

1975


## The Effects of a Performance-Based Training Program on Subsequent Teacher Effectiveness as Rated by School Principals

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THE EFFECTS OF A PERFORMANCE-BASED  
TRAINING PROGRAM ON SUBSEQUENT TEACHER  
EFFECTIVENESS AS RATED BY SCHOOL PRINCIPALS

A Thesis

Submitted

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education

UNIVERSITY OF NORTHERN IOWA

by

Joel Christian Ortéga

August 1975

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**Entitled:** The Effects of a Performance-Based Training Program on  
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THE EFFECTS OF A PERFORMANCE-BASED  
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Abstract of

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## Abstract

Introduction. The Performance-Based Teacher Education movement is attracting an increasing number of followers. Although there are many concerns yet to be revised, the potential advantages render this one of the most promising educational movements of recent times. Since the movement is somewhat in its beginning stages, the major impact of this type of program is yet to be determined.

Problem. Many teacher education institutions, recognizing the problems that are in the traditional approaches to teacher education, have already begun to study and change their programs and courses toward a Performance-Based Teacher Education program.

This being a relatively new approach to teacher education, data based knowledge is needed concerning this type of program. There is an immediate need for techniques which would allow skills the trainees possess to be evaluated, and also techniques which would provide training in those skills that are lacking in the trainees.

Procedures. A questionnaire was sent out to principals of twenty-nine teachers in the Blackhawk and Buchanan counties in Iowa, who had completed either a tutorial practicum (one to one student-child relationship) or both a tutorial and group practicum at the University of Northern Iowa. The questionnaire consisted of fourteen questions. The principals were also asked to write statements with regard to what they perceived as a major part of evaluation concerning teachers, and were lacking in their respective teachers being surveyed.

The results of the questionnaire were analyzed by comparing the two groups using the most appropriate statistic; the Mann-Whitney U test for significant differences, and a Chi-square test of "goodness of fit."

Results. A little over 82% of the questionnaires sent out were returned. Differences between the two groups which were significant beyond the .05 level were found, with higher ratings being given to the group of teachers who had taken both Phase I and Phase II.

The chi-square test of "goodness of fit" yielded a significant 120.27, and was rejected at the .001 level with three degrees of freedom. Overall, the total population of subjects showed a higher rating than was expected of a normal population.

Conclusions. The conclusions reached were that the majority of teachers who experienced either the tutorial practicum only or the tutorial and group practicum were perceived by their principals as above average teachers on the criteria rated. Teachers who successfully completed both the tutorial and group experiences were considered by their principals to be significantly better teachers (as defined by the questionnaire) than those who only received the tutorial experience.

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## CHAPTER ONE

### INTRODUCTION, PURPOSE, AND DEFINITION OF TERMS

#### Introduction

Performanced-Based Teacher Education is developing into a viable movement to improve the professional preparation of educational personnel. This movement encompasses all levels of education (Schmieder, 1973). The competencies to be acquired are explicitly known to both learners and instructor, and are defined in terms of the teacher's professional role.

The learner is held accountable for attaining a given level of competency in performing the tasks of teaching, not for the traditional passing grades in specified college courses. The teacher educator is held accountable for specifying, testing, and revising objectives as well as developing many learning experiences which facilitate student achievement of the objectives.

The emphasis is away from the more traditional cognitive objectives, such as knowledge and intellectual abilities, and toward performance objectives in which the student demonstrates professional ability to bring about change in others (Houston, 1973).

To state it plainly, in a Performance-Based Teacher Education Program, the learner is accountable for attaining competence in teaching, while the institution and the teacher educator are held accountable for producing competent teachers.

### The Problem

Statement of the problem. In theory, teacher trainee evaluations should function to determine the degree to which new teachers are capable of assuming classroom responsibilities. But, according to Bonchard and Hull (1970), some teachers secure jobs in schools and function successfully, regardless of their student teaching marks and/or recommendations of college supervisors and cooperating teachers. Some successful beginning teachers also stated that they have never had student teaching. Maybe, the evaluations of teacher trainees do not truly reflect the degree to which they are capable of assuming classroom responsibilities. It is also possible that teacher trainees are evaluated on criteria other than those which appear on evaluation forms at their respective institution's placement bureau.

Many teacher education institutions, recognizing the problems that are in the traditional approaches to teacher education, have already begun to study and change their programs and courses toward a Performance-Based Program. Since this is a relatively new approach to teacher education, data based knowledge is needed about the link between teacher behavior and student behavior. There is an immediate need for techniques to permit the assessing of skills the trainees possess, and to provide training in those skill areas where the trainees are lacking.

Aubertine (1973) states that many educators have been following a pragmatic course in research in teacher education, rather than a deliberate and systematic approach. Because of this, research gathered by educators seems to be bits and pieces of random data.

If education is to have a place with other recognized fields of inquiry, then establishment of itself through some kind of disciplined order in the field is necessary. For example, education should begin by developing models which can integrate educational theories with empirical data.

Many other scientific fields today have surpassed education in the area of sophistication in research. The reason for such advancement is the use of approximation of models in order to organize what is known about something. Then by the process of formulating, trying out and reformulating approximation models, many other fields of science have created a method for research. Through this procedure, they have managed to avoid fragmented results.

Although laboratory research would have a place in a Performance-Based Teacher Education Program, the major emphasis should be in the field, with as much work as possible being done in the context of ongoing teacher education programs. It may also be argued that standards have a better chance of being raised, since the research would be aided by classroom reality.

One reason for training teachers is to help them facilitate the educational growth of students in the classroom. The dissatisfaction which prompted the present move toward Performance-Based Teacher Education arose from serious doubts about the procedures currently available to classroom teachers.

#### The Purpose

Statement of the purpose. The major purpose of the study was to find out how present teachers who have participated in the University

of Northern Iowa (U.N.I.) Performance-Based Teacher Education Program in Special Education were rated on teaching effectiveness by their school principals. To accomplish this purpose, the following objectives have been established.

1. To obtain rating information on University of Northern Iowa special teachers as perceived by their respective principals.
2. To compare the ratings of University of Northern Iowa special students who have only completed Phase I against University of Northern Iowa special teachers who have completed both Phase I and Phase II.

#### Definition of Terms

Within the context of the present study, the following terms are defined:

Category. An easily recognized major function or duty of educational personnel under which related performance elements may be identified and classified (Peter, 1972).

Cluster. A compatible grouping of related performance elements brought together for greater meaning and understanding (Peter, 1972).

Competency. Achievement of specific requirements needed (Peter, 1972).

Modules. Sets of learning activities designed to assist the student in achieving pre-specified objectives (Peter, 1972).

Performance. An action or motion regarding some task or activity, implying not random movement but rather a disciplined and orderly flow in which there is present some constant providing structure to, and continuity within an action (Peter, 1972).

Phase I. A one semester experience at U.N.I. where teacher trainees demonstrate their teaching competencies in a one-to-one

tutorial setting under supervision of the U.N.I. staff of the Division of Special Education (Appendix B).

Phase II. A one semester experience at U.N.I. where teacher trainees demonstrate their teaching competencies in a classroom or group situation under supervision of a classroom teacher and U.N.I. staff of the Division of Special Education (Appendix B).

System. A collection of interrelated and interacting components which work in an integrated fashion to attain predetermined purposes (Peter, 1972).



## CHAPTER TWO

### THE REVIEW OF THE LITERATURE

#### An Understanding of the Need for Performance-Based Education

For a long time in education, schools have been a vehicle used by society to produce behavior change in pupils. With a few exceptions, the functioning of the school has then replaced change in pupil performance as the focus of attention. Although there is a diversion of attention to means rather than ends, there is a long history of concern for the ends as defined by performance; Horace Mann (1891) called the attention of educators to some of the problems related to assessing performance over seventy-five years ago.

Any teacher who has asked a pupil to perform a task has shown a concern for performance. In 1942, Tyler proposed evaluation on the basis of asking the student to do those things set forth in behaviorally stated terms. This concern for measurable performance, which is directly related to the problem of assessment of teacher competencies of today, can be found in a statement by Judd and Monroe (1918). They stated that the time was rapidly passing when the reformer could praise his new devices and offer as the reason for his satisfaction, his personal observation of what was accomplished. They also stated that the superintendent who reports to his board on the basis of mere opinion is rapidly becoming a relic of an earlier and unscientific age. There were also indications that even the principals

of schools were beginning to study their schools by exact methods and were basing their supervision on the results of their measurements of how their teachers perform.

In the education of teachers, Olson (1972) has observed that in terms of both content and process, general studies often fail to provide students with opportunities to experience what is involved in decision making and choice, the establishment of meaning, the use of evidence and logic, and collaboration toward approximate goals. Instead they afford narrow formalized introductions to a string of disconnected subjects superficially considered through emphasis upon classification systems. Hemsing (1970) also puts down the liberal arts faculty because he believes that their curricula are not relevant as far as life purposes are concerned.

Experimentation with Performance-Based education in recent years has come primarily from the United States Office of Education, state departments of education and from some professional educators in higher education. The list of publications and conferences sponsored by The American Association of Colleges for Teacher Education indicates that specialists involved in the pre-and in-service education of teachers are beginning to attend to the potential usefulness of Performance-Based Teacher Education Programs and to debate some of its controversial concepts (Elam, 1971).

College faculty members responsible for the subject matter fields are recognizing the Performance-Based Education has the potential to revitalize general education, to redefine the teaching major and minor, and to reform graduate or undergraduate education. Olson (1972) points

out that because the present system of certification is ineffective in the selection of "good teachers," Performance-Based Teacher Education offers state departments of education a tool with which to bring college, school and community together to establish new kinds of certifiable teacher education programs which are successful in attracting and educating effective teachers.

Another reason that has brought about a change toward Performance-Based Education has come through the behavioral sciences. With an increased awareness of individual learning styles, teacher educators are beginning to examine the feasibility of designing programs that allow for individual differences.

Another area that has had an effect on the Performance-Based movement is the field of Systems Analysis. The nature of Systems Analysis shows a need to define the goals of a given program. For this reason, the Performance-Based education can provide feedback in the form of evaluation to bring about modification, by using the pre-test, post-test approach of Systems Analysis to prescribe lessons.

As a result of studies done by Tyler (1950), Popham (1969) and Cagne (1965), there has been a movement toward attempting to describe what students will do as a result of instruction. These researchers unanimously maintain that if learning is to be defined as change in behavior, then a teacher should be able to specify the desired change and determine if the learner has changed his behavior.

The roots of Performance-Based Teacher Education seem to have started with the introduction of microteaching at colleges and universities. There were also early techniques of assessing instructional

performance by using videotape to observe strengths and weaknesses during practice teaching sessions. These experiences were done together with the methods courses. In the early 1970's systems designs with specific objectives were applied to teacher education. Also, electronic gadgets were used to individualize instruction (Peter, 1972).

