the instrument must continue to be monitored and efforts made to improve and then maintain it.

A final concern about the TCP instrument was the feedback and use of the information gathered with it. At the time of this evaluation study, little could be seen in terms of the plans by which the information would get to individuals it is supposed to serve. Students would gain access eventually whether through manual files or a computerized system of data storage and retrieval. Feedback of information was to begin once SIS has been adopted formally as policy of the college.

Although early in its development, it would be of benefit to make the information collected about students available to them. This could indicate two things, (1) do the student's bother to look at the information?. And, (2) what do they do once they have seen it? If students fail to use the information or make no apparent attempts to change or seek help once they have seen it, this may indicate the system is not working and should be modified to instruct and encourage students of its use.

Similarly, instructors and administrators did not demonstrate their use of the information. No evidence was found to indicate that either instructors, program developers or coordinators had studied results of the questionnaire used or made changes because of it.

This lack of feedback will undermine the accomplishment of two important purposes of SIS: to diagnose student progress for counseling and advising functions and to evaluate students for their improvement as well as that of the entire program. There appeared to be an emphasis on data collection but not its use. While the former must be completed before the latter is carried out, it is probably important to plan some measure of whether or not the information is used.. When students are advised to do certain things or program modifications are made based on the information gathered, these two important goals of SIS can be better evaluated.

Summary

At the time of this study SIS and the TCP instrument had been under development for well over a year and were still in need of refinement. Assumptions and theories underlying the assessment approaches had not been made explicit in the documentation of the system. The SIS lacked a focus on any particular evaluation questions. Likewise, the plans for the use of information gathered with an instrument within SIS was lacking. The system stressed description, but failed to indicate how information was to be used. Setting guidelines such as: students rated below average on three or more skills should be recycled, may help those who receive the information know what to do with it.

Projected users of the information may become better aware of its purpose and possible uses if they are involved in developing the items to appear on the instrument. The assessment instrument was constructed by the developers of SIS. It is understood that instrument development has to begin som*where, but the instruments might be of more use if students, instructors or counselors were involved in the development process. The collection of data which serves no apparent purpose may annoy or burden program participants to the

point where they resist the entire SIS effort. The questionnaires have now been revised and instructor input has been sought. This process should continue and include input from students and administrators as well.

Plans for the feedback of information to users was a weak area in SIS. This problem may be alleviated by designating a person or team of people responsible for getting information to users. These coordinators or facilitators should be able to interpret or condense findings in a way to make it most useful to decision makers. Until the use of SIS data becomes an autonomous and voluntary act these individuals can see that information is presented to potential users and its purposes understood. Efforts which contribute to the understanding of SIS and each of its components should be developed and implemented.

Accuracy of information is as important as its feedback and must be assured before users receive it. The instruments have not been proven to be valid, reliable indicators of student performance. Validity has been limited to the developers' subjective judgment. The content the instruments are to cover and the constructs they are said to be measuring should be specified. Without knowing the proposed content and underlying constructs it is difficult to determine if the instruments are valid.

The reliability of the questionnaire studied was found to be weak. Raters did not always agree on ratings they had given students. To enhance interrater reliability it is suggested that items be better defined or examples provided to assure accurate interpretations. Standards for evaluating students should be set for each item to allow a common understanding of what is the expected behavior of a competent individual at that point in the curriculum.

Biased responses may have resulted from students perceiving the assessment as a threat or exposure of their weaknesses. Confidentiality should be assured and maintained. Less apprehension about who sees the results and what is done with them may allow a person to give honest, accurate responses.

Once the validity and reliability of information have been demonstrated, careful analysis of the data must be carried out to assure accurate interpretation of results. Analysis of group data may mask individual differences. Group data may be appropriate for high level decision makers, but analysis of each individual's responses are necessary for students who must make decisions about their careers, or counselors and instructors responsible for guiding individual students.

Once valid, reliable data and accurate appropriate statistics have been secured one would be better able to assess the impact of the TCP as an integral element of SIS. Indicators should be developed to determine if changes for improvement are resulting from the use of the TCP. These might be regular surveys or interviews asking if SIS data has caused users to change in their attitudes or behavior. These results may also provide information about weaknesses in SIS and collect ideas on how it might be improved.

SIS is an ambitious effort to improve and ensure the quality of teachers graduated from the College of Education. Some of the strengths and weaknesses of one instrument used within SIS have been identified in this report as well as recommendations for improvement. If efforts are continued to refine and improve the assessment instruments there is a better chance that SIS will be able to prove its effectiveness as a documentation system. Serious reconsiderations should be given to the purposes of SIS and the plans for feedback and decision-making if the system is to prove itself to be an effective evaluation system.

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V. Improvement and Use of the Student Information System Teacher Candidate Profile Instrument

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The Teacher Candidate Profile (TCP) instrument is designed to provide assessments of preservice teacher performance during several stages of the undergraduate program. This paper describes the continued development and use of the TCP instrument in two field-based professional preparation core courses.

The first course is the Freshman Early Experiencing Program (FEEP) and involves 160 hours of field observation and participation and 30 hours of small group seminars during a ten week quarter. Emphasis is placed on student exploration of the teaching profession and of self in the teaching role.

The second course, generally taken in the sophomore year, is the second part of a two course sequence titled Professional Introduction (PI) 451. This six credit hour course includes numerous laboratory teaching experiences and a two week intensive field experience near the end of the quarter. The Teacher Candidate Profile instrument is completed at the end of the field experience component in both FEEP and PI 451.

Description of the TCP Instrument

The Autumn 1982 version of the FEEP TCP instrument contains 18 items dealing with five areas of performance. The first area (7 items) includes behaviors identified as important course outcomes, e.g., exploratory behavior, initiative in completing tasks, and participation in teacher roles. The second area (3 items) includes the basic communication skills of reading, writing, and speaking. The third area (6 items) includes general teaching skills such as clarity, enthusiasm, professional relationships, and self-

evaluation. The fourth and fifth areas include one item each on difficulty of setting and overall performance.

