1-1-1973

Critical teaching skills for prospective elementary school teachers priority and analysis : implication for change.

Walter D. Dean
University of Massachusetts Amherst

Recommended Citation

Dean, Walter D., "Critical teaching skills for prospective elementary school teachers priority and analysis : implication for change." (1973). *Doctoral Dissertations 1896 - February 2014*. 4211.
https://scholarworks.umass.edu/dissertations_1/4211

CRITICAL TEACHING SKILLS FOR PROSPECTIVE

ELEMENTARY SCHOOL TEACHERS PRIORITY

AND ANALYSIS: IMPLICATION

FOR CHANGE

A dissertation Presented

by

WALTER D. DEAN

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

JUNE, 1973

Major Subject: Education

CRITICAL TEACHING SKILLS FOR

PROSPECTIVE ELEMENTARY SCHOOL

TEACHERS PRIORITY AND ANALYSES:

IMPLICATION FOR CHANGE

A Dissertation

by

Walter D. Dean

Approved as to Style and Content by:

Cleo Abraham
Cleo Abraham, Chairman of Committee

[signature]
Dean Dwight Allen

[signature]
Member

[signature]
Member

[signature]
Member

June   1973
(Month)   (Year)

DEDICATION

To my wife Jean and daughter Erica,
who sacrificed and supported me
throughout the two years.

To my mother and father,
who provided me with the incentive
to fulfill a childhood dream.

To my mother and father-in-law
who stood by me through hard times.

ACKNOWLEDGEMENTS

A sincere appreciation is extended to the many people who made this study possible.

To Committee members Dr. Richard Clark and Dr. Ann Marie Haase, thank you for the constant technical advise and discussions on the overall progress of the study.

To Committee member Dr. Atron Gentry, thank you for the support and leadership throughout the last two years.

To the Committee chairman Dr. Cleo Abraham, a special thanks for the many hours of direction, and believing in the author and the study.

To Demetrius Gat, thank you for editing unselfishly for long hours on the different drifts of the questionnaire and the main body of the study.

Finally, to Dr. Mark Peel and Dr. Elliott Williams, thank you for being good listeners.

ABSTRACT

Need for the Study

Severe criticisms were leveled towards the type of prepara-
tion that has been provided for prospective teachres destined
for positions in elementary schools. Along with criticisms,
other information such as researched data showed that while
teacher education programs are changing, prospective teachers still
lack skills needed to become competent professionals. If teacher
education programs throughout the United States are now starting
to concentrate their attentions on teaching skills, what are
these skills that should be mastered by students preparing to
teach in elementary schools?

Purpose of the Study

This study proposed to prioritize the selected skills col-
lectively agreed upon by the model teacher education programs at
the University of Massachusetts, Michigan State University and
the University of Georgia. Each of these teaching skills was
rated with the use of a questionnaire to determine the order of
importance and its merit in a teacher preparation program as
viewed by the respondents, all of whom were involved in the
field of education.

-2-

Out of the five assumptions listed at the beginning of this study only one did not prove to be valid. In comparing whether or not older individuals would not rate the Human Relations skills as highly as beginning educators did indicate that there was a slight discrepancy in this assumption, and the assumption that all teachers, no matter their level of employment, could use these skills for teaching was not proven correct or incorrect.

Results

In the final analysis a list of thirty-eight specific skills were shown to have received adequate ratings necessary for them to be considered high priority and only two specific skills were not selected because their scores were only average in rating.

Conclusion

It was discovered that many of the specific skills were being utilized at a number of universities and colleges, but some skills were being emphasized more than others. It was true, however, that individual teachers will have preference as to which skills they consider more important, but this can be faulty in the overall development of future teachers. Therefore, a recommendation was rendered that all skills which received a high priority rating in this study should be emphasized equally.

TABLE OF CONTENTS

LIST OF TABLES

ix

CHAPTER I

INTRODUCTION

Need for the Study

The lack of quality education found in public elementary schools continues to be the center of discussion by many educators and non-educators since data from research on the inconsistencies of educating today's youth has been published. Most research data shows that while teacher education programs are changing, prospective teachers still lack skills needed to become competent professionals. The causes of this problem are many, but one that has received considerable attention is the lack of inadequate preparation in traditional teacher education programs.

Many teachers presently employed in elementary schools received preparation for teaching when teacher education programs were concentrating their attention on theory, method courses, and student teaching. While these areas of concentration included in their curriculums were relevant, recent data from model teacher education programs showed the need for a different orientation for prospective teachers.

Now that special attention is being given to elementary schools, the lack of skill preparation of these working teachers has become understandable, especially when they find it hard to teach and to relate to the interests presented daily by children in the classroom. If this situation continues unchanged, many future elementary teachers will be unable to avoid the same levels of frustration affecting the present generation of working teachers. They may then drift into ineffective teaching, thereby reverting to little more than controlling the class. Students in turn will continue to lose out by being unprepared in the skills needed for them to develop fully as individuals. If teachers were prepared more effectively in teaching skills, the results of their performance might be different. Consequently, an individual who receives training in a skill-oriented teacher education program will have a much better chance to solve the different problems faced in the live situation.

Not surprisingly, severe criticisms have been leveled toward the type of preparation that has been provided in recent times for prospective teachers destined for positions in elementary schools. Typical of these criticisms is a statement Myron Benton makes in his book, What's Happened to Teacher:

> When an eager new teacher takes over his first classroom, he is typically in for a few rude shocks. The first shock he endures is the realization of how badly

prepared he is for his job. The education of American teachers is periodically under attack.[1]

Educators have been confronted with the problem of preparing teachers for elementary schools for a number of years and have constantly received feedback from public and private school administrators concerning the inadequacies in the performance of many beginning teachers. Educators who prepared these first year teachers know that the interns they are trying to develop will soon become regular teachers in different schools throughout the country. These same educators on the college level have problems in evaluating intern teacher progress, and assessing what type of program would be best for prospective teachers today. Upon them rest some of the responsibility for solving the very complex problems that are found in elementary education. Silberman concluded:

> In short, the weakness of teacher education is the weakness of liberal education as a whole; if teachers are educated badly, that is to say, it is in large measure because almost everyone else is educated badly too.[2]

Strong recommendations have come from education specialists who believe that a comprehensive teacher education program that emphasizes pedagogical theory,

[1]Myron Benton, What's Happened to Teacher (New York: Coward-McCann, Inc., 1970), p. 105.

[2]Charles H. Silberman, Crisis in the Classroom (New York: Vintage Book, A Division of Random House, 1970), p. 380.

subject matter preparation, and the shaping of the prospective teacher's feelings and attitudes would be the most satisfactory. However, Silberman believes:

> In educating our teachers we had emphasized courses on pedagogy and method to the detriment of preparing them in the subjects they were supposed to teach. Often it seemed that school science had been swallowed up by the prevalent goal of life adjustment.[3]

Despite Silberman and other critics, such misdirected programs have been implemented, and not surprisingly have done little to alleviate many of the problems students face during their preparation for roles as full time professionals. While standard programs of this nature are not without merit, a principle shortcoming has been in the instruction of the different types of teaching skills needed for instructing elementary classroom students.

Dr. Caseel Burke, Dean of the School of Education, at Weber State College stated that:

> Perhaps the most common complaint against teacher education is that it stresses theory at the expense of practice. Some would call it over-verbalized and under-vitalized. Sensing some validity in this complaint, the faculty welcomed from the beginning the idea of competency-based training as an answer to this ancient problem. Not that theory should be abandoned but, that the student must understand the theory is concerted into practice and he must acquire the skills for accomplishing this.[4]

---

[3]Ibid., p. 378.

[4]Dr. Caseel Burke, The Individualized Competency-Based System of Teacher Education at Weber State College (Washington, D.C.: American Association of Colleges for Teacher Education, One Dupont Circle Suite, #610, 1972), p. 7.

Presently, there are many teacher education programs throughout the United States in operation that are concentrating their attention on performance skills that their undergraduate students should master prior to teaching. This does not imply that these model teacher education programs focus their attention exclusively on teaching skills during the undergraduate programs, but it does mean that along with the liberal arts subjects, pedagogical theory, and internship, teaching skills are included in the curriculum for undergraduates preparing to become future teachers. In support of this approach, Dr. Burke states: "Generally, these components are mixed and balanced in proportions to offer education students an added dimension with which to meet the ever increasing demand for flexible, dynamic teachers in the public schools."[5] For example: the first phase in the Model Teacher Education Program at the University of Georgia provides undergraduates with liberal arts courses. Although there is a heavy concentration of liberal arts subjects during this phase, theory, educational information and teaching skills are included. There are different educational phases in the teacher education program, but flexibility is maintained for individual differences.

Consequently, Dr. Burke, who has severely criticized

_____

[5]Ibid.

the ineffective way teachers are being prepared in many teacher education programs, does strongly support those teacher education programs, which provide each under-graduate majoring in education, with the opportunity to develop competencies in teaching skills throughout the program that are useful to prospective elementary school teachers. (See Chapter II for further information concerning different phases of the University of Georgia Model Teacher Education Program.)

Purpose of the Study

Many subjects are taught on the elementary school level. With this knowledge in mind, teacher education programs have tried to prepare their students for the task of acquiring an understanding of this varied subject content and pertinent professional information before they begin their internship. Charles Silberman states,

> The situation varies, of course, from institution to institution. But whether students major in education or in an academic subject, they take the bulk of their course work--as a rule, two-thirds to three quarters--in the academic departments. This is true whether they attend a teachers' college or a large university. In comparing the requirements of a group of prestigious colleges and universities with a group of teachers' colleges, for example, Dr. Conant could not find any differences in the time allocated to academic as opposed to professional or technical education courses. Some teachers' colleges, in fact, required more academic preparation than some of the liberal arts institutions.[6]

---

[6]Silberman, Crisis in the Classroom, p. 377.