#### Significant Literature on the Description of Performance-Based Teacher Education Programs

Performance-Based Teacher Education has enjoyed a great deal of exposure and dialogue for the past three years. The public schools have discussed the idea using the terms "accountability" and "performance contracting." Many schools over the country have experimented with having industries contract to get the pupils in public schools to achieve specific performance goals through accountability methods. The Texarkana school system has received a great deal of attention in this area (Robinson, 1970).

A Performance-Based Teacher Education Program should include at least three elements. They are behavioral objectives, activities designed to fulfill the objectives and an evaluation of the trainee's performance. The behavioral objectives should be carefully written from the trainee's point of view so that they can be evaluated by the trainee himself and by the professor. Many of the teaching objectives, up to this time, have been very general in nature and they were of little use to both the trainees and to the teacher in guiding behavior for the trainee.

There seems to be a general consensus regarding the characteristics of a Performance-Based Teacher Education Program. The essential

characteristics are as follows:

1. Teaching competencies to be demonstrated are role-derived, specified in behavioral terms, and made public.
2. Assessment criteria are competency-based, specify mastery levels, and are made public.
3. Assessment requires performance as prime evidence and takes student knowledge into account.
4. The student's rate of progress depends on demonstrated competency.
5. The instructional program facilitates development and evaluation of specific competencies.

Many other characteristics are deemed necessary based on observations by professional practitioners. Weber (1971) describes a Performance-Based Teacher Education Program as one in which the competencies to be demonstrated by the student and the criteria to be applied in assessing the competencies of the student are made explicit, and the student is held accountable for meeting these criteria.

Howsman (1972) states that this type of teacher education is the application of the principles and practices of performance-based instruction to teacher preparation. He believes that this type of teacher preparation has four essential elements which are (a) precise objectives stated in behavioral terms, (b) performance criteria, indicators of performance and modes of assessment, and criterion levels specified and made public along with objectives, (c) instruction pertinent to the criteria, and (d) learner accountability in terms of the criteria.

Andrews and Allen (1972) believes that Performance-Based Teacher Education refers to programs that are (a) field centered, (b) indivi-

dualized, (c) based on specific performance criteria, (d) controlled by a consortium made up of representatives of at least such organizations as colleges, universities, professional teacher organizations, and representatives of the schools involved.

Cooper and Weber (1971) notes that in a systems approach to education, the components of a program must be devised from its objectives and that they are designed specifically to formulate the achievement of the program's objective. If this is so, then objectives cannot be stated vaguely since the design depends upon the objectives of the program. The use of behavioral objectives make it possible to determine whether the processes of the program are accomplishing what they are designed to accomplish.

Darcy (1971) describes the primary objective of a Performance-Based Teacher Education Program as the improvement of the education of prospective teachers for contemporary society in a way which will have an immediate effect as well as a long term effect on the public education of children and youth in our society.

Potter (1973) sees Performance-Based Teacher Education Programs as behavioristic in nature in that it regards the teaching process as essentially a behavioral process. That is, he believes that teachers have an effect on their students through their own behavior. Performance-Based Teacher Education makes use of behavioral objectives to communicate to the prospective teacher exactly what is expected of him. The use of behavioral objectives in such a program publicly indicates what the learner will be like as a result of instruction. By using behavioral objectives, evaluation becomes an integral part of the

teacher's growth, not simply a final examination that tests the acquisition of what the students know.

Implied characteristics of such a program include the individualization, personalization, and modularization of instruction, feedback guiding the learning experience, emphasis on exit requirements, and the learner completing the program only after he demonstrates competencies identified as requisite for a particular professional role. Desirable characteristics include a program that is field-centered featuring both teacher educator and learner input in the design of the instructional system. Diagram number one will describe a complete version of the conceptual model of a Performance-Based Teacher Education Program (Elam, 1971).

The acceptance of this model is having a great impact on teacher education institutions. They no longer expect automatic teacher certificates for their graduates' certification being granted only after competence is proven. Any overlapping content, overemphasis on instructor's pet ideas, and abstract discourse would give way to a more systematic approach. The new approach involves management of the teacher education program in such a way that the institution is simultaneously dealing with all of the elements that comprise the teacher education program (Houston, 1972).

Teacher education institutions must be aware of the implications of a decision to develop performance-based field-oriented teacher education programs (Giles and Foster, 1972). The administration must have a special commitment to resolving the problems associated with the field-centered aspects. The faculty must identify and organize

competencies necessary for an outstanding teacher, assume the role of developer and coordinator of experiences and activities leading to the role of teacher, and be involved at both campus and field centers so theory and practice integrate.

The student must be willing to be judged on his competence which entails a realistic appraisal of past experiences and selection of programs that build on already acquired competencies. Only through cooperation of students, faculty, and administration will the teacher education program work at its best.



Table 1. Conceptual Model of Performance-Based Teacher Education.

ESSENTIAL ELEMENTS	IMPLIED CHARACTERISTICS	DESIRABLE CHARACTERISTICS
1. Teaching competencies to be demonstrated are role-derived, specified in behavioral terms, and made public.	1. Individualization	1. Field Setting
2. Assessment criteria are competency-based, specify mastery levels, and made public.	2. Feedback	2. Broad Base for Decision Making
3. Assessment requires performance as prime evidence, takes student knowledge into account	3. Systematic Programs	3. Protocol and Training Materials
4. Student's progress rate depends on demonstrated competency.	4. Exit Emphasis	4. Student Participation in Decision Making
5. Instructional program facilitates development and evaluation of specific competencies.	5. Modularization	5. Research-Oriented and Regenerative
	6. Student and Program Accountability	6. Career-Continuous
		7. Role Integration

Some teacher education institutions using a Performance-Based teacher education program report tentative observations indicating advantages over the traditional program. Weber State College started a Performance-Based Teacher Education Program in 1970. Initial student reaction varied from enthusiasm to rejection. Tentative conclusions regarding the Weber State program are: Students and faculty are working harder than previously, students are learning more teaching skills than previously, the student-faculty relationship is friendlier and more cooperative, and students willingly accept and carry out responsibility for decisions concerning their own preparation (Burke, 1972).

The University of Nebraska found that its secondary level teacher education students liked the Performance-Based Teacher Education Program better than traditional instruction and were also able to achieve more. Cooperating teachers reported that student teachers completing the Performance-Based Teacher Education Program used a wider range of teaching behaviors and employed more innovative techniques than did student teachers who completed the traditional course requirement sequence. The University of Nebraska teacher education students generally found student teaching to be an excellent experience but many rated their Performance-Based experiences even better than student teaching (Sybouts, 1973).

Performance-Based Teacher Education is having great impact on state education departments, especially as it concerns certification of teachers. Teachers have been certified after a review of college transcripts verified the successful completion of courses with specified titles plus the receipt of appropriate degrees. The assumption was

that this bureaucratic process distinguished those persons who are qualified to perform as teachers from those not so qualified. Certification agencies have not been completely satisfied with this approach but have been reluctant to voice their misgivings due to uncertainties involved in a more direct form of teacher evaluation (Daniel, 1971).

Recent pressures for credibility and accountability have, however, removed much of the reluctance and stimulated these professionals and agencies to aggressively seek new certification approaches. The approach sought by many is one of certification based on performance as well as consideration of educational attainment and knowledge. Addition of performance criteria is supposed to bridge the gap between theory and practice and provide more competent teachers.

New York State is one of the leaders in the performance-based certification movement, with present plans being to move to the performance end of the certification continuum. Commissioner Nyquist (1972) indicated that the state education department's dissatisfaction with current certification practices when he noted that the present system of certification is archaic and really does not tell us much about the prospective competence of teachers. He also felt that future certification should depend on performance over a period of time and that the current goal was to establish a system of certification by which the state can assure the public that professional personnel in the schools has possessed and maintained demonstrated competencies with which to enable children to learn.

Developmental activities toward this goal include the funding of twelve trial projects to develop Competency-Based Field-Centered Teacher

Education Programs, participation in a multi-states consortium on Competency-Based Teacher Education, establishment of two competency-based education centers, and publication of a competency-based certification newsletter (Houston, 1973).

Performance recertification is also receiving attention in some states. The Arizona Board of Education (1972) indicates that it has not found evidence linking teacher's experience and advanced degrees to student achievement. This dissatisfaction with current certification practices led to finding a recertification model based on performance criteria. They indicate performance based recertification will cause an emphasis on viable in-service training, self-evaluation, and growth for every teacher of every child.

If adopted, the effect on higher education will be profound. Performance recertification does not imply a lack of potential value in higher education courses; it does imply that colleges of education will develop courses which teachers will demand because the content is needed. Courses depending on enrollment generated by the Board of Education recertification requirements, rather than genuine teacher demand will meet their just demise.

An Understanding of Some of the Positive and  
Negative Aspects Concerning  
Performance-Based Teacher Education Programs

Although there are questions which have not been satisfactorily answered about Performance-Based Teacher Education Programs, especially those dealing with a valid criteria for evaluating effectiveness and those regarding the relationship between teacher behaviors and pupil

learning, there are a number of advantages in using it (Elam, 1971)

Among the more promising are its attention to individual needs and abilities, its focus on objectives, its emphasis on the sharing process by which objectives are formulated and used as a basis for evaluation, its efficiency enhanced by feedback, and accountability for both programs and students.

Many educators who are behind the Performance-Based Education Programs have shown a willingness to explore the implications of such a program and also a willingness to observe skepticism about this reform in education. Weber and Cooper (1972) have noted that Performance-Based Teacher Education Programs are primarily achievement-based and not time or experience-based. But Boudy (1972) has demanded that the advocates of this new program answer his charge that Performance-Based Teaching Programs are in danger of capturing everything except what is most significant in many kinds of learning, which is, significance. However, the advocates of Performance-Based programs acknowledge gaps in their knowledge base, particularly in the area of measurement and also an inadequate philosophical base (Elam, 1971).

Performance-Based Teacher Education Programs offer explicit statements of its educational objectives and takes into account the specific needs and interests of students as they have expressed them. It uses the school, community and society as an essential resource in the educational program. It helps students to know exactly what is expected of them in any module of work. Students can proceed at their own pace until a technique is mastered. It also established a continuing process of evaluation and assessment in order to maintain a program in which students can learn readily and successfully. By stressing the end

product, by emphasizing the importance of both class and field work, it encourages individuals to continue their education and prepare for new careers.

Students play an active role in Performance-Based Programs. This is done by the students' accountability for demonstrating competencies. Prespecified competencies would have to be met before the course, unit, or module is completed. In such a case, students can no longer get a below average grade in their courses. Concomitant with the the students' accountabilities is the emphasis on exit requirements rather than entrance requirements. It is an open-systems approach which begins by identifying and mapping the repeated cycles of input, transformation, out-put and renewed input which comprise the organizational pattern (Katz and Kahn, 1972).

Students develop competencies at their own rate. This is facilitated through the development and student use of instructional modules. Since a student works at his own pace on a module, he is no longer locked into the semester or quarter system. Because the system is self pacing, time is not the constant as before. Learning becomes the constant and time becomes the variable.