The five-point assessment scale ranges from a low rating of needs substantial development to a high rating of greatly exceeds expectations. An overall standard for comparing student performance reads, "Relative to the level expected of a first year teacher education exploration student." A triangulated comparison of ratings is achieved by having three raters (the course instructor, the cooperating teacher, and the student) complete individual assessments of the student's performance.

The Autumn 1982 version of the PI 451 TCP instrument contains 16 items dealing with three areas of performance. The first area (7 items) assesses the basic communication skills of reading, writing, and speaking. The second area (7 items) assesses general teaching skills and outcomes of importance to the Professional Introduction course. The third section includes two items on difficulty of setting and overall performance. A five-point assessment scale ranges from a low score of inadequate to a high score of outstanding. Again three raters (the course instructor, the cooperating teacher, and the student) complete the assessment on each student.

In the Student Information System (SIS) Matrix presented by Zimpher (1983), these two forms of the Teacher Candidate Profile instrument are found in the second column, assessment, and in the first two rows of the professional preparation section.

Recommendations and Tasks for Improving and Using the TCP Instrument

Schreck (1983) evaluated the Winter 1982 version of the PI 451 TCP instrument and made the following recommendations: (1) develop specific criteria and standards in order to increase the consistency of judgments, (2) document more clearly the content and construct validity, (3) establish a

guide of intended predictions and interpretations of the TCP data, (4) raise the level of internal consistency, possibly through a lengthier instrument, (5) develop a feedback system in order to provide information about the data to instructors and students, and (6) involve users in instrument construction and development of a feedback system.

Based on these recommendations and on the observations and judgments of the Student Information System staff, the revisions and processes which have been conducted can be organized under three main tasks and an overall goal. The three tasks are: (1) continue to improve the TCP instrument, (2) organize procedures for efficient data collection and data analysis, and (3) develop a feedback system of TCP data analysis to course instructors and students. The major goal has been to involve users in the decisions and processes involved in improving and using the TCP instrument.

TCP Instrument Improvement

Criteria and standards. To provide for greater consistency in the judgments of the three groups of raters, two changes have been made in the instrument. First, specific criteria or defining attributes have been specified to focus the interpretations of the concepts and skills listed in the items. For example, the item, "Demonstrated expressive speaking ability," includes the criteria: was audible, appropriate to setting, appropriate pace.

To provide a standard and levels of performance which are more explicit in meaning than the general scale, inadequate to outstanding, the following standards and levels of performance have been considered and used.

(1) For the early field experience course (FEEP) the following standard and levels of performance have been developed:

> Standard: Relative to the level expected of a first year teacher education exploration student, the student, e.g., exhibited professional behaviors, i.e., was punctual, responsible; observed confidentiality; used appropriate language.

Levels of Performance: (1) needs substantial development, (2) needs development, (3) meets basic expectations, (4) exceeds basic expectations, and (5) greatly exceeds expectations.

(2) For the sophomore level course (PI 451) other standards are being considered.

Standard: Relative to the level expected of a student whom I would recommend without reservation to continue in teacher education . . .

Standard: Relative to the level of an average student teacher . . .

Standard: Relative to the level of an excellent student teacher . . .

Standard: Relative to the level of an experienced teacher . . .

Content and construct validity. Two processes were conducted to increase the content validity. One is the previously described process of adding defining attributes to each item. These focused and more clearly delineated conceptual meanings. Second, a review by eight FEEP faculty members and fifteen PI graduate teaching associates provided suggestions on item clarity and relevance to preservice teacher development. These suggestions were used as bases for item revision, addition, or deletion.

Construct validation is difficult to achieve. A review of the process-product teacher effectiveness research by Medley (1977) included over 260 behavior items grouped under 38 teacher process elements. These behaviors pertain to teaching in the elementary classroom and for the most part are related to achievement scores in reading and arithmetic. Effective behaviors differ for low and high SES pupils. Powell (1978) explained that not single behaviors but certain clusters or patterns of teaching behaviors are related to different types of learning.

The performance behaviors included in the TCP instrument fit neither the specific behavior items listed by Medley nor the patterns of behaviors de-

scribed by Powell. The TCP performance behaviors are probably best described as high inference behaviors accompanied by several identifying attributes.

In FEEP and PI 451, two core teacher preparation courses enrolling teacher candidates from all program levels, it would be inappropriate to have all students learn specific behaviors or patterns of behaviors shown to be primarily related to achievement learning outcomes at the elementary level with low or high SES pupils. And, breaking concepts down into operations can increase preciseness, but can also fragment concepts beyond recognition (Berliner, 1976).

At this early state of teacher preparation, in field settings of limited student responsibility, and with some naive and mostly untrained observers; lengthy and complex evaluation instruments are impractical. An alternative suggested by Berliner is to use multiple methods of measurement from different perspectives. The TCP triangulated ratings provide for one element of this, different perspectives. Other assessment procedures in the Student Information System will provide multiple methods of measuring student performance and development.

The choice of items to assess basic communication skills is to promote the continued evaluation of these recognized prerequisite teaching skills. The choice of such teaching behaviors as clarity, enthusiasm, and time management was influenced by the early effectiveness literature (Rosenshine & Furst, 1971) and by the need to use general rather than situation specific behaviors. Relevance to course outcomes was another important selection criterion.

Internal consistency. The number of instrument items has been increased from eleven on the version evaluated by Schreck (1983) to sixteen on the PI 451 instrument and eighteen on the FEEP instrument. This permitted the analysis

of internal consistency on subsets of items grouped under the headings: basic communication skills, general taeching skills, and for FEEP, outcomes basic to the course.

The addition of criteria and standards, referred to earlier, should also contribute to the internal consistency of the instrument.

Procedures for Data Collection and Analysis

The organization of procedures was done in consideration of the end-of-quarter evaluation and feedback time constraints. Aiming for a one week feedback time frame, the instrument was reformated and directions written so that ratings would be submitted in machine readable form. A time frame and procedures for instrument dispersal, completion of ratings, data analysis, and feedback to instructors were established.

The Feedback System

In order for course instructors to use the TCP analysis to advise and counsel students, the feedback of information must be both relevant and efficient. Individual student statistics were needed as well as group statistics for comparative analysis.