This type of teacher preparation in itself is ineffective and has had counterproductive effects on students and their teachers, causing faculty members of some teacher education programs to reassess their curriculums. This re-evaluation led to the development of new programs many of which were funded by the federal government. Among these were the model teacher education programs. The model teacher education programs were funded for the purposes of redeveloping and redefining teacher needs leading to effective teaching in elementary schools. Each program has been successful in developing a skill-oriented program that presents different needed skills in elementary school teaching.

Dr. John H. Fischer, President of Teacher College, Columbia University has pointed out on the simplest level; "to use an overhead projector or tape recorder requires more skills than using a textbook."[7] Projecting this statement a hundred or a thousandfold, we can grasp the reality of the tremendous number of skills needed in each separate model teacher education program. Even though the total number of skills is vast, many are common to all the model teacher education programs. The existence of these common skills in each model teacher education program does suggest their acceptance as necessary for future teachers. However, there is a problem in identifying the basic

---

[7] John H. Fischer, "The Teacher's Role Is Growing," New York Times, January 12, 1968.

teaching skills that are written in the federal proposals and feasibility studies of these model teacher education programs because of the overall importance placed on teaching skills in each program.

Although these model teacher education programs have been in existence for many years, the decisions governing the selection of teaching skills to be taught to prospective teachers have been, and are now, the responsibility of college faculty in the teacher preparatory programs. Experienced principals, regular elementary teachers, intern teachers and other educators who are faced with performing these skills seldom have input into what type of training program will occur for undergraduates seeking to eventually teach. But, each of these educators needed to be involved in rating the teaching skills for the model teacher education programs after they were identified. Therefore, the purpose of using these educational specialists was to obtain their opinion concerning the kinds of skills they see as being essential to include in the curriculums of teacher education programs. The specialists are in the field and come in contact with beginning teachers, intern teachers and teachers that have been performing for some time on a day by day basis; they have the opportunity to observe both teacher success and failure. Their first hand knowledge and experience combined with the

expertise of a college faculty has made the various teacher
education programs better suited to prepare competent
teachers in the different skills needed in today's rapidly
changing society.

Therefore, this study proposed to prioritize the
selected skills collectively agreed upon by the Model
Teacher Education Programs at the University of Massachu-
setts, Michigan State University and the University of
Georgia. Each of these teaching skills will be rated with
the use of a questionnaire to determine the order of
importance and its merit in a teacher preparation program
as viewed by the respondents, all of whom are involved in
the field of education.

Definition of Terms

Intern Teachers is a term that has replaced student teacher
and practice teachers. It refers to a prospective teacher's
field work, that is, their actual instructional and non-
instructional experiences in education.

Prospective Teachers, Future Teachers and Education Majors
are students enrolled in a teacher training program who,
upon completion of that formal program, will be certified
to teach.

Teacher Education, Teacher Preparation, and Teacher Training
Programs are terms that are used interchangeably, but

preparation is the term that is more widely used today because of the past controversy over teacher education; therefore, the term teacher preparation describes that formalized portion of the teacher's background, typically college courses, without which certification will not be rendered.

Model Teacher Education Programs refers to nine programs that were funded in 1968 by the federal government, which called for a comprehensive undergraduate and inservice teacher education program for elementary teachers.

Teaching Skills refers to the different instructional techniques that are used in practicing the art of teaching and the ability to promote learning, developed through appropriate preparation and experience that is facilitated by natural aptitude.

Instructional Skills. "Serving for, or promoting types of educational instruction."[8]

Human Relations Skills. "A study of the human problems arising from organizational and interpersonal relations."[9]

Evaluation Skills. "The process of ascertaining or judging the value or amount of something by careful appraisal."[10]

---

[8]Webster's New International Dictionary of the English Language, 3rd ed., 1961.

[9]Ibid.

[10]Carter V. Good, Dictionary of Education (New York: McGraw-Hill Book Co., 1959), p. 209.

<u>Planning Skills</u>. "Devise procedures or regulations in accordance with a comprehensive plan for achieving a given objective."[11]

Population

The sample for this study consists of elementary school teachers from Waterbury, Connecticut; Hartford, Connecticut; Springfield, Massachusetts; elementary principals from Waterbury, Connecticut; Hartford, Connecticut; Springfield, Massachusetts; faculty members in teacher education programs at the University of Massachusetts, University of Hartford, and intern teachers from the University of Massachusetts and the University of Hartford.

The teachers and principals came from a variety of elementary public schools located in both suburban and urban communities. The range of years that these public educators have been employed in education was from one to twenty years. The teachers and administrators employed in the teacher education programs were preparing future educators for both urban and suburban schools, consequently, interns practiced in both types of communities. This variation of expertise and concentration should add needed substance to the study, because each group of educators has their own prospective of what teaching skills are the most

---

[11]<u>Ibid</u>., p. 401.

selections of High Priority, Average Priority, Low Priority
and Unable to Rate.

According to Gerald Lunney, the author of The
Construction of Questionnaires for Surveys in Education,
Backstrom and Hursh state in their article,

> The problem of measuring the strength of a respondent's
> feeling can be done in various ways. One way is to ask
> him to express his opinion in a form which a psycho-
> logical scale has already been established. Another
> method is to give the respondent a stimulus and then
> ask him to place a mark on a continuous scale in a
> position which represents his attitude.[12]

In this study the questionnaire serves the purpose
of prioritizing forty teaching skills that educators believe
are essential for prospective teachers to have before
teaching in elementary schools.

Design of the Study

In conducting a study of this nature it was
important to identify and list teaching skills that were
found in agreement in three or more model teacher education
programs. These skills were placed in a questionnaire for
the purpose of receiving input from elementary school
educators and college faculty currently working in teacher
education. Responses to this questionnaire were used for
the purpose of gathering information on the different skills

[12] Gerald Lunney, The Construction of Questionnaires
for Surveys in Education (School of Education, Amherst,
University of Massachusetts, 1965), p. 1.

essential for teacher education programs. All of the participating individuals volunteered to be interviewed by means of the questionnaire listing the different teaching skills under study. (See Chapter III for a description and further information concerning the questionnaire.)

Collection of Data

Each individual educator in Springfield, Massachusetts and the University of Massachusetts was given personally a questionnaire used in the study. All other educators located out of Massachusetts that were involved in this study received a cover sheet, questionnaire, and a stamped self-addressed envelop through the mail. The cover sheet accompanied the questionnaire so all respondents would understand the basis for this study and how important their input was. All respondents who did not return the questionnaire in two weeks received a follow-up letter explaining how important their input is to the study.

Instrument

The instrument used in assessing the value of teaching skills was a questionnaire containing forty subjective questions identifying the teaching skills that were under question. After each question a choice of four different responses was offered. These responses were used in establishing an evaluation scale. This scale included

and providing further data on the need for these skills.

Treatment of Data

The questionnaire allows for an assessment of what teaching skills are essentially needed by prospective elementary school teachers. This assessment was determined by the directional movement in scores on the evaluation scale. Out of the four areas of selection used, two levels of proficiency were negative. The total score for each response was computed by adding the number of responses for each skill.

Limitation of the Study

There are limitations on the number of teaching skills that can be studied. The different model teacher education programs present a very large number of skills; therefore, the only teaching skills that will be studied are those which are agreed upon by each of the three or more programs that are studied.

This study is geographically self-limiting. The distance between states in which each model teacher education program is located is so great that only individual educators from Western Massachusetts and Southern Connecticut received a questionnaire. In all probability the results of the data collected will differ significantly

from similar studies conducted in other parts of the country.

The study mentions different behaviors and attitudes of undergraduates in a skill-oriented program, but will not measure either.

The study does not cover all aspects of teacher education, therefore, areas such as liberal arts courses, administration, supervision and pedagogical theory will only be mentioned.

This study does not include the data dealing with implementation of the listed teaching skills.

This study does include administrators who are not presently teaching; therefore it is possible that some bias may be represented.

Assumptions of the Study

The study will present teaching skills that can be utilized in the preparation of both suburban and urban elementary school teachers.

This study will include respondents with a wide variation of expertise in education and they will possess an understanding of what skills teachers should possess before teaching in elementary schools.

This study will provide data that can be useful in preparing secondary teachers for the public schools and teachers who have aspirations of teaching in colleges.

This study will involve many educators who have had prior experiences in the utilization of teaching skills.

While each of the specific teaching skills in this study were identified in three model teacher education programs further data in rating these skills should not realize outstanding differences.

Summary

While the emphasis in teacher education programs is still geared towards meeting the needs of elementary and secondary school children, many educational specialists such as: Conant, Benton, Silberman and Burke believe a new component should be added to teacher education programs, that provide prospective teachers with teaching skills. They also believe that teaching skills for prospective educators are necessary if more effective teaching is going to occur in classrooms on all levels of education.

The term "skills," has become overly used and confusing to many individuals associated with education. Sometimes this term is referred to as what a child in the elementary school should learn, but in this study the term skills is referred to as the development of behaviors that a future teacher should know before teaching.

Therefore, a questionnaire is used in this study for the purpose of developing a priority listing of forty

teaching skills that are found in three of the nine original teacher education programs.