Silberman (1965) in his book Crisis in the Classroom, notes that a major criticism of the educational system today is the mindlessness which permeates the entire system. Too often things are done with no clear understanding of the rationale behind them. A Performance-Based Program with its explicitly stated objectives, can afford the student an opportunity to undergo meaningful learning experiences. This type of program is geared to recognize the uniqueness of individuals and

provides them with alternative routes to reach the program objectives. No longer is a student locked into a series of lectures or a particular textbook. Personalization of instruction permits a student, with the help of advisors, to tailor his or her program.

Burker (1972) states that Performance-Based Teacher Education Programs can create a liberating environment for teacher candidates. It tends to have the philosophical aim of restoring the capacity to contend with the world on equal terms. He also stated that this restoration was the overall goal of a Performance-Based Teacher Education Program. Maloney (1972) explains that the issue appears to be "to plan or not to plan," when actually it is a refusal to accept a restrictive, inadequate planning methodology in place of a creative, flexible approach.

One must also be aware of the critics of the non-basic approach to education. Most of these critics believe that the theoretical approach as opposed to the behaviorist point of view, which is evident in behavioral objectives, does not place enough emphasis on the affective domain for the trainee.

Nash and Agne (1970) seem to be most critical of the program. They believe that it underlines the status-quo and not provide for the creative work on the part of the trainee. They also believe that Performance-Based Programs emphasize the development of professional skills at the expense of the development of the areas of feelings, values, and attitudes. Nash (1971) also writes in Phi Delta Kappan, that the Performance Based Programs are rooted in positivism, pragmatism and technologism.

Hoetker, in 1972 noted that there was to imperical, objective

evidence that the application of systems technology to instruction would contribute significantly more to improving the effectiveness or efficiency of an educational program than would the installation of an official astrologer. Broudy (1972) also stresses that it is naive to attempt to reduce this welter of talk to overt performances that a teacher should be able to execute on demand.

There is also objection to the Performance-Based Teacher Education Programs due to the long standing academic distrust for reforms initiated by educational establishments. Henry (1972) reports that:

Neither psychologists nor logicians know what acts, strategies or operations are inherent in many gross or molar behavioral goals, concept development, critical thinking, or induction, and therefore authorities admit that they cannot delineate the design pupil behaviors that provide the preliminary acts (practice, if you wish) to bring about the desired behavior... Only behaviorists rush in where authorities fear to tread. (p. 24)

But advocates of the Performance-Based Teacher Education Programs have already admitted the current limitations in philosophy and knowledge of their program. And they urge subject matter specialists to help undertake research necessary to broaden the base and to develop satisfactory measures of assessment for the program (Elam, 1971).

The Middle States Association of Colleges and Secondary Schools in 1969 wrote that Performance-Based Education has an air of vocational orientation and it threatens the prospective teacher's broad and continuing exposure to the liberal arts and science. The association has also pointed out that:



Teaching, more than any other profession, is leveral education at work, simply given direction and insight by profession training. The danger for the student, especially toward the end of his course, is to let the wholly desirable fascination of his new professional orientation swallow up what should still be his primary concern: general or liberal education, for the teacher must first of all be an educated person. (p.37)

John Dewey (1897) wrote that there is a strong temptation to assume that presenting subject matter in its perfected forms, provides the royal road to learning. But there is no royal road to learning. Education, as a discipline, is the means as well as the end. The means become the end.

Horton (1972) also warns that education is not animal training. Education of a man is a human awakening. Education, he stresses, requires two aspects: (a) the acquiring of knowledge, and (b) discovering personal meaning for that information. Information in itself is reduced to the level of training. Only when individuals find the link between specific information and a significance or meaning in their personal experience can education be said to occur.

Hutchins( 1971) also points out that Performance-Based programs stress the skills needed to enhance the students' economic future in a tight job market, to the exclusion of real education born of understanding, which will enable the person to cope with life at various levels. When preparation for jobs take precedence over preparation for living, then education will be no more than vocational training.

At the present, objections to the Performance-Based Teacher Programs from subject matter specialists range from trivial to substantive. Better debates may develop when researchers in the field of education begin to take a hard look at this new type of program. Also much debate over this type of program will continue as educators are forced to face up to the demands of becoming more accountable to students, funding agencies and the public.

A Summary of the Review  
of the Literature

The review of the literature disclosed several important factors regarding teacher education today. It has made many educators aware that conventional teacher education training programs are somewhat inadequate to meet the needs of teachers. The quality of teacher education should be revitalized if teacher education is to show improvement.

The Performance-Based Teacher Education movement is very viable and attracting an increasing number of followers. Although there are many concerns yet to be resolved, the potential advantages render this one of the most promising educational movements of recent times. Since the movement is still somewhat in its beginning stages, the major impact of the program is yet to be determined. The Elam study (1971) lists the general advantages and visible results of the program. They are as follows:

1. Much greater performance flexibility, permitting students to progress at their own rate, with many alternatives and options.
2. Greater attention to specific skill training.
3. Greater congruity between the objectives and the evidence admitted for evaluation purposes.

4. Better rationalization of faculty decisions and demands affecting students.

5. Development of new facilities and technology required by Performance-Based Teacher Education Programs.

However, this program should not be viewed as the only way as far as the education of teachers are concerned. Schalock (1970) believes that Performance-Based Education is the second in three criteria approach toward teacher education. The first criteria is the teacher education program based on the acquisition of knowledge. The second criteria is that of performance. And the third, which is yet to be realized is the product criteria program.

Because of the short length of time since the conception of this innovative program, the author found research on Performance-Based Teacher Education very disappointingly scarce for a program that shows potential of being an integral part of teacher education for many years. Rosenshine and Furst (1971) sums up the frustration of looking for research on Performance-Based Education when they wrote that the educational researchers have not yet provided those who train teachers with a repertoire of teaching skills which indicates to a teacher that if he or she increases behavior X and/or decreases behavior Y, there would be a concomitant change in the cognitive or affective achievement of his students.

In concluding, a quote from Howsam (1972) about the Performance-Based Teacher Program seems appropriate. Howsam states that:

Probably no educational movement of recent times has shown so much promise as this application of a common principle...

competency-based instruction... simultaneously to practice in the schools and to the education of teachers for the schools. The prospects for teacher education seem nothing short of phenomenal.

(p. 33)

## CHAPTER THREE

### PROCEDURES

#### Introduction

The performance based model of training future special teachers is a very unique educational approach which is based upon a systems analysis to instruction. This approach has been found to be effective in the training of teachers to effect change in children (Peter, 1972). The University of Northern Iowa has adopted this approach to its Special Education Program.

Due to the recent introduction of accountability into the classroom, it is becoming increasingly important to determine whether the University of Northern Iowa's Special Education Performance-Based Program can help the special classroom teacher maintain a system of continuous monitoring and evaluating pupil performance. In order to accomplish this, principals working directly with graduates of the University of Northern Iowa Performance-Based Program were requested to rate these teachers on their teaching competencies. In this way the perceptions of school personnel concerning the teaching effectiveness of University of Northern Iowa special education graduates was determined.

#### Population

The population of the study consisted of classroom teachers in the area of special education and their building principals. The criteria for being classified as a special education classroom teacher in the study were as follows:

1. The teacher must hold a bachelor's degree or higher from the University of Northern Iowa (U.N.I.)
2. The teacher must be fully certified in a field of special education from the Iowa Department of Public Instruction.
3. The teacher must have taken either Phase I or Phase I and Phase II in Special Education from U.N.I.
4. The teacher had to be currently working full time in a school district.
5. The teacher had to be teaching in the school district for one half year or more.

The criteria for being classified as a building principal in the study were as follows:

1. The principal must hold an advanced degree from an accredited college or university.
2. The principal had to be certified as such by the Iowa Department of Public Instruction.
3. The principal must have been in charge of the school the teachers were employed in for not less than one year.

The reasons for having this group is to see how the principal rated competencies of the graduates of U.N.I. serving on his staff, since he is the consumer or the one who generally is involved in the hiring of the teachers in his building. The population was also limited to elementary and secondary principals and teachers who worked with the Area Seven Education Agency located in Iowa (Appendix D). Due to both the criteria used and the restricted area that was sampled the population was composed of twenty-nine teachers and twenty prin-

cipals. There were thirteen teachers who had completed Phase I only and sixteen teachers who completed both Phase I and II of the program at U.N.I.

The criteria delineated the population to be selected for the study, and had been met by all of the members of the population. The entire group consisted of six male and twenty-three female teachers. From the thirteen teachers who had completed Phase I only, there were three male and ten female teachers. Among the sixteen teachers who had completed both Phase I and Phase II, two were male teachers and fourteen were female teachers. The years of teaching ranged from one year to seventeen years of experience.

The selection of the subjects was not a random selection. The entire group meeting the population specifications were used and therefore no sampling information was needed.

#### Experimental Technique

The program under investigation in this study is the special education program at the University of Northern Iowa which is a non-categorical, performance-based program. This unique, multi-phase preparation program contains many features not found in more traditional teacher training programs. The program concentrates on developing teachers competent in the diagnosis and remediation of learning and behavior problems. It avoids teaching strategies according to diagnostic labels of children. Successful tutoring and group teaching of the handicapped student must be demonstrated in two one-semester experiences called Phase I and Phase II. Together with the practicum, emphasis is also placed on curriculum development and classroom

management techniques in other related courses.

Features of the Phase I experience:

1. Eight semester hours credit.
2. Trainee works a minimum of seventy-two hours in a one-to-one tutorial practicum under supervision of U.N.I. staff.
3. The trainee in the tutorial experience must: adequately diagnose the child's learning and/or behavior problems, prescribe an acceptable sequence of remedial activities, and successfully implement and evaluate teaching and management techniques.
4. Successful trainees advance to Phase II; those failing repeat Phase I or choose another career field.

Features of the Phase II experience:

1. Eleven semester hours credit.
2. Trainee extends Phase I skills with a minimum of ninety-six hours of teaching in group practicum under supervision of the classroom teacher and U.N.I. staff.
3. Trainee in the group experience must: adequately diagnose learning and/or behavior problems, successfully prescribe, implement, and evaluate acceptable remedial strategies, and successfully implement, maintain, and evaluate management techniques.
4. Successful trainees advance to student teaching; those failing repeat Phase II or choose another career field.

#### Specification of Variables

In this study the independent variable under investigation is the University of Northern Iowa training program, and more specifically the Phase I only or Phase I and Phase II course work. The dependent



variable under investigation is teacher ratings given by principals.

### Research Design

The various phases of the research process can be brought under control by a plan of design. The design to be used in this study is the Ex Post Facto or "after-only" study design. This design was used since the treatment of the data is descriptive in nature with attempts to attribute findings to associated variables. Hence, this is a study of what actually existed at the time the research was being done. This design is often used in education for assessment studies, status studies, and also in some case studies.

Advantages and limitations of using the Ex Post Facto Design: The survey or descriptive study is a process for learning pertinent information about an existing situation. The main device for gathering data from people involved is by the questionnaire methods or from summaries or available documents. The survey frequently becomes more than a mere fact-finding device. It may result in important hypotheses or conclusions that help to solve current problems, and it may provide basic information for comparison studies and for identifying trends. This design also helps to pool divergent ideas, techniques and bits of information, thus throwing light upon existing conditions in need of change and improvement.