The following types of individual student statistics from the three raters (student, instructor, and cooperating teacher) were provided: (1) discrepancies--item ratings showing a two point or greater discrepancy between the three pairs of raters, (2) means of item subsets by each rater, and (3) means of each item across all raters providing easy location of the student's strengths and needs.

Group statistics included: (1) means and standard deviations for each item across all raters, (2) means for subsets of items across each group of raters, (3) correlations of item subsets, and (4) internal consistency of item subsets.

Written reports of data analyses and information on data interpretations and uses were provided for each instructor. A future goal is to provide analyses to enable predictions of student needs for development and future performance in teaching situations.

Involvement of Course Instructors

Throughout the activities involved in improving the instrument; organizing instrument administration and data analysis, and establishing the feedback system; the cooperation and participation of course instructors were sought. Both group meetings and individual conferences were held. Instructors' concerns and judgments were solicited and their suggestions used as bases for instrument revision. A number of instructors expressed concerns about appropriate uses of data and protection of student privacy. In conducting the instrument revision different forms of leadership occurred in the two groups of instructors. One group preferred to have SIS staff take leadership; while the other group preferred that leadership come from among their members.

Instructors responded to feedback with interest. Those who had participated in previous instrument piloting viewed our report of data analysis and interpretation as a sign that SIS is becoming functional.

Results of Data Analysis and Comparison to Previous Data

The TCP data for Autumn 1982 consisted of the three separate ratings on 177 FEEP students and 99 students from PI 451. Thus the analysis was conducted on a total of 531 FEEP ratings and 297 ratings from PI 451. Individual statistics (for counseling and advising students) included discrepancy analysis of the three pairs of raters, means of item subsets by each rater, and means for each item across the three raters.

Group statistics included descriptive statistics of means and standard deviations, means of item subsets by each group of raters, correlations of item subsets, and reliability (internal consistency) of item subsets.

Descriptive statistics. From the group statistics (summarized in Table 1), the overall mean, excluding the setting and overall performance rating, for all items across all raters is 4.16 on the five-point scale for FEEP and 4.26 for PI 451. These compared with an overall mean of 4.14 from Schreck's Winter 1982 PI 451 data. Standard deviations of ratings ranged from .43 to .63 for FEEP and .41 to .76 for PI 451. From Schreck's data the range of standard deviations was slightly larger, .65 to 1.16.

The means of ratings by groups of raters vary more in FEEP (overall item means by students = 4.10, instructors = 4.20, and cooperating teachers = 4.18) than in PI 451 (overall item means by students = 4.26, instructors = 4.21, and cooperating teachers = 4.29). In FEEP students rated themselves lower than the other two raters; while in PI the instructors gave the lowest ratings.

Variations by item subsets (basic communication skills, general teaching skills, and for FEEP, basic FEEP outcomes) showed ratings which were slightly lower for FEEP student ratings on general teaching skills than on basic communication skills and basic FEEP outcomes. Little variation occurred between the two item subsets (basic communication skills and general teaching skills) for PI 451 student ratings.

The overall item and item subset means are high. The issue of the standard of expected performance is thought to be a contributing factor. If a standard were established representing the final level of performance expected of a well qualified beginning teacher, one might expect to see relatively low ratings of beginning preservice teachers and progressively higher ratings through successive stages of preservice teacher preparation.

The FEEP instructors judged this type of standard to be inappropriate. They chose a standard set at a level of performance expected of a beginning teacher education exploration student. When they compared item subset means

between course sections, particularly high means were evident for some sections. Since the data was reported to instructors for the first time on the Autumn 1982 data, their attention was drawn to this problem. The problem seems to be in the lack of differentiation between students who only meet basic expectations and those who exceed expectations; for the ratings did show differentiation of a few students who it was agreed were below the basic level of expectation.

A factor which would contribute to this low level of differentiation among mid to high levels of student performance is the individualistic nature of evaluating each student in a different field setting. There may be a tendency to rate each student relative to the potential of that student in that setting. When a setting is judged to be difficult (by such criteria as number of students, degree of culture change, and complexity and difficulty of teaching load), it may be that less is expected of the student in order to exceed basic expectations.

An overall standard for the PI 451 instrument has not yet been established. For some items on the Autumn 1982 instrument a standard of what one would expect of a potential teacher was used.

Correlations. Item subset correlations for basic communication skills ranged from .58 to .77 for the FEEP instrument (3 items) and .17 to .69 for the PI 451 instrument (7 items). The general teaching skills correlations for the FEEP instrument (7 items) ranged from .46 to .71 and for the PI 451 instrument (7 items) from .24 to .76. The subset of seven basic FEEP outcome items had a correlation range of .51 to .71.

In general both instruments contain subsets of items which are closely related. The higher level of correlations among item subsets on the FEEP instrument may indicate that it has a closer match of items to intended course outcomes than does the PI 451 instrument.

Reliability. Internal consistency statistics for item subsets in both instruments showed high levels of internal consistency. The Cronback coefficient alpha for the three item subsets for the FEEP instrument were: basic communication skills = .85, general teaching skills = .89, and basic FEEP outcomes = .91. For the PI 451 instrument they were: basic communication skills = .87 and general teaching skills = .86.

Compared to the Spring 1982 PI 451 instrument, coefficient alpha = .51, the Autumn 1982 TCP instruments have been considerably improved on internal consistency.

Summary of Instrument Improvement and Use

The Autumn 1982 Teacher Candidate Profile instruments used in freshman and sophomore field-based teacher preparation courses have been improved in a number of ways.

The FEEP instrument now has more clearly defined criteria and overall standard. Both instruments more closely match the outcomes of each course for which they were designed. The instruments have been increased in length from 11 items to 16 and 18 items.

Procedures for data collection and analysis have been organized to provide for efficient end-of-quarter analysis of data. A feedback system to report individual student and group data to course instructors has been established. Throughout the above activities instructors' judgments were solicited and used.

The rather high overall item and item subset means remain a concern. The problem of raters differentiating between mid and high levels of teacher candidate performance will continue to be pursued.