CHAPTER II

REVIEW OF LITERATURE

There have been changes in teacher education
programs since 1968 in some of the larger universities and
colleges. Throughout the United States such schools as the
University of Massachusetts, Michigan State University and
the University of Georgia have made significant improvements
in their teacher education programs. The motivation for
maintaining and expanding these program improvements has
been aided by planning and implementation grants from the
federal government. This funding has allowed each program
to add a component of competency-based education. In
volume I, The Feasibility of the Georgia Educational Model
for Teacher Preparation--Elementary, University of Georgia,
a detailed historical background was presented:

> In the fall of 1967, the United States Office of Educa-
> tion, Bureau of Research (USOE) published and distributed
> widely to concerned educational institutions requests
> for Proposal Number OE-68-4 (USOE, 1967) which called
> for educational specifications for a comprehensive
> undergraduate and in-service teacher education program
> for elementary teachers. The purpose for this action
> was stated to be the utilization of new knowledge,
> materials, and methodologies produced by research and
> development activities in the creation of a variety of
> sets of detailed educational specifications which could

be used as guides in developing sound teacher education programs.[13]

Administrative officers in the different universities met with their own staffs in 1967 to consider preparing proposals to the Office of Education, Washington, D.C. After some discussion about a possible program of this nature, committees and task force groups were formed for the purpose of identifying and starting work on major elements of the program and outlining procedures for developing the model. The University of Massachusetts and Michigan State University in their feasibility studies, reaffirm the information presented in the feasibility study at the University of Georgia, because their beginning involvement was similar.

The three education programs under study completed their first drafts and sought reactions of educational consultant. Further refinements were made based on the consultants' reactions. Each proposal was completed and mailed in time to meet the deadline set by the United States Office of Education in 1967.

Ninety proposals were submitted to the Office of Education, and out of that number, nine received confirmation that they would be funded. Official announcement of approval came in 1968 for the first draft of each teacher

---

[13]University of Georgia, The Feasibility of the Georgia Educational Model for Teacher Preparation--Elementary, ed. by C. Johnson (Athens: School of Education, 1970), p. 1.

education program under study. Eventually, other program
drafts were submitted by the University of Massachusetts,
Michigan State University and the University of Georgia for
the purpose of including improvements in different areas of
teacher education but the basic concept of proficiency was
maintained throughout the writing.

Johnson, one of the writers for the Georgia Model
states:

> On March 1, 1968, USOE announced that the Georgia
> proposal was among nine which had been funded. For ap-
> proximately seven months the staff under the supervision
> of the Dean of the College of Education pursued its
> objectives. The project was aided by an executive
> committee of outstanding educational specialists from
> the University of Georgia and an advisory board composed
> of representatives from the University of Georgia, the
> State of Georgia, and the nation. The product was a
> final report containing the promised detailed specifi-
> cations for a comprehensive educational program for the
> preparation of elementary teachers.[14]

Model Teacher Education Program
University of Massachusetts

The University of Massachusetts' Model Elementary
Teacher Education Program organized a totally new curriculum
which they called METEP. This METEP curriculum was based
on conceptions of performance criteria which requires
complex approaches and different methods of integrating
material in teacher education. In an attempt to provide
institutionalized change, the educational specialists at

---

[14]Ibid., p. 2.

the University of Massachusetts' Model Elementary Teacher
Education Program listed seven overriding objectives in
their proposal that was submitted to the United States
Department of Health, Education and Welfare. These objec-
tives included goals such as: (1) to prepare teachers
for change and not stability; (2) to develop a flexible
program which includes specific performance criteria based
on an analysis of knowledge, skills and attitudes in Human
Relations, Behavioral, and Content areas; (3) to differ-
entiate the roles of teachers and require different compe-
tencies in new areas of specialization; (4) to include as
many widely overall strategies as possible in training
efficiencies; (5) to provide continuous diagnosis of the
needs of each trainee and constant evaluation of the program
components designed to meet those needs; (6) to develop
multiple program alternatives, so that there are never
fewer than two alternatives and instructional paths to the
same objective; and (7) to develop a closely knit relation-
ship between preservice and inservice training. These
goals added credence to the Model Teacher Education Program
at the University of Massachusetts as being different than
most teacher education programs since it was able to provide
performance criteria and continual inservice for future
teachers. The writers of this program elucidated their
intent for the future by stating:

The role of the elementary school teacher is changing
and will continue to change in the future. We must
prepare teachers for change and not stability. The
concepts of performance criteria, multiple instructional
routes, differentiated staffing patterns, and continual
inservice training programs appear to offer a meaningful
approach to education in the future.[15]

However, the educators in METEP, went beyond the
normal paper concept and eventually included in its
organizational structure different phases which incorporated
many of the original objectives in its curriculum.

Preparatory Phases in METEP
University of Massachusetts

The designers of the METEP program made the decision,
after much deliberation, to build into its curriculum, areas
of competencies that are found in performance criteria.
(Table 1 represents the different areas of competencies to
be used in the METEP curriculum.)

The designers of the METEP program believed future
reassessment of the established curriculum could prescribe
a need for changes in the listed behaviors. Therefore, they
decided to develop a flexible structure for the purpose of
adding or deleting competencies in performance criteria.
James M. Cooper, Project Director states:

----

[15]University of Massachusetts, Model Teacher
Education Program, Final Report (School of Education,
Amherst, Massachusetts, 1968), p. 4.

TABLE 1

PERFORMANCE CRITERIA

Cornerstone Criteria	Content Criteria
1. Human Relations Skills	1. Science
2. Behavioral Skills	2. Language Arts
Service Criteria	3. Mathematics
1. Evaluation Skills	4. Aesthetics
2. Media	5. Social Studies
3. Supervision	6. Foreign Language
4. Technology	7. Pre-School

Source: University of Massachusetts, Final Report, Model Teacher Education Program (School of Education, Amherst, 1968), p. 14.

One way of visualizing the METEP is to imagine it as a flowing stream ever growing as it moves toward its goal. The main stream is the METEP. The off-shoots, which also are constantly growing, represent performance criteria in the various areas of competencies which a differential staff in an elementary school might possess. There is nothing fixed about these areas of competencies. It is expected that more competencies would be added as needed, and some might be deleted. At the present, however, these are the areas in which teachers would receive training in our program. Other institutions might define different areas of competencies which they felt to be more appropriate.[16]

Although, changes in the different teacher competencies would occur after a period of time, the Cornerstone Criteria and Service Criteria received the highest priority. Human Relations and Behavioral Skills that are included in

---

[16] Ibid.

Cornerstone Criteria are competencies in the understanding of the self, of others, and of relationship of the self to others. Mastery of these teaching skills would help an individual possibly become not only a better person, but also an effective teacher.[17]

Service Criteria includes the evaluation of the student by both college personnel and the participating classroom teacher. The latter judge the performance of the student according to which level he is presumably operating at. Content Criteria constitutes the type of curriculum that has been traditionally used to train elementary school teachers.

The area of Content Criteria represents content areas which form the curricula in most elementary schools, such as science, language arts, mathematics, aesthetics, social studies, and foreign language. Along with this type of curriculum is included special programs on pre-school education. Although this Content Criteria reflects a traditional elementary school curriculum, the substance of these areas have been modified so as to meet the principles of objectives of the METEP.[18]

The Model Elementary Teacher Education Program is a two-semester sequence open to freshmen, sophomores, juniors

---

[17]Ibid.

[18]Ibid., p. 16.

and seniors. During the two semesters, prospective teachers in the METEP program are expected to experience four different phases during their preparation. These phases are as follows: Pre-Practicum Phase, Pre-Practicum or Workshop Phase, Practicum Phase, and Post-Internship or Post-Practicum Phase. These phases were developed for the purpose of making sure different elementary performance criteria competencies could be observed, experienced and assessed by teachers and students in this program.

Phase I

The Pre-Practicum Phase of the program provides activities that consist of field experiences, classroom exposure to different subject content and open-classroom concept. During the completion of this phase of the program it is suggested by the program administrators, that students make the decision in whether or not they will continue in this type of teacher education program. Commitment is necessary because of the types of training each student must receive in the other phases that are essential in developing performance criteria competence. Richard Konicek, the present director of METEP, describes the first semester activities in the Model Teacher Education at the University of Massachusetts: "The first semester of the two-semester sequence consists of an eighteen credit-hour offering designed to provide participants with these

competencies necessary to function effectively in an integrated day program as well as in programs more traditional in nature."[19]

Although the first phase of METEP is described by the former director as traditional, relevant modifications in the curriculum has made the content information very important for prospective teachers.

Phase II

This Pre-Practicum Phase, prepares students in professional information, humanistic education, field experiences, method courses and teaching skills. This phase is sometimes referred to as the "workshop" part of the program, because of the variation in what is provided in the curriculum for students in METEP. Ann Schmer, a staff member associated with the METEP, mentioned in an interview: "This phase of the program provides an opportunity for undergraduates to practice different skills in Cornerstone Criteria and Service Criteria."[20]

Phase III

Phase III is called the Practicum or Internship. During this phase students are involved with their practice

---

[19]Ibid.

[20]Interview with Ann Schmer, Staff member in METEP, University of Massachusetts, March 1, 1973.

teaching, workshops, and inservice development on open-education. Each undergraduate has the opportunity to put into practice the different teaching skills in Cornerstone Criteria, and Service Criteria.

Mrs. Schmer, while being interviewed, stated: "METEP students are not allowed to participate in practice teaching unless they have satisfactorily shown competence in each of the required teaching skills in Performance Criteria. METEP students also continue gaining experiences in workshops that are structured for the development of teaching skills in open-school concepts."[21]

Director Richard Konicek further explains this phase:

> During the full second semester of the two-semester sequence each METEP participant will serve an internship in an integrated day setting with a carefully selected and specially trained supervising teacher. He will earn fifteen (15) credit hours for this experience.[22]

The participant in the METEP program for the first three phases are endowed with a very formidable program that seems to more than adequately meet the goal established by the Model Teacher Education Program designers from the University of Massachusetts.