A major limitation of this survey design is that it can tend to be composed of a loose confederation of several cells of ideas related or unrelated to each other. This characteristic lends to a study the impression of size and quantity which might seem to the reader more convincing than valid.

### Instrumentation

The evaluation instrument surveyed the population of principals on fourteen major professional functioning items on a five point scale of their designated teachers in the field of special education. Perception of the adequacy of preparation of their teachers for the teaching task, based on most features of the Phase I experience (Appendix B), was indicated by the first seven items on the evaluation instrument.

Items eight through fourteen dealt with the principals' perception of their teachers concerning the adequacy of preparation for the teaching task based on most features of the Phase II experience (Appendix B).

Three written statements, regarding what the principals perceived as a major part of the evaluation concerning the teachers, but were not included in the investigation itself were asked for in item fifteen of the evaluation instrument.

The content of the questionnaire was developed by the conclusions made by prominent educators in the field, such as Elam (1971), Howsam, Okey, and Brown (1972), and Popham (1973) concerning how a teacher should be able to perform as a product of a Performance-Based Teacher Education Program (Appendix C). Therefore the validity of the instrument is of the content type.

### Data Analysis

The questionnaire responses were tabulated and processed by hand because of the limited number of subjects due to specific qualification standards. Percentages of responses for all questions were tabulated. Analysis consisted of a chi-square test of "goodness of fit"

to consider the U.N.I. teacher ratings on competencies. The Mann-Whitney U Test was also used to measure the differences between the two independent samples (Phase I only and Phase I and II) being surveyed. This analysis was used since the data were skewed and considered ordinal.

CHAPTER FOUR  
DATA PRESENTATION

Introduction

The purpose of the study was to find out how present special education teachers who have participated in the University of Northern Iowa's (U.N.I.) Performance-Based Education Program were rated on teaching effectiveness by their school principals. To accomplish this purpose, the following objectives were established:

1. To obtain rating information on University of Northern Iowa's special education graduates who have completed Phase I only or Phase I and Phase II as perceived by their respective principals.

2. To compare the ratings of University of Northern Iowa's special education graduates who have completed Phase I only against those graduates who have completed both Phase I and Phase II.

Percentages of responses for all questions were tabulated. Analysis consisted of a chi-square test of "goodness of fit" to consider the distribution of the U.N.I. teacher ratings on competencies. The Mann-Whitney U test was also employed so as to measure the differences between the two independent samples (Phase I only and Phase I and Phase II) being surveyed.

Presentation of Findings

The investigation started by having questionnaires sent to respective principals of twenty-nine U.N.I. graduates (thirteen Phase I and sixteen Phase I and II). Out of this total twenty-four questionnaires or 82.8% of the total were returned to be analyzed (eleven

Phase I and thirteen Phase I and II). From the total populations received, the principals rated 38% of the teachers as Outstanding, 35% as Good, 22% as Satisfactory and 4% as Poor on the fourteen criteria being rated.

As seen in Table 2, the use of the Mann-Whitney U test showed that there was a significant difference in the ratings between Phase I only and Phase I and II graduates by the principals ( $U^1-36$ ) and was rejected beyond the .05 level with higher ratings being given to graduates who had both Phase I and II.

Table 2  
Mann-Whitney U Test

<u>U</u>	<u>U<sup>1</sup></u>	<u>Degree of Freedom (df)</u>	<u>Level of Significance</u>
107	36	11, 13	7.05

(For further information See Appendix C)

As seen in Table 3, these teachers, by use of the chi-square test got a higher rating than was expected of a normal population ( $\chi^2 = 120.27$ ), with graduates of both Phase I and II training having highest ratings. It was rejected at the .001 level with three degrees of freedom.

Table 3  
Chi-Square Test of "Goodness of Fit"

<u>Chi-Square (<math>x^2</math>)</u>	<u>Degree of Freedom (df)</u>	<u>Level of Significance</u>
120.27	3	7.001

(For further information see Appendix C)

The rest of the analysis and results would be done in table form with percentages of responses for all questions being tabulated followed by a written description of the results. Criterias which are in table form were rated as follows: O=Outstanding, G=Good, S=Satisfactory, and P=Poor.

Table 4  
Results of Criteria Number 1: "Demonstrating in  
Their Teaching, A Knowledge of how Children or Youth Learn  
and Develop" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	18.0% (2)	36.3% (4)	36.3% (4)	9.11% (1)
Phase I and II	61.5% (8)	15.0% (2)	24.0% (3)	0.0% (0)
Combined Total Group	41.7% (10)	25.0% (6)	29.2% (7)	4.2% (1)

There was a vast difference in the rating of criteria number one by the principals. The majority (61.5%) of the graduates with both Phase I and II experiences were rated Outstanding as compared to graduates with Phase I only (18.0%). The majority of the graduates with Phase I only were rated in the Good and Satisfactory ranges (36% each). 9% of the Phase I only group received a Poor rating on the above criteria. Out of the combined groups, 41.7% were rated as Outstanding, 25% were rated as Good, 29.2% were rated as Satisfactory while 4.2% were rated as Poor (Table 4).

Table 5

Results of Criteria Number 2: "Diagnosing the Variety of Learning Styles Exhibited by Children and Youth" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	27.3% (3)	27.3% (3)	27.3% (3)	18.1% (2)
Phase I and II	61.5% (8)	23.1% (3)	15.4% (2)	0.0% (0)
Combined Total Group	45.7% (11)	25.0% (6)	20.0% (5)	8.3% (2)

The Phase I only group was rated evenly among the Outstanding, Good and Satisfactory group (27.3% each), while 18% were rated as Poor. The majority of the Phase I and II group (61.5%) was rated as Outstanding, 23% were rated as Good and 15% were rated as Satisfactory. Again, when the groups were combined, 45.7% were rated as Outstanding, 25% were rated as Good, and 20% were rated Satisfactory and 8% were rated Poor (Table 5).

Table 6

Results of Criteria Number 3: "Diagnosing Learning Strengths  
as Well as Weaknesses and Utilizing such Results  
in Teaching" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	36.3% (4)	36.3% (4)	18.0% (2)	9.1% (1)
Phase I and II	61.5% (8)	30.8% (4)	7.7% (1)	0.0% (0)
Combined Total Group	50.0% (12)	33.3% (8)	12.5% (3)	4.2% (1)

The Phase I only group were evenly represented in both Outstanding and Good range with 36% each. Eighteen percent of the group was rated as Satisfactory and 9% Poor. The Phase I and II group had 61% of their group in the Outstanding range, 30% were rated Good and 7% as Satisfactory. The results of the rating concerning the combined groups showed 50% of the teachers rated as Outstanding, 33% as Good, 12% as Satisfactory and 4% as Poor (Table 6)

Table 7

Results of Criteria Number 4: "Relating out of School Environments  
of Children or Youth to In-School Learning Situations"  
as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	36.3% (4)	36.3% (4)	27.3% (3)	0% (0)
Phase I and II	15.4% (2)	76.9% (10)	7.7% (1)	0% (0)
Combined Total Group	25.0% (6)	58.3% (14)	16.7% (4)	0% (0)



There was a significant difference at the Outstanding level between the two groups in favor of the Phase I only group. The principals of the Phase I only group rated 36% of the teachers as Outstanding in this criteria while the principals of the Phase I and II group rated 15% of their teachers as Outstanding. But 76% of the Phase I and II group were rated as Good and 7% were rated as Satisfactory. The Phase I only group also had 36% of their group rated as Good and 27% as Satisfactory. Neither group received a Poor rating on this criteria by their principals. Of the total population, the majority of the group were rated in the Good range, with 25% rated as Outstanding and 16% as Satisfactory (Table 7).

Table 8

Results of Criteria Number 5: "Planning Individually Prescribed Instruction in order to Develop Learning Environments Conducive to Continuous Learning for Children or Youth" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	45.5% (5)	9.1% (1)	36.3% (4)	9.1% (1)
Phase I and II	46.2% (6)	38.5% (5)	15.3% (2)	0.0% (0)
Combined Total Group	45.7% (11)	25.0% (6)	25.0% (6)	4.2% (1)

Both the majority of the Phase I only and Phase I and II groups were rated as Outstanding, with 45% and 46% respectively. The major difference between the groups were seen when the groups were rated as "Good." The Phase I and II group had 38% of their population rated as

"Good" while 9% of the Phase I only group received this rating. Also, 9% of the Phase I only group received a rating of "Poor" from their principals. When the total group was combined, the majority of the teachers (45%) were rated as "Outstanding," 25% each were rated as "Good" and "Satisfactory," while 4% were rated as "Poor" on this criteria (Table 8).

Table 9

Results of Criteria Number 6: "Planning and Developing Curriculum Related to Both the Development of Children or Youth and Social Change by Utilizing Their Experiences" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	27.3% (3)	36.3% (4)	36.3% (4)	0% (0)
Phase I and II	53.8% (7)	30.8% (4)	15.3% (2)	0% (0)
Combined Total Group	41.7% (10)	33.3% (8)	25.0% (6)	0% (0)

The Phase I and II group had 53% of their teachers rated as Outstanding by their principals while 27% of the Phase I only group were rated as such. Thirty-six percent of the teachers in the Phase I only group were rated as doing a "Good" job on this criteria and in the Phase I and II group, 30% were rated as such. No person in either group was rates as "Poor" on this criteria. The Phase I only group had 36% of the teachers rated as doing Satisfactory, while 15% of the Phase I and II group were rated as doing Satisfactory by their principals. When the total group was combined, there were 41% of the teachers

doing Outstanding work, 33% doing Good, 25% Satisfactory and no one had a Poor rating (Table 9).

Table 10

Results of Criteria Number 7: "Establishing School and Classroom Environments that Enhance the Identity Development of Children or Youth" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	36.3% (4)	36.3% (4)	27.3% (3)	0% (0)
Phase I and II	38.5% (5)	61.5% (8)	0.0% (0)	0% (0)
Combined Total Group	37.5% (9)	50.0% (12)	12.5% (3)	0% (0)

Both groups were rated somewhat evenly in the Outstanding range by their principals. The Phase I only group had 36% rated as Outstanding and the Phase I and II group had 38% rated in this category. The major difference in the rating was found in the Good range where Phase I and II accounted for 61% as opposed to 36% for the Phase I only group. Neither group was rated Poor on this criteria. The combined rating of the total group yielded the following results: 50% were rated as Good, 37% as Outstanding and 12% Satisfactory, with no one being rated as Poor on this criteria (Table 10).