Table 1

Group Descriptive Statistics on the Autumn Teacher Candidate Profile Ratings

	FEEP Autumn 1982	FEEP Autumn 1982	PI 451 Winter/Spring 1982 (Schreck)
Overall Statistics			
N = Students X 3 ratings	531	297	366
Overall X	4.16	4.26	4.14
Range of Standard Deviation	.43-.63	.41-.76	.65-1.16
Overall X by students	4.10	4.26	
Overall X by instructors	4.20	4.21	
Overall X by cooperating teachers	4.18	4.29	
Item Subsets			
Means			
Basic Communication Skills			
by students	4.17	4.25	
by instructors	4.24	4.20	
by cooperating teachers	4.28	4.23	
General Teaching Skills			
by students	4.09	4.28	
by instructors	4.20	4.23	
by cooperating teachers	4.09	4.36	
Basic FEEP Outcomes			
by students	4.17		
by instructors	4.24		
by cooperating teachers	4.28		
Correlations (Range of item relation to every other item)	r	r	
Basic Communication Skills	.58-.77	.17-.69	
General Teaching Skills	.46-.71	.24-.76	
Basic FEEP Outcomes	.51-.71		

Internal Consistency	alpha	alpha	alpha
Basic Communication Skills	.85	.87	.51
General Teaching Skills	.89	.86	
Basic FEEP Outcomes	.91		

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VI. "What They Bring With Them" - Formative Dimensions of the Student Information System

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This presentation will describe a study of a set of teacher education students using qualitative data techniques appropriate to Component III (Narrative data) of the OSU Student Information System. The purpose of this study was to gain an understanding of the qualitative forms of teacher candidate data available at the entry level of professional preparation.* It is based on the fundamental assumption that our teacher education programs should direct attention to and be affected by the knowledge, skills, attitudes, perceptions, and general backgrounds that students bring with them at the beginning of, as well as throughout, their professional studies. The ways in which students experience the teacher preparation program, in light of their own background and experience, represents the formative dimension of the SIS documentation and assessment process.

Research Methodology

Naturalistic inquiry was applied in this study. Only one intervention, in the form of a written exercise, was introduced. The course selected for this inquiry was the first of a two quarter sequence known as the Professional Introduction to Education. This course is the first course taken by the teacher candidates in their professional studies. This course was selected because it enabled study of how the initial stages of the teacher education program relate to the background of the teacher candidates. Further, the

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* This study was conducted as part of the author's more extensive inquiry into the nature of social processes and experiences in classroom settings.

course curriculum stated that a primary function of this introductory professional sequence was to enable teacher candidates to explore, develop, and relate their own personal and professional development to educational theories and methodologies. Aside from knowledge and skill learnings in the latter domains, the major outcome expected through this personalization was the identification and development by the teacher candidates of their own pedagogical style. While the curriculum delineated in rather explicit fashion the educational and psychological theories as well as the pedagogical methodologies to be included in the course, few guidelines or directives were provided to assist instructors to personalize the course to the teacher candidates or to relate to the backgrounds they brought with them. As a result, each instructor had the latitude to facilitate this emphasis in the course. My familiarity with the staff suggests that the instructor chosen for this study was one of the most active in addressing both the personalization of the course and the personal and professional development of her students.

On the first day of class, I explained to the 19 teacher candidates that I would be functioning as a participant-observer in all class sessions. I explained that the purpose of this study was to tell the story of the class from the students' viewpoints. Therefore additional data-gathering measures would be employed such as interviewing, audio- and video-taping, and photocopying of all written materials. Participants were guaranteed anonymity and all signed human subjects release forms.

Four methods of data-gathering produced the following research materials:

1) Participant-observation by the researcher in 90% of the class sessions produced extensive field notes.
2) Taping of class sessions resulted in audio tapes of all class sessions (approximately 60 hours) and video tapes of all Thursday class sessions (20 hours).

3) Semi-structured interviews with students were conducted by the instructor and the researcher at the beginning of the quarter; the instructor at the end of the quarter; and the researcher at the end of the quarter. In addition, the instructor and the researcher met on an average of two hours per week to discuss class sessions. All interviews and discussions with the instructor were audio taped.

4) Unobtrusive measures included collection and photocopying of nearly all written materials generated by the teacher candidates and the instructor. These materials constituted the primary, though an indirect, source of data about the backgrounds of teacher candidates and included assignments such as summaries of chapter readings, reports on weekly field observations, midterm and final projects, weekly course reaction papers, summaries of clinical experiences, statements of personal and professional development during the quarter, and final instructor-course evaluations.

Data analysis was begun with a thorough examination of all materials collected. As natural categories emerged, data related to the formative dimensions of the teacher candidates were transcribed for each participant. The categories which emerged included personal background and career thoughts; views of teaching, teachers, education, and the educating process; critical educational experiences and influences; and self-description analysis as learners, as teachers, and as persons. Summaries of each teacher candidate were written and the findings of this study were developed through analysis of patterns found in these summary statements. A similar procedure was applied to the analysis of processes employed by the program and course instructor to relate to the backgrounds of the course participants.

Findings

The following section summarizes findings about the formal and informal processes used in the class studies, the findings relating to the backgrounds brought by the teacher candidates to their professional studies, and findings about the interaction of students to the course experience.

Findings on the formal processes. No background data on teacher candidates, such as is collected in admissions procedures, was distributed to the instructor. No pretesting or inquiries into students' knowledge of content to be presented or their capability level in the pedagogical skills to be practiced in the course were undertaken or required. One assignment was directed specifically at eliciting information about the teacher candidates' backgrounds. In an initial "Letter to the Instructor," students were asked to provide basic demographic information (i.e., name, age, marital status, major and work experience) as well as short statements about themselves describing strengths and weaknesses, something they would like the instructor to know about them, and the factors which influenced their selection of education as a major/career. As part oftheir final evaluation, students wrote about their personal and professional development during the course. No request was made in this assignment to relate development during the quarter with the background which the students brought with them to this coures. In class activities and assignments, students were encouraged to personalize and to provide their own personal reactions to the readings; teachers, students, and schools observed in the field settings; clinical experiences; and events in their own class. No information about students was requested or transmitted to the program office, next instructor, or the students' files at the end of the course except the grade.