---

[21]Ibid.

[22]University of Massachusetts, Model Teacher Education Program.

Phase IV

The final phase, which is strictly voluntarily undertaken by students in this program is the Post-Internship or Post-Practicum Phase. This conclusive stage of METEP synthesizes and reaffirms all of the previously experienced phases. In conversation Mrs. Ann Schmer explained: "This program is based as a whole on a competency-based and open-education approach toward teacher education."[23] Mrs. Schmer went on to explain that, within each phase of the Model Teacher Education Program (METEP) at the University of Massachusetts, teaching skills are expressed in behavioral terms for the purpose of clarifying the particular competencies that each trainee should obtain during the training period."[24]

It is important to note, at this time, the teaching skills referred to as part of the METEP's curriculum at the University of Massachusetts were utilized in this study to compare with teaching skills in the University of Georgia's Model Teacher Education Program and Michigan State University's Model Teacher Education Program. Like the University of Massachusetts, Michigan State University has in its curriculum teaching skills that are provided for their undergraduates.

_____

[23]Interview with Ann Schmer, March 1, 1973.

[24]Ibid.

Model Teacher Education Program
Michigan State University

The Model Teacher Education Program at Michigan
State University is called the Behavioral Science Teacher
Education Program (BSTEP). The designers in BSTEP used the
term Behavioral Science because many of the disciplines
experienced by the future teachers in this program are of
the clinical behavioral style. These educators define this
title as:

> The term behavioral science is used in its eclectic
> sense, cutting across a variety of established disci-
> plines to denote those aspects that contribute basic
> empirical knowledge about the activities and values of
> man. Some of the disciplines of special import in a
> clinical behavioral style of teacher education are
> psychology, sociology, anthropology, political science,
> economics, and various sub-disciplines such as cognitive
> development, psychology of learning, social psychology,
> cultural anthropology, linguistics and communications.[25]

A further explanation was given by these educators in the
BSTEP when they stated:

> The program is designed to focus the skills and
> knowledge of behavioral scientists on educational
> problems, translating research into viable programs for
> preservice and inservice teachers. The traditional
> concept of research as theory is not discarded, but the
> emphasis is shifted to a form of practical action-
> research in classrooms, laboratory and field experi-
> ences.[26]

The title that is used by BSTEP emphasizes a heavy

---

[25]Michigan State University, Feasibility Study:
Behavioral Science Teacher Education Program (East Lansing,
Michigan: Michigan State University, 1969), p. 7.

[26]Ibid.

concentration in behavioral science for its students from
the freshman year throughout preservice. This basic concept
of the background of the title is carried out in the
objectives of the BSTEP. Consequently, the title of the
Model Teacher Education Program at Michigan State University
does have significant meaning as to what should be expected
in this program.

The BSTEP has three major goals. Although different
from the goals of METEP at the University of Massachusetts
the Behavioral Science Teacher Education Program at Michigan
State University does want competencies in teaching skills
for their undergraduates. The writers of BSTEP believe:

> (1) Development of a new kind of elementary school
> teacher who is basically well-educated, engages in
> teaching clinical practice, is an effective student of
> the capacities and environmental characteristics of
> human learning, and functions as a responsible agent of
> social change. (2) Systematic use of research and
> clinical experience in decision-making processes at all
> levels. And (3) a new laboratory and clinical base,
> from the behavioral sciences, on which to found under-
> graduate and inservice teacher education programs, and
> recycle evaluations of teaching tools and performance.[27]

The writers of the Behavioral Science Teacher
Education Program at Michigan State University, state
emphatically in their objectives how they want to develop
a new kind of elementary school teacher who is well educated,
and further describes other areas that will be helpful in
accomplishing this task.

---

[27]Ibid., p. 6.

<u>Preparatory Phases in BSTEP</u>
<u>Michigan State University</u>

Michigan State University BSTEP places emphasis on
five phases in its teacher education program for under-
graduate students who are already teaching. The six phases:
General-Liberal Education, Scholarly Modes of Knowledge,
Professional Use of Knowledge, Clinical Experiences, Human
Learning, and Continued Professional Development are
structured to provide a variety of experience for both
undergraduate students and graduate students.

<u>Phase I</u>

General-Liberal Education, the first phase has in
its curriculum a variety of basic core disciplines that are
centered around the understanding of man, his behavior, his
ideas, his society and his world. The BSTEP writers,
provide further information on this phase when they explain:

> A variety of human qualities are sought in the citizen
> teacher in the general-liberal education program, since
> individuals live and flourish in a society which lives
> by the qualities of individuals within it. The en-
> compassing and overriding objective of general-liberal
> education is to relate the student's knowledge to the
> study of human behavior. Rather than providing a
> series of survey courses, BSTEP proposes a basic core
> of general-liberal education experiences which empha-
> sizes the contributions, the various disciplines of
> liberal arts and sciences make to an understanding of
> man, his behavior, his ideas, his society, and his
> world.[28]

---

[28]<u>Ibid</u>., pp. 9-11.

Undergraduates in this phase not only explore western man's cultural aspects and values, but are exposed to non-western thought and values. Table 2 represents the total curriculum used in the first phase of BSTEP. Before completion of this phase a series of experiences that are designed for developing understanding by prospective teachers of alternate social, political and economic value systems should have occurred.

TABLE 2

GENERAL-LIBERAL EDUCATION

Humanities	Social Science
Art	Geography
Music	Anthropology
Literature	Sociology
Cultural History	Political Science
	Economics

Source: Michigan State University, Behavioral Science Teacher Education Program, p. 11.

Phase II

The second phase that students in the BSTEP experience is called Scholarly Modes of Knowledge. In the subsystem of this phase, a variety of disciplines are seen in Table 3 as included.

This phase examines information related to elementary school curriculum structures of discipline and

TABLE 3

SCHOLARLY MODES OF KNOWLEDGE

<u>Linguistics System of English</u>   <u>Literature for Children</u>

Phonology   Fiction
Morphology   Non-Fiction
Semantics   Non-Print Media
Syntax and Social Dialects

<u>Communication Process</u>   <u>Fine Arts Modes</u>

Interaction between Teachers   Dance
Interaction between Pupils   Music
Interaction between Parents   Drama
Role Playing
Simulation Games

<u>Elementary Science</u>   <u>Social Science</u>

Classifications   Social Conflicts
Life Cycles   Decision Making
Interaction   Systematic Thinking
Energy Relations   Methodological Sophistica-
                                          tion
                                       Emphatic Responses

Source: Michigan State University, <u>Behavioral Science
          Teacher Education Program</u>, p. 105.

techniques for solving problems.   BSTEP writers state:

> In Social Science, the Scholarly Modes center on the
> structure of the social world, conflict and Decision-
> Making, in relation to the individual and educational
> institutions. Systematic thinking, methodological
> sophistication and emphatic responses are fostered.
> In the structure of the social, political and economic
> world, consequences of stress such as mass movements,
> mass violence, deterrents and escalation are examined,
> and the correctives to be found in bargaining and group
> integration.[29]

Strong emphasis seems to be suggested by the

---

[29]<u>Ibid</u>., p. 12.

designers of the BSTEP in the Social Science curriculum in this phase because of the different decisions that a prospective teacher has to make in a regular classroom situation.

Phase III

Probably the most thoroughly explained curriculum in the BSTEP at Michigan State University is the Clinical Experiences phase. This phase extends throughout the four-year undergraduate program and includes a variety of important subsystems. The subsystems in the Clinical Experiences curriculum includes exploring teaching, career-decision, analytical study, pre-internship and internship.

In explaining this phase the writers of the Behavior Science Teacher Education Program state:

> Extending through four years of teacher education the Clinical Experiences undergraduate program includes an initial exploring teaching experience and a concluding year's internship in a clinic-school network operated by the university, elementary schools and other educational agencies. Exploring teaching includes tutoring fellow students, assistant-teaching and experiences with children in school and new-school settings. Career-decision experiences are initiated during the first year, but the choices are continually refined throughout the program. Analytical study of teaching also permeates the total program, with changing emphasis each year. This facet includes simulated experiences, small and large group discussions, and individual explorations on the university campus. It also includes field experiences for community understanding, including socioeconomic make-up, physical school plant, political influences, organization and administration, and human resources. The pre-internship practicum during the

third year leads to the full-year internship during the last year.[30]

A closer investigation of career-decisions, analytical study of teaching and pre-internship reveals some of the specific teaching skills that were selected for the study. While many of the specific teaching skills identified for this study were selected from the behavioral objectives format that were written in describing the different skills undergraduates were expected to experience at Michigan State University, the University of Massachusetts and the University of Georgia programs, some general and specific teaching skills were listed narratively in explaining subsystems in the different phases of each program. For example, Table 4 presents categories that are provided for BSTEP undergraduates in the three subsystems mentioned as part of Clinical Experiences.

Table 4 presents four general teaching skills, such as Human Relations Skills, Planning Skills, Evaluation Skills and Instructional Skills. These same general skills were presented in the METEP program at the University of Massachusetts. Therefore, it seems that part of the intent of the educators in both programs is to feature different teaching skills in their curriculum that will provide prospective teachers with teaching competencies.

---

[30]Ibid., p. 13.

TABLE 4

BSTEP THREE SUBSYSTEMS

Career-Decisions	Pre-Internship
Self-Concept	Teaching Techniques and Strategies
Teaching-Learning Process	
Personal Teaching Styles	Simulated and Field Experiences in Skills and Strategies
Tutoring (one on one)	Teamed Field Experiences in Planning and Evaluation
Simulation	
Large Group Discussions	Analytical Study
Small Group Discussions	Professional Skills in Analysis Based
	Interaction Techniques

Source: Michigan State University, Behavioral Science Teacher Education Program, p. 45.