Table 11

Results of Criteria Number 8: "Demonstrating an Understanding of Subject Matter Sequencing, and use this Knowledge in the Analysis of Teaching-Learning Situations" as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	18.1% (2)	27.3% (3)	36.3 (4)	18.1% (2)
Phase I and II	61.5% (8)	38.5% (5)	0.0% (0)	0.0% (0)
Combined Total Group	41.7% (10)	33.3% (8)	16.7% (4)	8.3% (2)

The results indicated that there was a considerable difference in the rating of the two groups. In the Outstanding range 61% of the Phase I and II group were rated as such while 18% of the Phase I only group received this rating. The principals rated 38% of the Phase I and II group Good, as well as 27% of the Phase I only group on this criteria. Eighteen percent of the Phase I only group was also rated as Poor by the principals. In total form, the principals gave 41% of the group an Outstanding on this criteria while 33% were awarded Good, 16% Satisfactory and 8% Poor (Table 11).

Table 12  
Results of Criteria Number 9: "Using Instructional  
Technology as Teaching and Learning Media,"  
as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	9.1% (1)	63.6% (7)	27.3% (3)	0.0% (0)
Phase I and II	15.3% (2)	46.2% (6)	30.8% (4)	7.7% (1)
Combined Total Group	12.5% (3)	54.2% (13)	29.2% (7)	4.1% (1)

Both groups were rated low by the principals at the Outstanding level of proficeincy (9% and 15% respectively for the Phase I only and the Phase I and II group). The majority of both groups were rated at the Good level which amounted to 63% of the Phase I only group and 46% of the Phase I and II group. Seven percent of the Phase I and II group were rated Poor on this particular criteria.

On this criteria, the majority of the combined total group (54%) were rated as Good, 29% were rated Satisfactory, 12% were rated Outstanding and 4% of the group were rated Poor (Table 12).

Table 13

Results of Criteria Number 10: "Organizing and Working Effectively  
with Children and Youth in Small Groups," as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	36.3% (4)	36.3% (4)	27.3% (3)	0% (0)
Phase I and II	69.2% (9)	23.1% (3)	7.7% (1)	0% (0)
Combined Total Group	54.2% (13)	29.2% (7)	16.6% (4)	0% (0)

The Phase I only group were rated evenly between the Outstanding and Good levels with each category receiving 36%. The principals also rated 27% of this group as Satisfactory. Sixty-nine percent of the Phase I and II group were rated by the principals as Outstanding, with 23% in the Good and 7% in the Satisfactory range. There was no one rated as Poor in either of the groups.

Of the combined total group, the principals rated 54% of this group as doing an Outstanding job on this criteria, while 29% did Good, and 16% did Satisfactory (Table 13).

Table 14

Results of Criteria Number 11: "Developing and Using Classroom Management Techniques Appropriate to the Behavior and Learning Characteristics of Children in the Classroom," as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	18.1% (2)	27.3% (3)	45.5% (5)	9.1% (1)
Phase I and II	53.8% (7)	23.1% (3)	15.3% (2)	7.7% (1)
Combined Total Group	37.5% (9)	25.0% (6)	29.2% (7)	9.3% (2)

The Phase I and II group received 53% Outstanding, 23% Good, 15% Satisfactory and 9% Poor on the ratings by the principals. In the Phase I only group, the principals rated 18% of the teachers Outstanding, 27% as Good, 45% as Satisfactory and 9% as Poor. Combined, the two groups together had 37% of the teachers rated as Outstanding by the principals. Twenty-nine percent were rated as Satisfactory, 25% as Good, and 8% of the total group were rated as Poor (Table 14).

Table 15

Results of Criteria Number 12: "Demonstrating the Ability to Intervene When a Child is Manifesting Behavior or Academic Problems," as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	9.1% (1)	36.3% (4)	45.5% (5)	9.1% (1)
Phase I and II	38.5% (5)	38.5% (5)	15.3% (2)	7.7% (1)
Combined Total Group	25.0% (6)	37.5% (9)	29.2% (7)	8.3% (2)

The levels of Outstanding and Good were rated evenly by the principals for the Phase I and II group. Each of the mentioned levels accounted for 38% of the group, while 15% were rated as Satisfactory and 7% Poor. The Phase I only group had 9% of their teachers rated as Outstanding, 36% Good, 45% Satisfactory and 9% Poor on this particular criteria. The rating for the total group showed somewhat evenly rated as Outstanding (25%) and Satisfactory (29%). While 37% of the group were rated as Good and 8% as doing Poor on this particular criteria (Table 15).

Table 16

Results of Criteria Number 13: "Working as Part of a Diverse Team," as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	9.1% (1)	45.5% (5)	27.3% (3)	18.1% (2)
Phase I and II	53.8% (7)	23.1% (3)	23.1% (3)	0.0% (0)
Combined Total Group	33.3% (8)	33.3% (8)	25.0% (6)	8.3% (2)

The major differences in the ratings between the Phase I only group and the Phase I and II group were to be found in the Outstanding, Good, and Poor levels. The Phase I and II group had 53% of their teachers at the Outstanding level as opposed to 9% for the Phase I only group. In the rating of Good, 45% of the Phase I and II group were in this category as opposed to 23% of the Phase I only group. There were also 18% of the Phase I only group rated poor in this criteria while none of the Phase I and II group were rated as such. The total group showed an even rating at the Outstanding and Good levels (33% each). With 25% of the group rated as Satisfactory and 8% Poor (Table 16).

Table 17

Results of Criteria Number 14: "Exhibiting Knowledge of the School Building Rules by Showing Ability to Function Within these Rules," as Perceived by Principals

<u>Groups</u>	<u>O</u>	<u>G</u>	<u>S</u>	<u>P</u>
Phase I only	0.0% (0)	54.5% (6)	45.5% (5)	0% (0)
Phase I and II	61.5% (8)	15.3% (2)	23.1% (3)	0% (0)
Combined Total Group	33.3% (8)	33.3% (8)	33.3% (8)	0% (0)

No percentage of the Phase I only group was rated at the Outstanding level on this criteria. However, 54% of the group were rated Good and 45% Satisfactory. In the Phase I and II group, the principals rated over one half of the group (61%) as Outstanding in this criteria, with 15% rated Good and 23% as Satisfactory. No group had any percentage of its teachers rated Poor on this criteria. The combined group had an evenly distributed percentage among the levels of Outstanding, Good, and Satisfactory (33% each). (Table 17).



### Summary

Greater than 82% return was received from the principals of both the Phase I only and Phase I and II groups. The actual number of questionnaires that were sent out was twenty-nine. The number returned was twenty-four. In the Phase I only group, thirteen questionnaires were sent out and eleven were returned, while in the Phase I and II group sixteen were sent out and thirteen were returned.

The Mann-Whitney U test showed that there was a significant difference in the ratings between the Phase I only and the Phase I and II groups by the principals, where  $U_1 = 36$  and was rejected at the .05 level with higher ratings received by the Phase I and II group. By using the chi-square test of "goodness of fit," the combined group received higher ratings than was expected for a normal population ( $\chi^2 = 120.27$ ) and was rejected at the .001 level with three degrees of freedom.

The following are the results of criteria 1-14 as perceived by school principals:

Criteria Number 1: Teachers' Knowledge of Learning and Developmental Skills. In the Phase I only group, 18% (2) were perceived as Outstanding, 36% (4) as Good, 36% (4) as Satisfactory and 9% (1) as Poor by their principals. In the Phase I and II group, 61% (8) were perceived as Outstanding, 15% (2) as Good, and 24% (3) as Satisfactory by their principals. Of the combined group, 41% (10) were perceived as Outstanding, 25% (6) as Good, 29% (7) as Satisfactory and 4% (1) as Poor.

Criteria Number 2: Ability to Diagnose a Variety of Learning Styles. In the Phase I only group, 27% (3) were perceived as Outstanding, 27.3% (3) as Good, 27.3 (3) as Satisfactory and 18.1% (2) as Poor by their principals. In the Phase I and II group, 61.5% (8) were perceived as Outstanding, 23.1% (3) as Good, and 15.4% (2) as Satisfactory by their principals. Of the combined group, 45.7% (11) were perceived as Outstanding, 25% (6) as Good, 20% (5) as Satisfactory and 8.3% (2) as Poor.

Criteria Number 3: Ability to Diagnose Learning Strengths as Well as Weaknesses and Use Results in Teaching. In the Phase I only group, 36.3% (4) were perceived as Outstanding, 36.3% (4) as Good, 18.0% (2) as Satisfactory and 9.1% (1) as Poor by their principals. In the Phase I and II group, 61.5% (8) were perceived as Outstanding, 30.8% (4) as Good, and 7.7% (1) as Satisfactory. In the Phase I and II group, no teacher was perceived as doing poorly. Of the combined group, 50% (12) were perceived as Outstanding, 33.3% (8) as Good, 12.5% (3) as Satisfactory and 4.2% (1) as Poor.

Criteria Number 4: Ability to Relate Child's Out of School Environment to In-School Learning Situations. In the Phase I only group, 36.3% (4) were perceived as Outstanding, 36.3% (4) as Good, and 27.3% (3) as Satisfactory. In the Phase I and II group, 15.4% (2) were perceived as Outstanding, 76.9% (10) as Good, and 7.7% (1) as Satisfactory by their principals. Of the combined group, 25.0% (6) were perceived as Outstanding, 58.3% (14) as Good, and 16.7% (4) as Satisfactory.

Criteria Number 5: Ability to Plan Individually Prescribed Instruction. In the Phase I only group 45.5% (5) were perceived as Outstanding, 9.1% (1) as Good, 36.3% (4) as Satisfactory, and 9.1% as Poor (1)

by their principals. In the Phase I and II group, 46.2% (6) were perceived as Outstanding, 38.5% (5) as Good, and 15.3% (2) as Satisfactory by their principals. Of the combined group, 45.7% (11) were perceived as Outstanding, 25.0% (6) as Good, 25.0% (6) as Satisfactory, and 4.2% (1) as Poor.

Criteria Number 6: Ability to Plan and Develop Curriculum Utilizing Children's Experiences. In the Phase I only group 27.3% (3) were perceived as Outstanding, 36.3% (4) as Good, and 36.3% (4) as Satisfactory by their principals. In the Phase I and II group, 53.8% (7) were perceived as Outstanding, 30.8% (4) as Good, and 15.3% (2) as Satisfactory by their principals. Of the combined group, 41.7% (10) were perceived as Outstanding, 33.3% (8) as Good, and 25.0% (6) as Satisfactory.

Criteria Number 7: Ability to Enhance Identity Development of Pupils in Classroom Teaching. In the Phase I only group 36.3% (4) were perceived as Outstanding, 36.3% (4) as Good, and 27.3% (3) as Satisfactory by their principals. In the Phase I and II group 38.5% (5) were perceived as Outstanding, and 61.5% (8) as Good by their principals. Of the combined group, 37.5% (9) were perceived as Outstanding, 50.0% (12) as Good, and 12.5% (3) as Satisfactory by their principals.