Findings on the informal processes. In her informal discussions with the students (e.g., before and after class or during a break), the instructor often related to or probed for information about the teacher candidates' background and present activities. Aside from developing a friendly relationship with each of the students, this technique enabled the instructor to add to her knowledge of each teacher candidate. Based upon her knowledge of each of the participants' backgrounds, the instructor on several occasions did suggest readings or meetings with teachers in the field with similar educational interests. She also demonstrated a broad knowledge and understanding of the backgrounds that the teacher candidates had brought with them, as well as extensive knowledge about the students' development during the quarter and their current status both personally and professionally.

Findings on the backgrounds of teacher candidates. Each teacher candidate brought a rich and extensive background to his/her professional studies. The following is a summarized synopsis of this background:

1) Knowledge - Teacher candidates possessed a rather extensive, though general, stock of knowledge about life in educational settings which they were able to relate to many topics discussed in the class. Students used this knowledge, for example, to extend a point made by an author/colleague to teaching situations or to explain how a particular opinion they had was relevant to educational practice.

2) Skills - Well over a majority of the students had experience using some of the pedagogical skills designated for practice in this course (e.g., developing and coordinating activities; working with groups or individuals; human relations skills). Because of these experiences, many students were able to identify skill areas which they were interested in improving or exploring.

3) Attitudes, Opinions, and Commitments - Throughout the course, participants stated freely their attitudes, opinions, and commitments about such varied educational topics as the role of the teacher, open versus traditional schools, types of appropriate discipline, suitable environmental arrangements in classrooms, and effective teaching strategies. Furthermore these students were able to defend their opinions with reasoned arguments based upon knowledge and appropriate examples from field observations or from their own previous experiences.

4) Values - Through advancement of their attitudes, opinions, and commitments, teacher candidates were seen to have expressed value positions regarding educational and career topics. Among the 19 students, a very wide range of value comoitments was present.

5) Interests - Though expressed in general terms, these teacher candidates indicated that they have thought about why they wanted to be teachers, the age group and content areas they preferred, the level of social status and financial reimbursement involved in teaching careers, and what they must do to become/be effective teachers.

6) Views of Self as Teacher and as Learner - Students were able to discuss their strengths and weaknesses as learners as well as the instructional strategies that worked most effectively with them. Similarly, they applied their self-understanding to project/reflect upon how they might did function as teachers, their possible strengths and weaknesses, and areas in their professional development which they were interested in improving.

7) Personal Background - Aside from data that can be related to the teacher candidates' professional background, participants shared many aspects of their personal lives and backgrounds. Thus, much of the personal dynamics, character-personality, life-style and world view that the students had been developing throughout their lifetime were shared and came to be understood by the other participants. Similarly, interests and activities outside of the two hours a day that they spent in class became part of our understanding of one another.

The three main sources of the teacher candidates' extensive professional background were a) their 12 years plus experience as participants in both formal and informal educational settings; b) previous studies; c) critical educational experiences. In short, these teacher candidates were not strangers to educational settings and few things that happened there seemed to surprise them. Furthermore, they activated their experience and background when explaining, for example, why they interpreted a teacher or students' actions in a particular manner or in discussing the characteristics of good poor teaching. Finally, the background of each teacher candidate was idiosyncratic and very personal. Further, there was a great amount of variance between individuals in most every dimension of their backgrounds.

Most of the information elicited seemed to exist at the implicit, preconscious level. Though most of the students' backgrounds emerged indirectly and slowly throughout the quarter, the teacher candidates willingly introduced and discussed this information. Further, the students themselves were not able to elucidate in a complete or holistic manner their own personal and professional backgrounds. It should be noted that the knowledge, skills, and views expressed were very general and it did not appear that most students had reflected upon or even attached importance to this information. In short, this background appeared to be simply taken for granted.

In their writing of personal reactions, the teacher candidates admitted to themselves the presence of gaps, specific interests, needs, and weaknesses in their present development, personally and professionally. While requests for elaboration may have indicated those areas that the students felt were strong or reasong for the gaps, weaknesses, etc., these admissions in and of themselves are indications, at least implicitly, of a basic recognition of the background which they brought with them to their professional studies.

Findings about course impact. Students indicated that a major factor in their willingness to share information about themselves or their openness in expressing their opinions was the supportive environment created and facilitated by the instructor. The emphasis upon personalization of the course and the opportunity to explain their personal reactions created opportunities for students to relate their backgrounds to their initial professional studies. Development or extension of the teacher candidate's backgrounds occurred as a result of individual efforts by the students in the course. For example, several students noted that in writing summaries of field observations they strengthened their commitment to activity-oriented teaching strategies, over lecture style approaches, after seeing the impact these approaches had on students observed.

Conclusions

There appears to be a major dislocation in the relationship between the teacher candidates and the teacher education program. The findings demonstrate that teacher candidates brought with them to their professional studies rich and extensive backgrounds. These backgrounds include, at various levels for individual students, knowledge about educational practices, capabilities in some pedagogical skills, as well as definite attitudes, opinions, and commitments about many aspects of the educating process. Yet, in terms of the formal program, these backgrounds were not addressed or related to in a significant manner. To the degree that she was able, the instructor attempted to personalize the course by sanctioning the sharing of personal reactions. While not directed specifically at developing the backgrounds teacher candidates brought with them, these efforts do indicate an attempt to relate to these students in an individual manner.

One major outcome of this dislocation is that, at the formal program level, the teacher education program related to the teacher candidates as if they began their professional studies "tabula rosa." The findings in this study clearly demonstrate that this is not the case. The backgrounds that the teacher candidates brought with them were raw in professional terms, highly idiosyncratic, and limited by dependence upon personal experience. Nonetheless, this background served a critical role as the organizational framework within which experiences and knowledge from their initial professional studies were fit. In my experience, teacher candidates and instructors who are aided in documenting and analyzing this background are able to proceed to a broader and often challenging consideration of educational ideas and practices.