The last subsystem in Clinical Experience that prospective teachers at Michigan State University experience is called the Internship. The internship curriculum features students in the actual experience in a performance-based situation in either a public or private school. The educators at Michigan State University believe:

> This program seeks the development of a new kind of elementary school teacher, one who is liberally educated and who engages in teaching as a clinical practice . . . is an effective student of human learning, of society and its environmental characteristics and who assumes a role as a responsible agent of social change.[31]

---

[31]Ibid.

Phase IV

The fourth phase in BSTEP focuses attention upon Human Learning. Although Human Learning is supported by experiences throughout the program phases, over 300 single purpose modules are provided in this phase as a means of educating prospective teachers in aspects of Human Learning.

In explaining this phase the writers of the BSTEP program state:

> Growth and development of the preschool child, educational psychology, and the social and philosophical foundations of education are examined by the undergraduates. Advanced study is proposed, for graduates, in educational psychology and the social and philosophical foundations. The specific contributions of behavioral sciences are focused upon in Human Learning, supported by experiences throughout the program.[32]

Finally, the Human Learning phase, which is provided in the BSTEP program seems to be a very important component. This phase does provide prospective teachers with an understanding of different aspects in both the physical and mental development of children.

Phase V

The last phase in the BSTEP program is called Continued Professional Development. This phase focuses attention on features of improving teaching skills beyond internship. The writers of this program refer to this phase as:

---

[32]Ibid., p. 14.

Within the Clinic-School Network, continued improvement
beyond preservice education is structured through re-
sourced teaching and toward professional instructional
roles for highly capable leaders. The educational
media specialist is described as an example of advanced
specialization and leadership. The training of an
Associate Teacher, as an example of auxiliary personnel
who may be available in the school community, also is
discussed.[33]

The BSTEP curriculum provides the opportunity for a

variety of individuals to receive training during this

phase. This subsystem, which is called Clinic-School

Network, still focus its attention on its undergraduates;

however, graduate students and auxiliary personnel are

involved in being either trained or retrained systematically

in the improvement of teaching skills.

In summary the BSTEP identifies over 2700 different

teaching behaviors that are provided for their under-

graduates in the different phases of their program. How-

ever, only forty of these teaching skills agreed with the

University of Massachusetts' Model Teacher Education Program.

<div align="center">

Model Teacher Education Program
University of Georgia

</div>

The University of Georgia's Model Teacher Education

Program which is called Georgia Educational Model Specifi-

cations for the Preparation of Elementary Teachers, had in

its program objectives many of the same basic ideas as both

---

[33]Ibid.

the University of Massachusetts' METEP and Michigan State
University's BSTEP. These objectives report on the basic
approach to advance the effectiveness of prospective
teachers and the goals to accomplish this task. Johnson,
Shearron, and Stauffer, the directors of the Georgia Model
state:

> Teaching behaviors alone could not provide the total
> content for a teacher education program. Also relevant
> were general instructional principles, teaching prin-
> ciples, learning principles, and organizational prin-
> ciples. These principles provided certain teacher
> objectives and additional teacher behaviors which, in
> turn, provided an additional basis for the job analysis.
> Knowledge from educators in the field, plus knowledge
> of the nature of the child and how he learns, provided
> further information for the objectives.[34]

These designers of the Georgia Model further explain:

> The teacher education program should also attempt to
> develop a teacher with adequate personality character-
> istics. Consequently, humanistic learnings, attitudes,
> and values were incorporated into the program. It is
> acknowledged, that evaluative criteria for measuring
> attainment in these areas are inadequate. Despite this
> problem, the indicators are that the personality
> development of the teacher is as important as his
> intellectual development and demands its inclusion in
> the model.[35]

Preparatory Phases: University of Georgia

The University of Georgia's Model Teacher Education

---

[34]University of Georgia, Summary of Georgia Educa-
tion Model Specifications for the Preparation of Elementary
Teachers (Washington, D.C.: U.S. Department of Health
Education, 1968), p. 2.

[35]Ibid., p. 4.

Program has in its curriculum for preparing teachers three
instructional phases. These three phases are called Pre-
Professional, Professional, and Specialist or Inservice.

Phase I

Pre-Professional phase refers to the period of time
in which undergraduate students receive educational informa-
tion relevant to the type of paraprofessional's role they
are performing in the public schools; however, the Pre-
Professional phase includes only undergraduates. Therefore,
students during this phase are expected to develop teaching
competencies in a completely different way from the two
programs previously discussed. The Pre-Professional
curriculum not only provides performance specifications,
but provides teacher competencies for specific job descrip-
tions. Students during this phase take over certain jobs
in the Georgia public schools that have responsibilities
usually performed by a regular classroom teacher. These
students are expected during this phase to perform a
variety of non-instructional tasks and activities under the
direction of an experienced teacher.[36] Also, the writers
of the Georgia Model state:

> Completion of the pre-professional program will provide
> the student with competency for paraprofessional service
> as a teaching assistant in the elementary school, the
> associate's degree, and the basic prerequisites for

[36]Ibid.

admission to the professional program. The pre-professional program will require approximately 18 months for completion. After 9 months the student will be competent to serve as a teacher's aide. About 90 percent of the experiences provided in the pre-professional program will be in general (liberal) education. Ten per cent of the experiences will be in paraprofessional and basic professional. Approximately 12 weeks of on-the-job paraprofessional training will be required of the student, 6 weeks about mid-way in the last half.[37]

The designers of the Georgia Model believe that many types of experiences can be gained by students involved in this type of situation. Students in this program can move from one level of proficiency to the next. Consequently, this phase in the Georgia Educational Model Specifications for the Preparation of Elementary Teachers, is comparatively different than the other two model teacher education programs under study in that it places individuals in a differentiated staffing pattern while the different teacher competencies in skill are ascertained.

Phase II

Professional phase in the Georgia Model Specifications for the Preparation of Elementary Teachers is that stage in which teaching skills are taught, practiced and evaluated.

The Professional Program will require approximately 22 months for completion. Approximately 25 per cent will be on general (liberal) education requirements, 30 per cent to professional education. An area of

---

[37]Ibid.

competency is a teaching area in which the general
elementary teacher has more knowledge, understanding,
and skill than in others.

During the program the average qualified student
will have three on-the-job practical laboratory expe-
riences of approximately six weeks each in elementary
schools, each with different age groups. Placement in
these laboratory experiences will be such that the
students will have opportunities to work with children
of various socioeconomic and ethnic characteristics.[38]

The educators in this professional subsystem
provide students with a large number of teaching skills
from the performance specification curriculum. The
laboratory experience is one way in the Georgia Model that
students can practice teaching skills. If prospective
teachers in this program are unable to meet skill profi-
ciency requirements during the professional subsystem they
then are required to be recycled until effectiveness is
proven in all of the teaching skills offered for this
subsystem.

Phase III

When students in the Georgia program become involved
in the Specialist phase, eight areas of competency charac-
teristics are offered. The writers of the Georgia Model
explain;

The Specialist or inservice program provides the student
with the specialist's degree in one of fifteen areas--
either in one of the eight areas of competency charac-
teristics of the professional program or in human
development and learning, instructional media, pupil

---

[38]Ibid., p. 5.

personnel, curriculum and program development, school community relations, evaluation and professional development.[39]

Arrangements by Georgia's Model Program educators were made for students to spend fifty per cent of time during this phase in their chosen area of specialization. However, other experiences are required in making up the remaining percentages for completion.

Performance Specification forms the core of the complete model. Although not defined before in this study, Performance Specification is described by the Georgia program educators as "a particular competency, or competency requirement, that a teacher should possess in order to operate at optimum effectiveness in a teaching-learning situation."[40] Each of the model preparatory programs under study mentions as part of their curriculum Performance Criteria or Performance Specifications. These behaviors although stated differently are similar in that they provide a large number of general and specific teaching skills, for example, the University of Georgia mentions some 2000 specifications for teacher performance and Michigan State University names 2700 Performance Criteria categories.

Under the headings of Performance Specifications

_____

[39]Ibid., pp. 5-6.

[40]Ibid., p. 6.

and Performance Criteria general teaching behaviors are listed as subsystems for all three programs. An illustration of this is presented in Table 5.

TABLE 5
GEORGIA MODEL PERFORMANCE SPECIFICATION

Instructional Improvement	Specialized Training
Instructional Development	Composition
Educational Tests and Measurement	Psychology
Cognitive Process	Drama

Source: The University of Georgia, Model Elementary Teachers Program, p. 6.

The University of Georgia is different in the method of presenting specific skills to its students, but this Model Teacher Education Program is very similar to the Model Teacher Education Program at the University of Massachusetts and Michigan State University in all other aspects.

There were four general skills that were discussed throughout this study. These four general skills are defined in Chapter I. (See Table 6 for the list of General Teaching Skills.) While each model program names general skills that cluster a large number of specific skills, they present behaviors that are different only in what they are called. An illustration of this can be seen in the tables

that describe each subsystems curriculums for the model
teacher education programs. Therefore, Instructional
Skills, Planning Skills, Evaluation Skills and Human Rela-
tion Skills were selected as the general skills for this
study, and all specific teaching skills became the major
portion of the study.

TABLE 6

GENERAL TEACHING SKILLS

Instructional Skills	Planning Skills
Evaluation Skills	Human Relations Skills

Source: Refer to Chapter I in the Definition of Terms.