Criteria Number 8: Ability to Demonstrate Sequencing of Subject Matter in Classroom Teaching. In the Phase I only group 18.1% (2) were perceived as Outstanding, 27.3% (3) as Good, 36.3% (4) as Satisfactory, and 18.1% (2) as Poor by their principals. In the Phase I and II group, 61.5% (8) were perceived as Outstanding, and 38.5% (5)

as Good by their principals. Of the combined group, 41.7% (10) were perceived as Outstanding, 33.3% (8) as Good, 16.7% (4) as Satisfactory, and 8.3% (2) as Poor.

Criteria Number 9: Ability to Use Instructional Technology as Teaching and Learning Media. In the Phase I only group, 9.1% (1) were perceived as Outstanding, 63.6% (7) as Good, and 27.3% (3) as Satisfactory by their principals. In the Phase I and II group 15.3% (2) were perceived as Outstanding, 46.2% (6) as Good, 30.8% (4) as Satisfactory, and 7.7% (1) as Poor by their principals. Of the combined group, 12.5% (3) were perceived as Outstanding, 54.2% (13) as Good, 29.2% (7) as Satisfactory, and 4.1% (1) as Poor.

Criteria Number 10: Ability to Organize and Work Effectively with Children in Small Groups. In the Phase I only group 36.3% (4) were perceived as Outstanding, 36.3% (4) as Good, and 27.3% (3) as Satisfactory by their principals. In the Phase I and II group 69.2% (9) were perceived as Outstanding, 23.1% (3) as Good, and 7.7% (1) as Poor by their principals. Of the combined group, 54.2% (13) were perceived as Outstanding, 29.2% (7) as Good, and 16.6% (4) as Satisfactory.

Criteria Number 11: Ability to Use Appropriate Classroom Management Techniques in the Classroom. In the Phase I only group, 18.1% (2) were perceived as Outstanding, 27.3% as Good, 45.5% (5) as Satisfactory and 9.1% (1) as Poor by their principals. In the Phase I and II group, 53.8% (7) were perceived as Outstanding, 23.1% (3) as Good, 15.3% (2) as Satisfactory, and 7.7% (1) as Poor by their principals. Of the combined group 37.5% (9) were perceived as Outstanding, 25.0% (6) as Good, 29.2% (7) as Satisfactory, and 8.3% (2) as Poor.

Criteria Number 12: Ability to Intervene When a Pupil is Manifesting Behavior or Academic Problems. In the Phase I only group 9.1% (1) were perceived as Outstanding, 36.3% (4) as Good, 45.5% (5) as Satisfactory, and 9.1% (1) as Poor by their principals. In the Phase I and II group 38.5% (5) were perceived as Outstanding, 38.5% (5) as Good, 15.3% (2) as Satisfactory, and 7.7% (1) as Poor by their principals. Of the combined group 25.0% (6) were perceived as Outstanding, 37.5% (9) as Good, 29.2% (7) as Satisfactory, and 8.3% (2) as Poor.

Criteria Number 13: Ability to Work as Part of a Diverse Educational Team. In the Phase I only group, 9.1% (1) were perceived as Outstanding, 45.5% (5) as Good, 27.3% (3) as Satisfactory, and 18.1% (2) as Poor by their principals. In the Phase I and II group 53.8% (7) were perceived as Outstanding, 23.1% (3) as Good, and 23.1% (3) as Satisfactory by their principals. Of the combined group 33.3% (8) were perceived as Outstanding, 33.3% (8) as Good, 25.0% (6) as Satisfactory, and 8.3% (2) as Poor.

Criteria Number 14: Ability to Function Within School Building Rules and Regulations. In the Phase I only group, 54.5% (6) were perceived as Good, and 45.5% (5) as Satisfactory by their principals. In the Phase I and II group 61.5% (8) were perceived as Outstanding, 15.3% (2) as Good, and 23.1% (3) as Satisfactory by their principals. Of the combined group, 33.3% (8) were perceived as Outstanding, 33.3% (8) as Good, and 33.3% (8) as Satisfactory.

CHAPTER FIVE  
SUMMARY AND CONCLUSIONS

Introduction

The Performance-Based Teacher Education movement is very viable and attracting an increasing number of followers (Schnieder, 1973). Although there are many concerns yet to be revised, the potential advantages render this one of the most promising educational movements of recent times. Since the movement is still somewhat in its beginning stages, the major impact of the program is yet to be determined.

However, the Performance-Based Teacher Education Program is not without its critics (Henry, 1972), and advocates of this type of program urge subject matter specialists to help undertake research necessary to broaden the base and to develop satisfactory measures of assessment for the program (Elam, 1971).

Problem

Many teacher education institutions, recognizing the problems that are in the traditional approaches to teacher education, have already begun to study and change their programs and courses toward a Performance-Based Teacher Education program. This being a relatively new approach to teacher education, data based knowledge is needed about the link between teacher behavior and student behavior. There is an immediate need for techniques to allow the assessing of skills the trainees possess, and to provide training in those skills that are lacking in the trainees.

### Subjects and Setting

In this study, twenty-nine subjects had completed undergraduate and graduate teacher preparation programs at the University of Northern Iowa and were employed full-time as special education teachers in the Blackhawk-Buchanan counties in Iowa. Their years in the field of teaching ranged from one to seventeen.

Each of the teachers had taken either Phase I only or both Phase I and II at U.N.I. Thirteen of the teachers had taken Phase I only, which is a combination of course work and practicum designed to develop competencies in the individualized instruction application of the principles and techniques of management in a tutorial setting, and prescriptive teaching. Sixteen teachers had taken Phase I and Phase II, which is also a combination of course work and practicum, but is specifically designed to develop competencies in the total classroom application of the principles and techniques of classroom management and prescriptive teaching.

A questionnaire was sent to the principals of the building in which the subjects taught. The principals were asked to rate, as they perceive, the effectiveness of their respective teachers on fourteen competencies that had some reflection on both the Phase I and Phase II programs at U.N.I.

### Instrumentation

The instrumentation surveyed the principals on fourteen competencies on a five point scale of their designated teachers in the field of special education. The principals were also asked to write statements with regard to what they perceived as a major part of an evaluation concerning the teachers, but were not included in the investigation

itself.

### Analysis

Analysis consisted of a chi-square test of "goodness of fit" to consider the distribution of the u.N.I. teacher ratings on competencies. The Mann-Whitney U test was also used to measure the differences between the two independent samples (Phase I only and Phase I and II) being surveyed.

### Results

Greater than 82% return was received from the principals in the investigation. As a single group, the principals rated 38% of the teachers as Outstanding, 35% as Good, 22% as Satisfactory, and 4% as Poor on the fourteen criterias. Rating the Phase I only teachers as a group, the principals perceived 23% of these teachers as Outstanding, 26% as Good, 32% as Satisfactory and 7% as Poor. The teachers who had both Phase I and II experiences were rated as having 49% of the group at the Outstanding level, 34% as Good, 16% as Satisfactory and 1% as Poor.

The total population of subjects showed a higher rating than was expected of a normal population by applying the chi-square test of "goodness of fit." The chi-square yielded 120.27, and was rejected at the .001 level with three degrees of freedom.

There was also a significant difference in the ratings between the Phase I only group and the Phase I and II group when the Mann-Whitney U test was applied. This difference was rejected beyond the .05 level, with higher ratings being given to the Phase I and II group.

The data clearly indicated that the principals perceived the



majority of the teachers who had Phase I and also Phase II experiences as above average (Outstanding and Good) teachers than was the case of teachers who had only the Phase I experience.

### Conclusions

The following conclusions were reached on the basis of the survey results:

1. The majority of teachers who participated in either the Phase I only or Phase I and II courses at U.N.I. were perceived by their principals as above average teachers on the criterias that were rated.

2. The majority of the teachers who participated in both Phase I and Phase II courses at U.N.I. were rated higher by the principals, than those teachers who had the Phase I only courses.

3. Some knowledge of school building rules and regulations, and also of information concerning community resources available to handicapped citizens should be received in these courses.

### Limitations of the Study

The investigation was limited with respect to the following factors:

1. The sample size was limited to graduates from the University of Northern Iowa who majored in Special Education and also participated in either the Phase I or Phase I and Phase II program. The sampling was limited to Special Education teachers in the BlackHawk-Buchanan Counties in Iowa.

2. Since the sampling was very limited, generalization cannot be made for other Performance-Based Teacher Education Programs.

3. The data revealed only that information which the principals were able to respond to.

4. The rapport between the principal and the teacher might have had an influence on the principal's responses.

5. There was no reliability data on the instrument used.

6. In the future, studies of this nature should include more explicit directions to accompany the questionnaire (i.e. definition of possible choices).

#### Implications of Further Research

Additional research needs to be carried out concerning differences in teaching effectiveness that exist between the regular and special education program at U.N.I. as perceived by principals. Future studies might investigate:

1. The attitudes of teachers, concerning Performance-Based courses that they have taken.

2. Determining competencies of effective teachers.

3. The effects of small groups vs. large groups training experiences on teacher effectiveness.

4. The skills and knowledge needed to most efficiently profit from different types of practicum experiences.

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## APPENDICES

APPENDIX A

SAMPLE OF LETTERS AND QUESTIONNAIRES

SENT TO PRINCIPALS



UNIVERSITY OF NORTHERN IOWA · Cedar Falls, Iowa 50613

Department of Curriculum and Instruction  
DIVISION OF SPECIAL EDUCATION  
TELEPHONE 319-273-6061

February 14, 1975

Dear

Since Special Education is becoming a prominent area in public school education, it is important that teachers trained in this field develop the necessary skills to handle the needs of exceptional children.

In order to assess the effectiveness of the University of Northern Iowa's teacher training program in developing the needed skills in its trainees, we have enclosed a questionnaire on University of Northern Iowa Special Education graduate(s) presently teaching in your school. We would appreciate you completing the form on this(ese) teacher(s) in terms of the designated skills. In addition, please list the competencies you consider most important for Special Education teachers that are not included in the list. A self addressed stamped envelope is enclosed for your convenience.

Thank you in advance for your immediate help in this matter.

Sincerely,

Joel C. Ortega,  
Graduate Assistant  
Division of Special Education

DIVISION OF SPECIAL EDUCATION  
UNIVERSITY OF NORTHERN IOWA

PRINCIPAL RATING MEAN OF PROFESSIONAL COMPETENCIES  
AND DESIGNATION OF DEFICIENCIES OF GRADUATES

Principal's Name \_\_\_\_\_

Teacher's Name \_\_\_\_\_ Type of Class (EMR, TMR, LD. etc.) \_\_\_\_\_

Years of Experience \_\_\_\_\_ Level \_\_\_\_\_

Highest Degree Held \_\_\_\_\_

DEGREE OF COMPETENCY

The Teacher Seems Proficient In -

	Outstanding	Good	Satisfactory	Poor	Non-Applicable
Demonstrating in their teaching, a knowledge of how children or youth learn and develop					
Diagnosing the variety of learning styles exhibited by children or youth					
Diagnosing learning strengths as well as weaknesses and utilizing such results in teaching					
Relating out of school environments of children or youth to in-school learning situations					
Planning individually prescribed instruction in order to develop learning environments conducive to continuous learning for children or youth					
Planning and developing curriculum related to both the development of children or youth and social change by utilizing their experiences					
Establishing school and classroom environments that enhance the identity development of children or youth					
Demonstrating an understanding of subject matter sequencing, and use this knowledge in the analysis of teaching-learning situations. eg. math - addition, subtraction, multiplication, division					

	Outstanding	Good	Satisfactory	Poor	Non-Applicable
Using instructional technology as teaching and learning media. (film strips, language masters, tape recorders, etc.)					
Organizing and working effectively with children and youth in small groups					
Developing and using classroom management techniques appropriate to the behavior and learning characteristics of children in the classroom					
Demonstrating the ability to intervene when a child is manifesting behavior or academic problems					
Working as part of a diverse team (such team will include other teachers, specialists, paraprofessionals, etc.)					
Exhibiting knowledge of the school building rules by showing ability to function within these rules					

Professional Competencies Principal Perceives as Important but Lacking in Graduate:

(This area is currently blank for recording responses.)