A second important outcome of this study is that data about the background dimensions of teacher candidates is elicitable and documentable. In the open

and supportive environment facilitated by the course instructor, the students studied demonstrated that they were willing to share information about themselves. Thus, given the opportunity to share and to explain their personal-professional reactions, these students drew actively upon and exhibited the backgrounds they brought with them. This indirect approach applied by the instructor could be a very useful strategy for eliciting in a deliberate manner information that may be unobtainable using more direct approaches (n.b., given its implicit, taken-for-granted status, students may not be able to fully elaborate this background when responding to a direct request). This conclusion suggests that careful consideration should be directed at the processes applied in eliciting and relating to the backgrounds that teacher candidates bring with them.

Finally, though the instructor developed during the quarter an extensive understanding of each teacher candidate, this information will not be available to future instructors. More importantly, the students themselves are unaware of the richness of knowledge and skills that they bring with them to their professional studies. As a result, the "tabula rosa" dislocation will be likely to continue cyclically with each new course and quarter. On the other hand, in the final instructor-researcher interview, the instructor was able to summarize rather succinctly the background, professional status, and issues-topics of concern for each teacher candidate. It would seem that the instructor might just as easily have transmitted this information in some fashion for use by future instructors as well as by the teacher candidate. This is the role that may be played by Component III of SIS.

Implications

One obvious implication from this study is as follows: if programs directed attention to and related to the backgrounds brought by teacher

candidates to their professional studies, they would most likely need to consider changes in their present configuration and activities. Such changes would correct the present dislocation in the teacher candidate-program relationship. One expected result of such changes should be more effective facilitation of instruction and learning. A major role of SIS should be to make this background information available to programs, instructors, and teacher candidates.

Second, in terms of the design and use of SIS, this study suggests that without Component III - Narrative Data, Components I and II provide a limited, perhaps illusionary, view of the development of the teacher candidate. The qualitative information to be included as narrative data in Component III is likely to provide the necessary grounding and perspective needed for understanding the descriptive and statistical data of Components I and II. While generalizations or statistical analyses might be able to be made on very specific aspects of the teacher candidates' backgrounds, comparisons or general statements about the backgrounds, as a whole, would likely be too general to be of value. For example, comparisons of career thoughts, such as desire to be an elementary teacher because a teacher candidate likes working with young children, would have to be understood in relation to a holistic view of each teacher candidate's background.

Therefore, it would be useful to develop a basic set of guidelines to be used by instructors in transmitting data for inclusion in Component III of SIS. Such guidelines should outline broad categories related to the personal and professional development of teacher candidates. The categories provided in the findings section of this study could be used as an initial basis for developing such guidelines. As well, attention of designers should be directed to instructional processes and approaches to be used in eliciting these data.

VII. Peering into the Future of the Student Information System

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College of Education
The Ohio State University

As one re-examines the four basic purposes of the SIS system and the projected data matrix the enormity of the implementation task becomes readily apparent. Substantial progress has been made but the installation and functioning of the entire system is far from complete. Substantial amounts of energies need to be allocated to the interpersonal as well as to the methodological and administrative dimensions. As we move through the implementation we are discovering that some aspects of the basic purposes may not be completely compatible with each other and may under certain circumstances be conflicting. Therefore our primary strategy for implementation will remain the basic one step at a time approach, building in small and successful modifications to the purposes and procedures in the system as these become apparent.

To date the system has received excellent support from all levels within the college (including fiscal, organizational and programmatic and collegeal). We are diligently working from our end to secure the continued support necessary for success. All indications are that this support will be continued. However, the ominous cloud of fiscal retrenchment facing higher education in general and the state of Ohio and the College of Education at The Ohio State University in particular, is ever present. At this time and projected into the short term our operation has not been significantly constrained and will not be so constrained because of the integration of these efforts into the total operation of the college's functioning. Conceptually the long term projections are very positive, but only time will tell what will occur

operationally. As resources continue to shrink, the competition and pressure for allocation of internal resources will continue to grow. This fact, coupled with declining enrollments creates circumstances which makes predicting with any degree of certainty very perilous. Our position is not unlike any other activity currently occurring in colleges of education around the country. Our challenge is to continue to produce in the face of adversity and become an indispensable and well integrated element in the functioning of the college. Our resources, while not extensive or to the level we would desire are adequate. We can continue to move the system forward with our current level of allocation. However, to get the system completely operational will require an increased level of support.

It might be well to identify a number of specific actions which have been planned for the near future. The data matrix has several cells in the descriptive and/or assessment column where there are logical data entries. We will begin to systematically move beyond the sophomore level data (PI) and into special methods courses, foundation courses, and ultimately into student teaching. Each of these effects will require additional instrumentation, content area input, and feedback loop mechanisms. While this may be time consuming and somewhat slow, it is the only reasonable way to proceed. A second area of involvement will likely come from an extension of current follow-up efforts. A follow-up of students from graduate programs will be introduced this year as well as seeking responses from current employers of our recent graduates regarding their capabilities.

Existing instruments will continue to be refined and tested for quality. The quality of all new instruments will need to be ascertained and where they are found to be at an unacceptable level the instrument will need to be revised accordingly. With each step forward on the implementation process it will be necessary to devise an appropriate and reasonable feedback loop for use of data.

This crucial and time consuming process will need to be in place at each level of the system before we can moye the system forward.

We have only begun to scratch the surface on the data potential listed in the narrative section of the matrix. This rich data source will continue to receive limited attention unless additional resources can be obtained. Implementation of this aspect of the system is likely to proceed very slowly.

Additional research efforts are currently underway utilizing existing information in the data bank. Two studies, one involving information on the National Teachers Exam (NTE) and another examining the relationship between characteristics of entering freshmen and whether or not they stay in teaching are currently underway. Additional research needs to be initiated in this area and we will be attempting to stimulate such research. Efforts are currently underway to pursue external funding to pursue these and other efforts.