Summary

In reviewing the second chapter, which is called
"Review of Literature," it became evident that there are
more "similarities" than "differences" between the three
model teacher education programs. Each of these model
programs at the University of Massachusetts, Michigan State
University and the University of Georgia provide for their
students opportunities to engage in area such as, Liberal
Arts, Professional Education Awareness, Constructive
Objectives, and Specific and General Teaching Skills.
(Although specific teaching skills were mentioned throughout
the first two chapters, some further indepth information on
these skills are explained in detail in Chapters III and IV.

CHAPTER III

TESTING INSTRUMENT

The purpose of this study is to develop a priority
listing of specific teaching skills essential for prospec-
tive teachers to learn before becoming gainfully employed
in the teaching profession. Although the Model Teacher
Training Programs at the University of Massachusetts,
Michigan State University and the University of Georgia
have identified both general and specific teaching skills
it is important to mention first how the information
concerning the identification of teaching skills was
obtained and where it was located.

The sources used in locating specific teaching
skills for this study came from the Eric Files which
explained each model teacher education program in detail.
The Eric Files presented information from Feasibility
Studies, Summaries and Final Reports that were written by
educators from the University of Massachusetts, Michigan
State University and the University of Georgia. In these
Files, specific teaching skills are mentioned in two ways.
First, each program explains its systems and subsystems
which usually include content that each prospective teacher

is expected to experience. Secondly, a detail picture is presented in the form of behavioral objectives. The structure of each program has been explained in Chapter II, however, further information about these systems is expressed in behavioral terms.

In reviewing each model teacher education program's final report or feasibility study's behavioral objective, it was discovered that there was agreement in forty teaching skills. Table 7 presents forty specific teaching skills that were located while cross-comparing the different skills from each model education program.

TABLE 7

SPECIFIC TEACHING SKILLS

1.	Verbal Responses	19.	Lesson Plans
2.	Non-Verbal Responses	20.	Unit Planning
3.	Verbal and Non-Verbal Responses	21.	Behavioral Objective
		22.	Classroom Management
4.	Fluency in Asking Questions	23.	Self Concept
5.	Probing Questions	24.	Decision Making
6.	High Order Questions	25.	Diagnostic
7.	Divergent Questions	26.	Test Making
8.	Reinforcement	27.	Test Procedures
9.	Recognizing Attending Behavior	28.	Standardized Testing
		29.	Small Group
10.	Silence and Non-Verbal Cues	30.	Large Group
11.	Cueing	31.	Tutorial or One to One
12.	Set Induction	32.	Introduction
13.	Stimulus Variation	33.	Motivational
14.	Closure	34.	Summarizing
15.	Use of Examples	35.	Panel Discussion
16.	Lecture	36.	Using Oral Report
17.	Planned Repetition	37.	Problem Solving
18.	Completeness of Communication	38.	Reviewing
		39.	Individualized Study
	40. Record Keeping		

Source: Refer to p. 144 in Appendix A.

These forty Specific Teaching Skills fall into four major skill groups. The four groups have been identified in this study as General Teaching Skills (see Chapter IV for definitions of specific teaching skills).

All of the specific teaching skills are expressed in behavioral objectives, under either performance criteria, performance specifications or performance based curriculum. Therefore, the process of comparison and selection was performed by comparing informational data in each of the major systems that were prepared for future teacher training programs. In concluding the selection process a cluster process was used. This process necessitated placing the specific teaching skills under the four general teaching skills for the purpose of a functional classification.

Interestingly enough, the specific teaching skills that were placed under the general area of instructional skills, outnumbered all other general areas. An example of this is found in Table 8.

In the Human Relations area some seven specific teaching skills are identified. A picture of these specific skills are seen in Table 9.

These Specific Teaching Skills were favored more in the Michigan State University and the University of Massachusetts' Model Teacher Education Programs. In fact, both universities presented separate curriculums of Human Relations Skills throughout their programs, so prospective

TABLE 8

INSTRUCTIONAL SKILLS

1. Verbal Response
2. Non-Verbal Response
3. Verbal and Non-Verbal Response
4. Fluency in Asking Questions
5. Probing Questions
6. High Order Questions
7. Divergent Questions
8. Reinforcement
9. Silence and Non-Verbal Cues
10. Recognizing Attending Behavior
11. Cueing
12. Set Induction
13. Stimulus Variation
14. Closure
15. Use of Examples
16. Summarizing
17. Motivational
18. Introduction
19. Lesson Review
20. Individualized Study
21. Panel Discussion
22. Lecture
23. Planned Repetition
24. Completeness of Communication
25. Using Oral Report

Source: Interview with Ann Schmer, University of Massachu-
         setts, School of Education, March 16, 1973.

         Interview with Dr. Elliott Williams, University of
         Hartford, School of Education, February 21, 1973.

TABLE 9

HUMAN RELATIONS SKILLS

1. Self Concept
2. Decision Making
3. Small Group
4. Large Group
5. Tutorial (one on one)
6. Problem Solving

7. Classroom Management

Source: Interview with Ann Schmer, University of Massachu-
         setts, School of Education, March 16, 1973.

         Interview with Dr. Elliott Williams, University of
         Hartford, School of Education, February 21, 1973.

teachers would have the opportunity to involve themselves

in this area of developmental teaching skills during every

semester of their training. The University of Georgia

included Human Relations Skills only in their Performance

Specification curriculum.

Still the number of specific teaching skills

clustered under the General Skills of Human Relations is

larger than the number of specific teaching skills identi-

fied and selected for the general skills of Planning and

Evaluation. Four specific teaching skills were identified

under each of the last two general skill areas of Planning

and Evaluation. These specific teaching skills are

presented in Table 10.

TABLE 10

PLANNING AND EVALUATION SKILLS

Planning Skills	Evaluation Skills
1. Lesson Planning	1. Diagnostic
2. Unit Planning	2. Test Making
3. Behavior Objective	3. Standardized Testing
4. Record Keeping	4. Testing Procedure

Source: Interview with Ann Schmer, University of Massachu-
setts, School of Education, March 16, 1973.

Interview with Dr. Elliott Williams, University of
Hartford, School of Education, February 21, 1973.

The clustering of all four general skills and the

forty specific skills provided the necessary information

for developing a testing instrument. This testing tool

would include all of the behaviors that have been identified

in each of the three model teacher education programs that

suggest importance for prospective teachers.

The Testing Instrument

Even though general and specific teaching skills were identified and selected from the Model Teacher Education Programs at the University of Massachusetts, Michigan State University and the University of Georgia the purpose of this study was to develop a priority listing of these skills so as to find out which of these forty common teaching skills are the most important for prospective teachers to obtain before teaching as a regular teacher. Therefore, a questionnaire to fulfill the purpose of the study was developed.

Although questionnaires have been found to be problematical in administration, it was selected over the interview technique for the following reasons:

1. Type of persons sampled.

   Lunney suggests that the best type of tool to present to educators is a questionnaire because of their educational backgrounds.[41]

2. Need for unbiased data.

   An interviewing format suggests having to interact with respondents and Lunney again expresses his opinion "if the interviewer does not have the competency in interviewing biased data may be gathered."[42]

3. Cost and time factor.

   Such aspects as cost and time were taken into consideration as for money needed for transportation to

---

[41]Lunney, Construction of Questionnaires, p. 1.

[42]Ibid.

locations where the study would occur and time it would take to test one hundred respondents, plus time and money in compiling the returns of certain data could be exhorbitant.

Construction of the Questionnaire

The questionnaire was constructed according to guidelines established by Bowley.

(1) Ask for the minimum information needed for the purpose at hand; (2) the questions should be those that the informant is able to answer; (3) the questions should require an answer of 'yes' or 'no' or a simple number or something equally definite and precise; (4) the questions should be such as will be answered truthfully and without bias; and (5) the questions should be not unnecessarily inquisitorial.[43]

Initially, a rough draft was developed which included a brief explanation of the different ratings, directions stating how to take the test, a cover sheet explaining the need and uses of the questionnaire, and specific skills grouped in categories under various general skills. Such an approach is believed by Lunney as being the correct way to validate a testing tool.

The various items on the questionnaire were re-examined for the purpose of assessing the overall value of this instrument. After completing the assessment of the first draft, it was found that the rating system proved to be weak, and the direction on how to evaluate the specific teaching skills was misleading. The rating process was

---

[43]_Ibid._

changed from a combination number and checking system to a
strictly checking procedure, and the directions for the test
were made more precise so the respondents would not become
confused.

After completing the second draft different educators
at the University of Massachusetts were given this tool and
asked to check and reassess its value. This particular
process was continued until fourteen different educators at
the University of Massachusetts decided the final draft was
feasible to use in the study. Such revisions were necessary
so a more efficient tool could be used.[44]

Table 11 represents the terms that were used in the
questionnaire to rate the Specific Teaching Skills.

TABLE 11

RATING TERMS

1. High Priority   3. Low Priority

2. Average Priority   4. Unable to Rate

Source: Refer to p. 144 in Appendix A.

The reason for selecting these different terms was that they
described the range of responses to what was being measured.
Lunney reports from Backstrom and Hursh who offer:

> The problem of measuring the strength of the respondent's
> feeling can be done in various ways. One way is to ask

---

[44]Ibid., p. 6.

him to express his opinion in a form for which a psychological scale has already been established.[45]

Next, a pre-test of the questionnaire was conducted to find out if the items did in fact perform as designed. Lunney in this connection states:

> The teacher does this same thing when she uses items from files which contain items of proven effectiveness. Finally, the researcher must edit and specify procedures for the use of this questionnaire. This means elimination of items which did not provide the information they were designed to obtain, perhaps the inclusion of more items will provide the information (a questionnaire may be pre-tested several times before it is ready for final use) and improving the instructions and format so that the questionnaire can be easily completed by the respondent.[46]

The questionnaire was pre-tested on five different occasions and the results of each testing provided additional information for the development of a valid tool. The first pre-testing of the questionnaire was performed by college administrators associated with the teacher education programs at the University of Massachusetts. Five copies of the pre-test draft were reproduced and personally delivered and explained to these educators. Each administrator was asked to complete the questionnaire and write comments pertaining to any area of the questionnaire that they questioned. This process was continued with four more different groups of educators from the University of Massachusetts and Springfield, Massachusetts' School System.