APPENDIX B

DESCRIPTION OF PHASE I AND PHASE II EXPERIENCES

AT THE UNIVERSITY OF NORTHERN IOWA

Within the Division of Special Education, the Northern Iowa Instructional Laboratory (NIIL) was developed to provide the component of Experience Practicum. This Experience Practicum serves as the core of the program to which the other two components, Instructional Methodology and Educational Management, feed for implementation and performance accountability.

### Training Procedure

The actual accomplishment of the performance criteria identified to be developed in trainees by the Special Education Division, is primarily achieved by the students in a three semester block. The first semester consists of lecture classes that generally introduce students to the basic theoretical understandings and issues in special education as well as to brief encounters with various groups of handicapped children. Such classes as "Survey of Exceptional Children" and "Studies in certain problem areas" are presented. In addition, the students are required, at this time, to visit community agencies and spend several hours a week getting acquainted with handicapped children. This initial exposure is important. It provides the student with a chance to determine whether he wishes to continue in special education.

If the student decides to continue in special education and he achieves satisfactorily in his coursework the second semester of training is begun. This semester is called Phase I. At this point the integrative model found in Figure I is implemented.

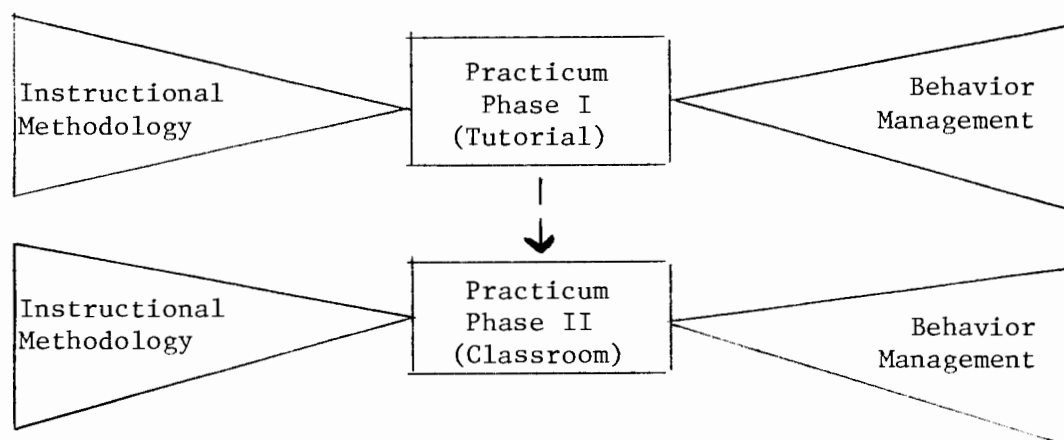


Figure I. The integrative model of the component parts of the UNI Special Education Program.

In Phase I three components are inherent. These include two input courses and the practicum. The management input course provides the student with the knowledge to diagnose, prescribe and remediate learning and behavior problems of an individual child. In the instructional input course, information concerning methods, materials and skill sequencing that can be used with a handicapped child is provided. Along with these two classes a practicum experience is set up in which the input of the courses are implemented by the trainee with a child as the information is presented in the courses (week by week). It is this demonstration and implementation of the information provided in the input courses with a handicapped child that allows the performance based approach to be carried out. The practicum is arranged and supervised by the Northern Iowa Instructional Laboratory in conjunction with the instructional staff. In Phase I the practicum sites include the on campus instructional laboratory and many satellite laboratories in adjoining school districts.



After the student trainees successfully demonstrate the application of teaching skills with an individual child they are allowed to progress to Phase II. The Phase II series parallels the Phase I components with a change of emphasis to the teaching of a group of children rather than just one child (the move is from simple to more complex teaching situations). The management input class provides the student trainee with the necessary techniques for the diagnosis, prescription and remediation of learning and behavior problems in the group situation. An emphasis on increased precision and sophistication of techniques is stressed. In Phase II the instructional input requires the student to choose a specific training level of interest. The options available include (a) low functioning (severe and profound), (b) preacademic, (c) primary, (d) intermediate, and (e) secondary skill levels. (It is this emphasis on skill or functioning level that is employed to replace the traditional categorical emphasis.) The instructional input provides information concerning specific skill sequencing, methods and materials in the respective level of interest for teaching a group of children. As in Phase I, the core of the phase is the practicum where the student trainees are required to demonstrate the skills learned in the input classes with groups of children in a classroom setting. The coordination and supervision of the practicum are again the primary responsibility of NIIL. The practicum settings are located in cooperating classes in the surrounding school districts.

Upon the successful completion of Phase II the student trainees have completed the undergraduate teacher training sequence provided by

the special education program. At this point the trainees are exposed to educational input from cooperating disciplines and subsequently do thier formal student teaching experience with handicapped children before graduation.

GENERAL DESCRIPTION OF THE UNIVERSITY OF NORTHERN IOWA  
SPECIAL EDUCATION PROGRAM

The special education program at the University of Northern Iowa (UNI) is a NON-CATEGORICAL, PERFORMANCE-BASED PROGRAM. This unique, multi-phase preparation program contains many features not found in more traditional teacher training programs. The program concentrates on DEVELOPING TEACHERS COMPETENT in the DIAGNOSIS and REMEDIATION of learning and behavior problems. It avoids teaching strategies according to diagnostic labels of children. SUCCESSFUL TUTORING AND GROUP TEACHING of the handicapped student must be demonstrated in two one-semester experiences called Phase I and Phase II.

FEATURES OF THE PHASE I EXPERIENCE:

- \* Eight semester hours credit.
- \* Trainee works 72 hours in a one-to-one tutorial practicum under supervision of UNI staff.
- \* The trainee in the tutorial experience must:
  - adequately diagnose the child's learning and/or behavior problems.
  - prescribe an acceptable sequence of remedial activities.
  - successfully implement and evaluate teaching and management techniques.
- \* Successful trainees advance to Phase II; those failing repeat Phase I or choose another career field.

FEATURES OF THE PHASE II EXPERIENCE:

- \* Eleven semester hours credit.
- \* Trainee extends Phase I skills with 96 hours of teaching in group practicum under supervision of the classroom teacher and UNI staff.
- \* Trainee in the group experience must:
  - adequately diagnose learning and/or behavior problems.
  - successfully prescribe, implement, and evaluate acceptable remedial strategies.
  - successfully implement, maintain, and evaluate management techniques.
- \* Successful trainees advance to student teaching; those failing repeat Phase II or choose another career field.

This trainee's performance is described in the following Phase I and Phase II evaluation forms.

APPENDIX C

QUESTIONNAIRE RESULTS OF PHASE I ONLY GROUP AND  
PHASE I AND II GROUP RESPECTIVELY,  
TOGETHER WITH  
CALCULATIONS OF THE CHI-SQUARE AND  
MANN-WHITNEY U TEST

DIVISION OF SPECIAL EDUCATION

UNIVERSITY OF NORTHERN IOWA

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PRINCIPAL RATING MEAN OF PROFESSIONAL COMPETENCIES  
AND DESIGNATION OF DEFICIENCIES OF GRADUATES

Principal's Name \_\_\_\_\_

Teacher's Name \_\_\_\_\_ Type of Class (EMR, TMR, LD. etc.) \_\_\_\_\_

Years of Experience \_\_\_\_\_ Level \_\_\_\_\_

Highest Degree Held \_\_\_\_\_

RESULTS OF PHASE I ONLY GROUP

DEGREE OF COMPETENCY

The Teacher Seems Proficient In -	DEGREE OF COMPETENCY				
	Outstanding	Good	Satisfactory	Poor	Non-Applicable
Demonstrating in their teaching, a knowledge of how children or youth learn and develop	18%	36%	36%	9%	--
Diagnosing the variety of learning styles exhibited by children or youth	27%	27%	27%	18%	--
Diagnosing learning strengths as well as weaknesses and utilizing such results in teaching	36%	36%	18%	9%	--
Relating out of school environments of children or youth to in-school learning situations	36%	36%	27%	--	--
Planning individually prescribed instruction in order to develop learning environments conducive to continuous learning for children or youth	45%	9%	36%	9%	--
Planning and developing curriculum related to both the development of children or youth and social change by utilizing their experiences	27%	36%	36%	--	--
Establishing school and classroom environments that enhance the identity development of children or youth	36%	36%	27%	--	--
Demonstrating an understanding of subject matter sequencing, and use this knowledge in the analysis of teaching-learning situations. eg. math - addition, subtraction, multiplication, division	18%	27%	36%	18%	--

## DEGREE OF COMPETENCY

	Outstanding	Good	Satisfactory	Poor	Non-Applicable
9. Using instructional technology as teaching and learning media. (film strips, language masters, tape recorders, etc.)	9%	63%	27%	--	--
10. Organizing and working effectively with children and youth in small groups	36%	36%	27%	--	--
11. Developing and using classroom management techniques appropriate to the behavior and learning characteristics of children in the classroom	18%	27%	45%	9%	--
12. Demonstrating the ability to intervene when a child is manifesting behavior or academic problems	9%	36%	45%	9%	--
13. Working as part of a diverse team (such team will include other teachers, specialists, paraprofessionals, etc.)	9%	45%	27%	18%	--
14. Exhibiting knowledge of the school building rules by showing ability to function within these rules	--	54%	45%	--	--

Professional Competencies Principal Perceives as Important but Lacking in Graduate:

DIVISION OF SPECIAL EDUCATION  
UNIVERSITY OF NORTHERN IOWA

PRINCIPAL RATING MEAN OF PROFESSIONAL COMPETENCIES  
AND DESIGNATION OF DEFICIENCIES OF GRADUATES

Principal's Name \_\_\_\_\_

Teacher's Name \_\_\_\_\_ Type of Class (EMR, TMR, LD. etc.) \_\_\_\_\_

Years of Experience \_\_\_\_\_ Level \_\_\_\_\_

Highest Degree Held \_\_\_\_\_

DEGREE OF COMPETENCY

The Teacher Seems Proficient In -	Outstanding	Good	Satisfactory	Poor	Non-Applicable
Demonstrating in their teaching, a knowledge of how children or youth learn and develop	61%	15%	23%	--	--
Diagnosing the variety of learning styles exhibited by children or youth	61%	23%	15%	--	--
Diagnosing learning strengths as well as weaknesses and utilizing such results in teaching	61%	30%	7%	--	--
Relating out of school environments of children or youth to in-school learning situations	15%	76%	7%	--	--
Planning individually prescribed instruction in order to develop learning environments conducive to continuous learning for children or youth	46%	38%	15%	--	--
Planning and developing curriculum related to both the development of children or youth and social change by utilizing their experiences	53%	30%	15%	--	--
Establishing school and classroom environments that enhance the identity development of children or youth	38%	61%	--	--	--
Demonstrating an understanding of subject matter sequencing, and use this knowledge in the analysis of teaching-learning situations. eg. math - addition, subtraction, multiplication, division	61%	38%	--	--	--

## DEGREE OF COMPETENCY

	Outstanding	Good	Satisfactory	Poor	Non-Applicable
9. Using instructional technology as teaching and learning media. (film strips, language masters, tape recorders, etc.)	15%	46%	37%	--	--
10. Organizing and working effectively with children and youth in small groups	69%	23%	7%	--	--
11. Developing and using classroom management techniques appropriate to the behavior and learning characteristics of children in the classroom	53%	23%	14%	7%	--
12. Demonstrating the ability to intervene when a child is manifesting behavior or academic problems	38%	38%	7%	7%	--
13. Working as part of a diverse team (such team will include other teachers, specialists, paraprofessionals, etc.)	53%	23%	23%	--	--
14. Exhibiting knowledge of the school building rules by showing ability to function within these rules	61%	15%	23%	--	--

Professional Competencies Principal Perceives as Important but Lacking in Graduate:



CALCULATIONS OF  
THE MANN-WHITNEY U TEST

Step I

<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>
52	20.5	32	4.5
44.5	11	52	20.5
44	10	54.5	24
28	2	47.5	15
34	6.5	37	9
34	6.5	48	16
23	1	50	17
36	8	47	13.5
47	13.5	45	12
32	4.5	54	22.5
51	18.5	31	3

Step 2. 
$$U = n_1 n_2 + \frac{n_1(n_1+1)}{2} - R_1$$

Step 3. 
$$U = 143 + 66 - 102$$
  
$$U = 107$$

Step 4. (a)  $U^1=36$  (b) level of significance = reject  $> .05$   
(From Seigel's Non Parametric Statistics)

Step 5. Degree of freedom (df) = 11,13.

CALCULATIONS OF  
CHI-SQUARE ( $\chi^2$ ) TEST OF "GOODNESS OF FIT"

	<u>Outstanding</u>	<u>Good</u>	<u>Satisfactory</u>	<u>Poor</u>
Percentage of Normal Distribution	18%	32%	32%	18%

Expected Number	60	106.5	106.5	60
Observed Number	126	119	75	13

Goodness of Fit Test

$$\chi^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}$$

$$\chi^2 = 120.27$$

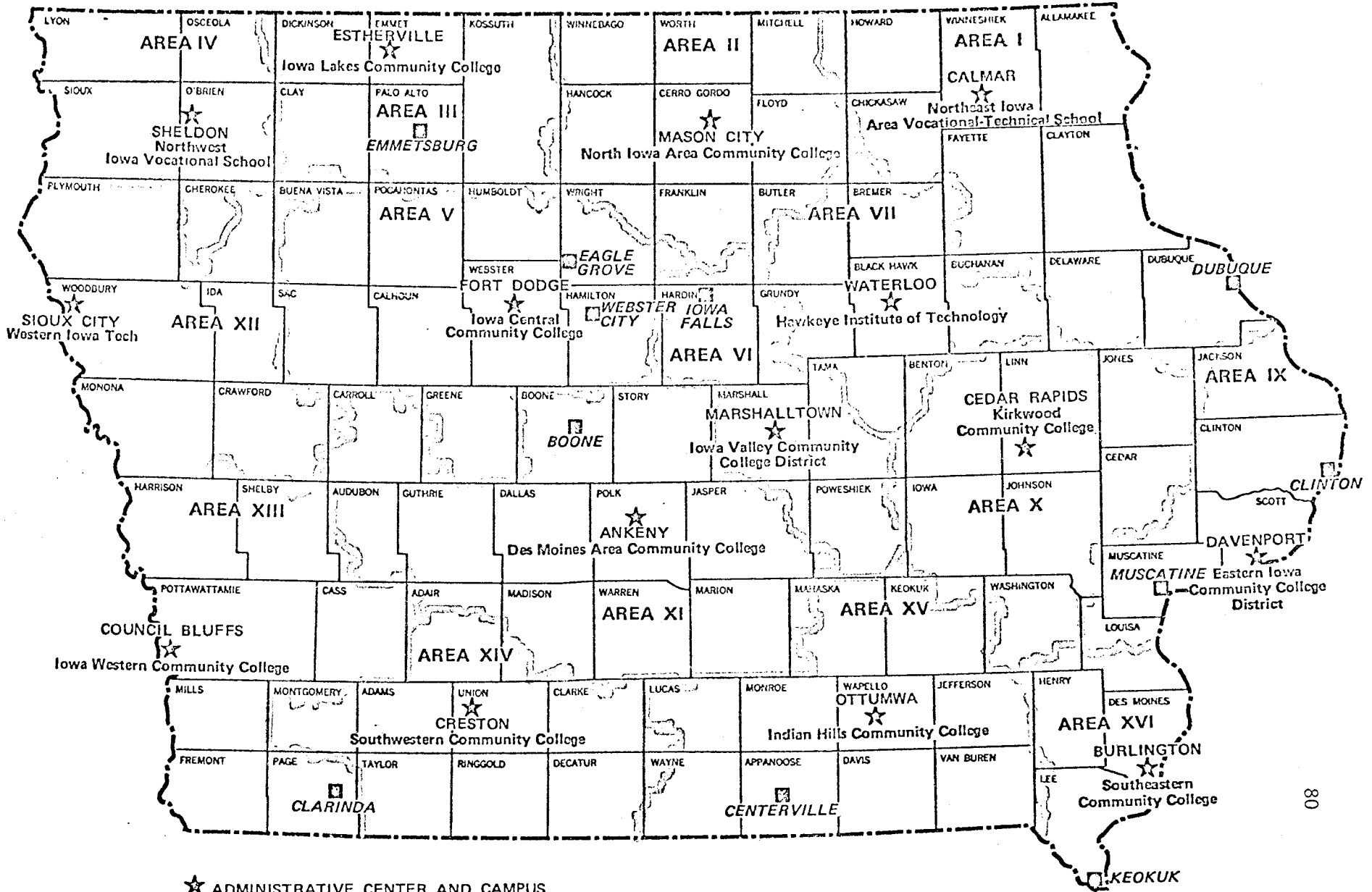
$$df = 4 - 1 = 3$$

Level of Significance = reject  $> .001$

(From Seigel's Non Parametric Statistics)

APPENDIX D  
MERGED AREA SCHOOLS: AREA EDUCATION  
AGENCIES (AEA)

# MERGED AREA SCHOOLS



★ ADMINISTRATIVE CENTER AND CAMPUS

□ OTHER CAMPUS (AREA SCHOOLS WITH MORE THAN ONE MAJOR CAMPUS)

APPENDIX E  
STATEMENTS ON COMPETENCIES PRINCIPALS SEE AS IMPORTANT  
BUT LACKING IN SOME GRADUATES

The following are competencies principals perceived as important but lacking in some graduates:

1. Phase I only group
  - a. "Ability to set new realistic goals."
  - b. "Ability to provide a varied curriculum."
  - c. "Knowledge of pre-academic sequencing for aging adults."
  - d. "Recognizing behavior problems at an early stage."
  - e. "Flexibility in approaches to problem solving."
  - f. "Advanced daily planning."
  - g. "Prevention of unforeseen problems through appropriate planning."
2. Phase I and II group
  - a. "Recognizing early behavior problems."
  - b. "Being consistent in classroom management."
  - c. "Ability to work with parents."
  - d. "A knowledge of information about community resources for special education."
  - e. "More tolerance for some diverse viewpoints of others."

APPENDIX F  
TABLES 18 and 19

Table 18  
Phase I Only and Phase I and II Graduates  
by Years of Experience

<u>Years of Experience</u>	<u>Phase I</u>	<u>Phase I and II</u>
1-5 years	45.5% (5)	69.1% (9)
6-9 years	36.4% (4)	15.5% (2)
10-15 years	18.1% (2)	7.7% (1)
16-20 years	0.0% (0)	7.7% (1)

The years of experience in teaching ranged from one year to seventeen years. The average years of experience for Phase I only graduates were 6.2 years. The average years of experience for Phase I and II graduates were 5.5 years (Table 18).

Table 19  
Phase I Only and Phase I and II  
Graduates by Sex

<u>Sex</u>	<u>Phase I</u>	<u>Phase I and II</u>
Male	27.3% (3)	15.4% (2)
Female	72.7% (8)	84.6% (11)

There were more female teachers in the study than males. There was a total of five male teachers in the two groups combined. In the Phase I only group there were eight (72.7%) female teachers and three (27.3% male teachers. In the Phase I and II group there were eleven (84.6% female teachers and two (15.4%) male teachers (Table 19).



Appendix G

Spearman Rank Correlation Coefficient

Between Years of Experience and Teacher Rating

## Spearman Rank Correlation Coefficient

Between Years of Experience and Teacher Rating

<u>Rating Rank (x)</u>	<u>Experience Rank (y)</u>	<u>Difference (di)</u>	<u>Difference Squared (di<sup>2</sup>)</u>
1	3.5	-2.5	6.25
2	3.5	-1.5	2.25
3	17.5	-14.5	210.25
4.5	17.5	-13	169
4.5	22	-17.5	306.25
7	24	-17	289
7	15	-8	64
7	15	-8	64
9	1	8	64
10	11.5	-1.5	2.25
11.5	11.5	0	0
11.5	6	5.5	30.25
13	3.5	9.5	90.25
14.5	23	-8.5	72.25
14.5	11.5	3	9
16	7	9	81
17	3.5	13.5	182.25
18.5	19.5	-1	1
18.5	15	3.5	12.25
20.5	19.5	1	1
20.5	11.5	9	81
22	8.5	13.5	182.25
23	21	2	4
<u>24</u>	<u>8.5</u>	15.5	<u>240.25</u>
300	300		2164

$$\begin{aligned}\sum x^2 &= 4900 - \frac{(300)^2}{24} \\ &= 4900 - 3750 \\ &= 1150\end{aligned}$$

$$\begin{aligned}\sum y^2 &= \frac{13824-24}{12} \\ &= 1150 \\ r_s &= \frac{\sum x^2 + \sum y^2 - \sum di^2}{2\sqrt{\sum x^2 \sum y^2}} \\ &= \frac{1150 + 1150 - 2164}{2300} \\ &= .0591\end{aligned}$$

$$N = 24$$

No Significance