An area that is critical to the ultimate success of the student information system is the information storage and retrieval capabilities of the system. The computer system is currently in its infancy and unless the system matures rapidly, the "parents in the neighborhood" may not let the infant grow to maturity. A long term and short term strategy has been developed to help get the system developed. The long term strategy is designed to create and utilize a self contained mini computer to store, retrieve, analyze and produce reports from data collected through SIS in a very flexible fashion. The short term strategy is to collect the data and crudely store it while the long term programs are being developed. In the short term, all data analyses, manipulation and reporting will be done via other mechanisms (e.g., batch processing on a large main frame computer). This mechanism, while not highly efficient, is functional.

By far the largest concern for the system lies in the area of utilization of information. The data generated by and through the system needs to be

provided in a timely, appropriate and useable fashion. The information also needs to be used in consistent and appropriate fashion by decision makers within the college. As the system is relatively new it is difficult to determine the extent of current utilization. However, there are a few positive indications of use of information generated through the systems. We will be spending considerable energies in this area in the next year for this, more than anything else, will signal the degree of success in implementing the system. Utilization is clearly linked to the administrative elements, the interpersonal elements, and the methodological elements.

As discussed in an earlier paper, the interpersonal aspects of implementing an evaluation system need to be carefully and consistently addressed. Therefore another major block of time will be allocated to interacting with different levels of key actors in a wide variety of contexts. This time consuming effort will be sustained and perhaps increased, because without this effort the probability of success is limited.

It would seem that after the discussion of specifics, a return to the more general status may be appropriate. As one reflects on the four basic purposes of the system, namely:

1. to collect data about our students and programs for use in the evaluation of both graduates and programs;
2. to provide data for use in student advising, counseling, and remediation;
3. to provide a data source for research on the nature and the development of teacher education students and programs as well as other professional education personnel programs;
4. to document student experiences for accountability and accreditation purposes.

Of the initial four purposes, none have been completely met. Numbers one and four have met with some success as we have moved forward with implementation. However, success in each of these can only be determined after more of the system has been put in place. With respect to purpose number three,

the seeds of research are beginning to germinate and sprouts of research activity are beginning to bud. It is far too early to see the products of any research efforts. Finally, progress on purpose number two has been quite limited. Given the current resources and the present direction of the system, progress in this area will continue to move at a snail's pace. The reader should not interpret this status picture of the purposes as negative. Rather it should be interpreted as hopeful and positive. Good progress is being made and positive things are happening. It is early in the life of this system and we are excited about its future. With continued attention and support the SIS will be a highly functional and successful element integrated into the regular operations of the College of Education. Only time will tell if we have the energy, capability and leadership necessary to make these ideas into reality. We will continue to move forward, one step at a time. Our implementation process will be planned and deliberate. We realize that this process will take time, but if current status is any indication of future success, then our future will be quite successful.

APPENDIX A

Names and Addresses of Panel Presenters and Reactors

Presenters	Addresses
Russell J. Spillman, Acting Dean College of Education The Ohio State University	227 Arps Hall 1945 North High Street Columbus, Ohio 43210
Nancy L. Zimpher, Coordinator Program Development College of Education The Ohio State University	118 Arps Hall
William E. Loadman, Coordinator Measurement and Evaluation Services College of Education The Ohio State University	202 Arps Hall
Ann L. Schreck, Graduate Research Associate College of Education The Ohio State University	Suite 250 1250 Chambers Road Columbus, Ohio 43212
Penelope A. Reighart, Graduate Research Associate College of Education The Ohio State University	146 Arps Hall
Zelda J. Holcomb, Graduate Research Associate College of Education The Ohio State University	146 Arps Hall
Peter S. Lemish, Graduate Student College of Education The Ohio State Univeristy	255 North Michigan Street, Apt. 106 Lawrence, Kansas 66044

Reactors	Addresses
Donald J. Freeman, Senior Researcher Institute for Research on Teaching and Co-director, Office of Program Development	University of Michigan 261 Erikson Hall East Lansing, Michigan 48823
Danial Stufflebeam, Professor of Education and Director of the Evaluation Center	Western Michigan University Kalamozoo, Michigan 49008

APPENDIX B

Freshman Early Experiencing Program
Exploration Profile

(FEEP Version of the TCP)

FRESHMAN EARLY EXPERIENCING PROGRAM
THE OHIO STATE UNIVERSITY

Autumn, 1982

EXPLORATION PROFILE

Qtr/Yr _____

Student's Name _____

Signature _____
(person completing form)

Blue - Cooperating Teacher
Yellow - FEEP Instructor/Seminar Leader
White - FEEP Student

Instructions for use:

This form is intended to point out strengths and needs of potential teacher candidates in order that they can plan for further development in later professional courses and experiences.

Comments will be useful to students and instructors, but will not be accommodated on the computer sheets.

A. Basic FEEP Outcomes: The Student:

	explored one or few of the opportunities available in the setting				explored all possible opportunities in the setting
1. Exhibited exploratory behavior directed toward discovering a wide variety of teacher roles and responsibilities, i.e., sought out and took advantage of opportunities.	1	2	3	4	5
Comment: _____					
	low participation in available settings				high participation in available settings
2. Participated in a variety of teacher roles and responsibilities; followed through on opportunities.	1	2	3	4	5
Comment: _____					

Items 3-16 should be assessed relative to the level expected of a first year teacher education exploration student.

	needs substantial development	needs development	meets basic expectations	exceeds basic expectations	greatly exceeds expectations
3. Displayed initiative in completing tasks once a responsibility had been accepted, i.e., independent, responsible.	1	2	3	4	5
Comment: _____					
4. Displayed initiative in taking on routine tasks, i.e., tasks did not have to be pointed out; had no need to remind.	1	2	3	4	5
Comment: _____					
5. Organized tasks in order to ensure completion of all responsibilities, i.e., divided and ordered tasks; prioritized responsibilities.	1	2	3	4	5
Comment: _____					
6. Exhibited professional behaviors, i.e., was punctual, responsible; observed confidentiality; used appropriate language.	1	2	3	4	5
Comment: _____					
7. Appearance was appropriate to the setting, i.e., was healthy, clean, neat.	1	2	3	4	5
Comment: _____					

	needs substantial development	needs development	meets basic expectations	exceeds basic expectations	greatly exceeds expectations
	1	2	3	4	5

B. Basic Communication Skills: The Student:

8. Exhibited basic reading skills, i.e., was fluent, accurate, appropriate to setting.

   Comment: _____

9. Exhibited effective writing skills, i.e., was logical, clear, appropriate to setting.

   Comment: _____

10. Demonstrated expressive speaking ability, i.e., was audible, appropriate to setting, appropriate pace.

    Comment: _____

C. General Teaching Skills: The Student:

11. Exhibited clarity, i.e., ideas, thoughts, and activities were expressed in ways that were clearly understood by pupils.