---

[45]Ibid., p. 7.

[46]Ibid.

From this reassessment of the questionnaire, it was found that the directions, the rating mechanism and the introduction, although, revised previously, were altogether too complex to be understood by a variety of educators expected to participate in a study of this nature. Therefore, all the areas criticized had to be revised again so each respondent for the study would be able to understand; (1) how to follow directions so they would be able to take the test, (2) be able to understand the rationalization for the need for the study so all concerned would look upon this study as important, and (3) to understand the different definitions given to the specific teaching skills.

After concluding this draft which now contained all of the corrections suggested by individuals involved in two different types of pre-testing, positive consideration was given to reproducing this draft. A meeting was called with testing experts, for the purpose of reviewing this tool as being valid or invalid. Comments from respondents, pertaining to the overall improvement of the questionnaire was carefully reviewed before finally deciding to reproduce enough copies of the questionnaire to service over one hundred respondents.

Selecting of Respondents

With construction of the questionnaire concluded, steps were taken in selecting respondents. First,

individuals on the college level were selected because of their involvement in the training of prospective teachers. These individuals were acting in the capacity of administrators, supervisors, and teachers at the University of Massachusetts and the University of Hartford. Second, the selection of educators from the public schools of Hartford, Connecticut; Waterbury, Connecticut; and Springfield, Massachusetts were public elementary school principals and teachers. This group of educators were selected because of their educational experiences.

The last group of individuals involved in this study were intern teachers. This group of individuals were randomly selected from the University of Massachusetts and the University of Hartford. Lunney explains the selection process in the following way: "The step following the construction of the questionnaire is the selection of the respondents. Actually, the possible respondents should be kept in mind when the questionnaire is developed."[47] Considerable thought was not only given to the number of samples and selection of respondents, but a decision was made on geographical location and a coding system for this study.

This study did not research a whole geographical population, but it did perform a random sampling on part of

---

[47] Ibid.

the population from the Western section of Massachusetts and the Central section of Connecticut. Therefore, the distribution of questionnaires was either hand carried to the different educators already mentioned or sent out in the mail. A variety of delivery systems is not unusual. Lunney states, "The investigator should use any method which will put the questionnaire into respondents' hands and insure a reasonable percentage of returns."[48]

A coding system was established so each group and individuals in these groups could be recognized. Further recognition was given to this coding system when letters of follow-up had to be sent to respondents who failed after a period of time to complete the questionnaire and send this instrument back to the researcher.

> After about two weeks, depending on the geographic scope of the survey, returns will start coming in. Even though responses are anonymous the questionnaire should be coded in some way to ascertain who has responded.[49]

States Gerald H. Lunney as he spells out the process for coding questionnaires. He further states what should be done to initiate steps necessary to assure that individuals return the questionnaires:

> The first follow-up can be a postcard reminding the people about the questionnaire and asking them to return it. After a suitable time, a second follow-up should be sent. This should contain another copy of the questionnaire with a cover letter stating that perhaps

---

[48] Ibid.

[49] Ibid., p. 8.

the individual did not receive the first form, and that a second one was being sent with a re-explanation of the purpose of the study.[50]

While helpful with keeping track of follow-up letters, postcards and returning questionnaires the coding system was used on questionnaires that were hand delivered and also served as a means of collecting data for the computer. Further information concerning the computer can be seen in Chapter IV.

During this study the majority of questionnaires were returned in a three week period. These questionnaires that were delivered by hand were given back immediately. The follow-up letters and one postcard had to be sent to respondents who failed to return the questionnaire after three weeks but, all respondents who received a follow-up letter or postcard, eventually acknowledged the study by returning the questionnaire in not more than four weeks.

Summary

This phase of the study set out to accomplish two major objectives; one being that of identifying all forty Specific Teaching Skills and two, was to use some type of instrument that would provide valid data on what teaching skills are essential for prospective teachers to learn before assuming professional responsibilities. Consequently,

---

[50]Ibid.

all forty Specific Teaching Skills were presented and a
questionnaire was decided upon for use in this study,
basically because it had more advantages to render data
that would prioritize these Specific Teaching Skills under
study.

CHAPTER IV

RESULTS OF THE QUESTIONNAIRE

This study was conducted in response to charges by
educational writers that a different type of preparation
was needed to improve the competency of future teachers.
For purposes of this investigation, specific teaching skills
dealt with herein were defined by the Dictionary of Education
as, "different instructional techniques that are used in
practicing the art of teaching and the ability to promote
learning, developed through appropriate preparation and
experience that is facilitated by natural aptitude."[51]

Limitations already outlined in Chapter I mentioned
some of the difficulties faced during the data gathering
for this empirical investigation. One of these limitations
that caused extreme problems occurred when the questionnaire
had to be delivered to designated geographical locations
under study. When the finished tool was reproduced a
vacation was in session for public school educators. This
same type of vacation followed with college educators one
week later. Between holidays, sicknesses and business trips

---

[51]Good, Dictionary of Education, p. 504.

a period of one month was exhausted. Therefore, follow-up letters had to be mailed and in many cases had to be handed out to respondents. The strategy utilized was founded upon the premise that if a list of specific teaching skills could be identified and prioritized by different types of educators then this information could help in the development of a curriculum for teacher education programs. The knowledge of the most important skills that should be taught to future teachers would add to the improvement of teacher preparation. Therefore, specific teaching skills were identified from three operational teacher education programs, namely the University of Massachusetts, Michigan State University and the University of Georgia. These specific teaching skills were not identified but were also presented in questionnaire form for the purpose of rating these skills in order of importance in relation to their being learned by teachers while in teacher education programs. The concepts presented by these three teacher education programs are similar only because each program continued to undergo considerable modification over the last few years. Each program is somewhat different, in the overall structure of their curriculums. The implications of this concept now integral to these programs have been accepted as a major element in program improvement, leading in turn to better opportunities for elementary school teachers in training.

These educators were identified by the following

criteria: (1) administrators, according to physical age, (2) teachers, according to physical age, (3) interns according to what stage of teacher preparation they were involved in. From these lists, respondents were randomly selected. Twelve names of administrators were submitted by the superintendent of schools in each of the public schools that were involved in the study. From these lists, nine individuals were randomly selected and asked to participate in the study. Teachers in Hartford, Connecticut; Waterbury, Connecticut; and Springfield, Massachusetts were selected through the same process as administrators. A total of twenty-one elementary teachers names were submitted by three principals in each city. These principals that were involved in this process were the administrators who had just completed the questionnaire. Nine elementary school teachers from the same public school system were asked to participate in this study and all nine agreed to complete the questionnaire. At the University of Massachusetts nine administrators and nine teachers were recommended by administrators who were involved in taking the pre-testing of the questionnaire. Permission was granted by Dr. William Greene to select intern teachers from his class in "Curriculum Development" basically, each of these future educators had just completed their internship. Twelve students from this course were asked to take the question-naire and out of this number ten students agreed. The

University of Hartford selection process was similar to that carried out at the University of Massachusetts. There, twenty-seven educators agreed to participate and were given a questionnaire to complete.

Of the total sample there were thirty-six administrators (36%), forty teachers (44.4%), and fourteen intern teachers (15.6%) involved in the study (see Table 12).

TABLE 12

STATUS VARIABLE

Value Label	Value	Absolute Frequency	Relative Frequency (Percent)	Cumulative Adj. Freq. (Percent)
Administrators	1.00	36	40.0	40.0
Teachers	2.00	40	44.4	84.4
Interns	3.00	14	15.6	100.0
	Total	90	100.0	100.0

Source: Computer Program (SPSS Overlay), Ed.

Of the college sample, twenty-three respondents were from the University of Massachusetts and eighteen were from the University of Hartford. This number included teachers, administrators, and intern teachers from both college locations. In the public school systems of Springfield, Massachusetts and Hartford, Connecticut thirty-four administrators and teachers completed the questionnaire, seventeen

each from Springfield and Hartford. From the Waterbury
school system fifteen teachers and administrators partici-
pated in the study. In all, out of the 108 questionnaires
distributed to practicing educators, 90 were returned (see
Table 13).

TABLE 13

LOCATION VARIABLE

Value Label	Value	Absolute Frequency	Relative Frequency (Percent)	Cumulative Adj. Freq. (Percent)
U of Mass.	1.00	23	25.6	25.6
Springfield	2.00	17	18.9	44.4
Hartford	3.00	17	18.9	63.3
U of Hartford	4.00	18	20.0	83.3
Waterbury	5.00	15	16.7	100.0
	Total	90	100.0	100.0

Source: Computer Program (SPSS Overlay), Ed.

A total of forty-five variables made up the complete
study. The first five variables included information on
age, location, sex, locale, and occupational types of data.
These first five variables were included in the study
because they contribute a better understanding of the
responses during interpretation of the completed data.
The remaining forty variables included all of the specific

teaching skills that were utilized in the study.

There were fifty-two males involved in the study and thirty-eight females. The relative frequency percent for males who took the questionnaire was fifty-seven point eight (57.8%) and the relative frequency percent for females was forty-two point two percent (42.2%). (See Table 14.)