    Comment: _____

12. Exhibited enthusiasm, i.e., displayed personal commitment to course content and excitement about teaching.

    Comment: _____

13. Established effective profession, interpersonal relationships, i.e., interacted openly, developed rapport with both teachers and pupils.

    Comment: _____

14. Evaluated own performance and responded to advice, i.e., made objective and rational criticism of own performance and used advice to modify behavior.

    Comment: _____

15. Is able to describe differences among students' characteristics and needs and to explain reasons for individual student's behavior.

    Comment: _____

16. Is able to describe several ways in which two or more teachers' styles are alike and different, i.e., directive vs. non-directive, view of learners, preferred strategies, preferred modes of control.

    Comment: _____

	Yes, within the school setting	Yes, outside the school setting	No
	1	2	3

D. Setting

17. Did extenuating circumstances exist which influenced the student to perform at a lower level than would otherwise have been likely?

    Comment: _____

E. Overall Performance

18. Relative to the level expected of an individual whom you would recommend with no reservations to continue in teacher education, the student's overall performance in this field experience.

Comment: _____

_____

_____

needs substantial development	needs development	meets basic expectations	exceeds basic expectations	greatly exceeds expectations
1	2	3	4	5

F. Suggestions for Growth

APPENDIX C

Professional Introduction
Teacher Candidate Profile

Professional Introduction
Teacher Candidate Profile

Spring, 1982

Instructions for use:

This form is intended to be an overall appraisal of the teacher candidate's attitudes and abilities related to teaching as observed during the PI teaching experience.

The Guiding Remarks are intended to supply further interpretative information relating to each criterion appraisal.

The Comments space is for recording details which help specify a problem area. You are encouraged to make a comment for all low ratings.

SSN _____ Qtr/Yr _____

TC _____

School/Field Placement _____

CT _____

Blue - Cooperating Teacher (CT)
Yellow - PI Instructor (IN)
White - Teacher Candidate (TC)

A. BASIC SKILLS

Guiding Remarks

1. TC displayed basic reading skills required for a potential teacher.
   - Oral reading to class was:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Fluent and expressive

   - Analysis and comprehension of reading was:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Verbal demonstration of accuracy of understanding of what is read.

2. TC displayed basic writing skills required for a potential teacher.
   - Written expression skills were:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Includes all student prepared handouts and other public writings.

   - Handwriting skills were:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Public writings on blackboard, handouts, pupil's work.

3. TC displayed speaking skills required for a potential teacher.
   - Diction was:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Manner of expression in words.

   - Audibility was:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Loud enough to be heard by all of class.

   - Expressiveness was:

   inadequate 1 2 3 4 5 outstanding

   Comment: _____

   Use of varying pitch and intensity of expression.

B. GENERAL SKILLS

4. Clarity:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Ideas, feelings, thoughts and activities expressed in a way that was clearly understood by pupils.

5. Enthusiasm:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Displayed personal commitment to course content and excitement about teaching.

6. Time management:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Management of student time to promote high quality, on-task student behavior.

7. TC personal interaction skills:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Ability to interact productively with both teachers and pupils.

8. TC is self critical and responds to advice:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Does the student make objective and rational criticism of own teaching and modifies teaching behavior following advice.

9. TC planning skills were:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Ability to plan lessons which demonstrate both detail and logic in content and organization.

10. TC work adjustment was:

inadequate 1 2 3 4 5 outstanding

Comment: _____

Student was punctual, completed assignments carefully and correctly and behaved and dressed appropriate to the norms of the school.

C. OVERALL JUDGMENTS

11. In terms of teaching difficulty the setting was:

very difficult 1 2 3 4 5 very easy

Comment: _____

Make a judgment on difficulty to teach the class as it relates to pupils-their behavior; their attitude to learning; size of class; ability range.

12. The overall teaching performance for the TC in this unit was:

inadequate 1 2 3 4 5 outstanding

Comment: _____

A rating of '2' would be considered to be 'at risk'.

APPENDIX D

Critical Event Form

The Critical Event in PI

Remember last year in FEEP you completed experience report forms (ERF's) frequently throughout your program? Well the ERF's were a type of critical incident record. The use of the CI technique in PI has some similarities and some differences to the ERF's you used in FEEP.

Explanation

A Critical Event is an incident that has special meaning to you. More specifically it refers to your involvement in and reaction to a professional activity which had a significant impact upon you. Such events will evoke feelings and thoughts and often learnings and/or insights. Through such incidents we begin to see ourselves as persons and as educators in a different way.

As examples of Critical Events, consider the following:

- in your first peer teaching activity you felt successful because you discovered that you can communicate and help persons learn something new.
- an exchange with a group of eighth graders made you fearful about your ability to deal with peer pressures and adolescent group activity.
- a class discussion has made you reconsider your opinion regarding the importance of basic skills in education

Understanding the Critical Events which take place during the education of teachers is especially important to us and also valuable for you in developing greater understanding of your personal and teaching roles.

Each week during PI we would like you to complete a Critical Event Form. Keep the forms yourself and at the end of the term select the most significant event and give your instructor a copy. This one Critical Event Form will then be filed with SIS.

P.I. CRITICAL EVENT FORM

Name: _____

Social Security #: _____

Date: _____

Place the event happened:

People who were involved:

Date and Event:

What Happened (keep it short):

Why is this Event so important to you? (Try to identify an emotion or feeling here, like, "I was the proudest I've ever been"; "I was scared to death".)

Please keep a copy yourself and give a copy to your P.I. instructor.