TABLE 14

SEX VARIABLE

Value Label	Value	Absolute Frequency	Relative Frequency (Percent)	Cumulative Adj. Freq. (Percent)
Male	1.00	52	57.8	57.8
Female	2.00	38	42.2	100.00
	Total	90	100.0	100.0

Source: Computer Program (SPSS Overlay), Ed.

In describing the locale variable it was necessary to study the effects of the questionnaire when used in two differently defined communities with a particular location. The terms used in explaining these communities were called "Urban and Suburban." Forty-nine educators (54.4%) came from an urban community; and forty educators (44.4% came from a suburban community (see Table 15).

Each educator involved in the study was classified according to age in order to fulfill one of the purposes of

TABLE 15

URBAN-SUBURBAN VARIABLE

Value Label	Value	Absolute Frequency	Relative Frequency (Percent)	Cumulative Adj. Freq. (Percent)
Urban	1.00	49	54.4	54.4
Suburban	2.00	40	44.4	98.9
	3.00	1	1.1	100.0
	Total	90	100.0	100.0

Source: Computer Program (SPSS Overlay), Ed.

the study which was to compare the responses of educators nearing retirement with those new in the field as well as with those in the middle age group. Further, comparisons were made on what group agreed or disagreed on the listing of teaching skills. Other comparisons were made with ages of educators that responded to the questionnaire and that data was used in the form of comparisons. The youngest responding individuals fell in the age category of under twenty-one and the oldest educators were over fifty-one. The middle group consisted of three age categories which were twenty-one to thirty; thirty-one to forty and the final age group was between forty-one and fifty. Five educators under twenty-one completed the questionnaire. This group had the lowest relative frequency percentage of 5.6%.

Twenty-six educators fell in the age range of twenty-one to thirty. This group had a relative frequency percentage of 28.9%. In the thirty-one to forty age range there were thirty-four educators who completed the question- naire. This group had the highest relative frequency of 37.8%. The fourth age range of forty-one to fifty, tested sixteen educators who had a relative frequency percentage of 17.8%. The final age range of fifty-one or over had the next lowest number of nine educators involved in this study. The relative frequency percentage of 10% (see Table 16).

TABLE 16

AGE VARIABLE

Value	Label	Absolute Frequency	Relative Frequency (Percent)	Cumulative Adj. Freq. (Percent)
Under 21	1.00	5	5.6	5.6
21 to 30	2.00	26	28.9	34.4
31 to 40	3.00	34	37.8	72.2
41 to 50	4.00	16	17.8	90.0
51 and over	5.00	9	10.0	100.0
	Total	90	100.0	100.0

Source: Computer Program (SPSS Overlay), Ed.

The first five variables of location; age; sex; locale; and occupation were used throughout the study to

compare them with other data on specific teaching skills.
Statistical data on the first five variables were assembled
in chart form and are presented in the form of crosstabula-
tion (see Appendix D).

Instructional Skills

The data presented in this section of the study
consists of scores of separate Instructional skills. The
first Instructional skill computed was Verbal Response
which is defined as: "A skill in which a teacher responds
to a statement in a number of different ways in order to
give the statement a number of different meanings."[52] This
teaching skill received a reasonable rating that was of
high priority from the educators who completed the test.
The means for Verbal Response was 1.455 and the standard
deviation was 0.677. (Table 17 reviews the results.)

Non-Verbal Response, the second teaching skill
responded to in the questionnaire by respondents is defined
as: "A skill in which non-verbal behaviors are utilized to
communicate certain feelings and emotions."[53] This skill
received a mean of 1.511 and a standard deviation of 0.643.
These scores for this skill indicated a high priority

---

[52]Dwight W. Allen, et al. [Or James M. Cooper, and
others], "Technical Skills of Teaching" (To be published by
the General Learning Co., 1968), p. 2.

[53]Ibid.

TABLE 17

VERBAL RESPONSE SKILL

Variable Var. 001

Mean	1.455	STD Error	0.072	STD Dev	0.677
Variance	0.458	Kurtosis	0.093	Skewness	1.174
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

rating. Table 18 represents a complete chart of the results for this skill.

The majority of the educators rated the combination skill Verbal and Non-Verbal Response as a high priority skill also. This skill was defines as: "A skill that combines non-verbal responses with appropriate verbal statements."[54] The mean score for Non-Verbal Response was 1.282 while the standard deviation was 0.478. (The complete results are shown in Table 19 of the data for this skill.)

Fluency in Asking Questions was the fourth instructional skill that was rated. It was defined as: "A skill in the proficiency of asking clear, comprehensive

[54]Ibid.

TABLE 18

NON-VERBAL RESPONSES SKILL

Variable Var. 002

Mean	1.511	STD Error	0.069	STD Dev	0.643
Variance	0.414	Kurtosis	0.312	Skewness	0.870
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 19

VERBAL AND NON-VERBAL RESPONSE SKILL

Variable Var. 003

Mean	1.282	STD Error	0.052	STD Dev	0.478
Variance	0.229	Kurtosis	0.435	Skewness	1.291
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	85				
Missing Observations	5				

Source: Computer Program (SPSS Overlay), Ed.

questions."[55] In the rating of this skill the mean was
1.227 and the standard deviation was 0.473. This skill
received one of the highest priority ratings statistically
when compared to any of the other teaching skills. Over
three-fourths of the individuals who took the questionnaire
gave this skill a high rating. (See Table 20 for the
complete results.)

TABLE 20

FLUENCY IN ASKING QUESTIONS SKILL

Variable Var. 004

Mean	1.227	STD Error	0.050	STD Dev	0.473
Variance	0.224	Kurtosis	2.692	Skewness	1.935
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

The fifth specific teaching skill in the instruc-
tional category was Probing Questions which was defined as:
"A skill in asking questions that require students to go
beyond superficial first answers."[56] The mean was 1.273

and the standard deviation was 0.497 for this skill which indicated this skill received a high priority rating (see Table 21).

TABLE 21

PROBING QUESTIONS SKILLS

Variable Var. 005

Mean	1.273	STD Error	0.053	STD Dev	0.497
Variance	0.247	Kurtosis	1.543	Skewness	1.573
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

High Order Questions skills was defined as: "A skill which calls on higher levels of thinking and cannot be answered from memory or recall,"[57] had a mean of 1.412 and a standard deviation of 0.563. This skill reflects a high priority rating even though the score is higher than Fluency in Asking Questions and Probing Questions. At least half of the educators who took this test gave this skill a high priority rating (see Table 22).

_____

[57]Ibid.

TABLE 22

HIGH ORDER QUESTIONS SKILLS

Variable Var. 006

Mean	1.412	STD Error	0.061	STD Dev	0.563
Variance	0.317	Kurtosis	0.104	Skewness	0.956
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	85				
Missing Observations	5				

Source: Computer Program (SPSS Overlay), Ed.

The seventh specific skill rated was Divergent Questions. This skill received a mean of 1.529 which also reflects a high priority skill, and a standard deviation of 0.665. This skill was defined as: "A skill that involves combining probing and high order questions."[58] Even though this skill's scores were higher than all of the skills already rated, the data showed that over half of the educators involved in this study rated this a necessary skill during undergraduate training for future teachers (see Table 23).

Reinforcement was the eighth skill rated. It was

------

[58]Ibid.

TABLE 23

DIVERGENT QUESTIONS SKILL

Variable Var. 007

Mean	1.529	STD Error	0.072	STD Dev	0.665
Variance	0.443	Kurtosis	0.380	Skewness	0.868
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	85				
Missing Observations	5				

Source: Computer Program (SPSS Overlay), Ed.

defined as: "A skill that rewards appropriate behavior."[59]
The mean 1.607 was much higher than any of the skills
previously rated, but still was considered a high priority
by the scores rendered by educators involved in the study.
The standard deviation for the Reinforcement skill was
0.650 (see Table 24).

The next skill, Attending Behavior was not as high
in score as Reinforcement. Its mean of 1.602 suggests that
it too was considered high priority by those educators who
rated it. The standard deviation for this skill was 0.617.
Attending Behavior was defined as: "A skill involving
comprehending certain non-verbal reactions made by students

[59]Ibid., p. 5.

TABLE 24

REINFORCEMENT SKILL

Variable Var. 008

Mean	1.607	STD Error	0.069	STD Dev	0.650
Variance	0.423	Kurtosis	0.633	Skewness	0.596
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	89				
Missing Observations	1				

Source: Computer Program (SPSS Overlay), Ed.

in regard to attention"[60] (see Table 25).

The mean for Silence and Non-Verbal Cues was 1.716 and the standard deviation was 0.710. This skill is defined as: "A skill that uses action as gesturing eliciting a look, etc.."[61] These scores indicate that the majority of all educators who rated these skills gave this skill a high priority rating (see Table 26).

The eleventh skill that was rated was called Cueing. This skill was defined as: "A skill used to give the teacher more control over the success experience a student

---

[60] Ibid., p. 6.

[61] Ibid.

TABLE 25

ATTENDING BEHAVIOR SKILL

Variable Var. 009

Mean	1.602	STD Error	0.066	STD Dev	0.617
Variance	0.380	Kurtosis	0.642	Skewness	0.432
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 26

SILENCE AND NON-VERBAL CUES SKILL

Variable Var. 010

Mean	1.307	STD Error	0.052	STD Dev	0.488
Variance	0.238	Kurtosis	0.018	Skewness	1.133
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

has in answering questions."[62] This skill had a mean of 1.535 while the standard deviation was 0.645. Cueing was one more instructional type of skill that was given a high priority rating for the training of prospective teachers. In order for this or any other skill to be less than high priority in rating it must be over 2.000 (see Table 27).

TABLE 27

CUEING SKILL

Variable Var. 011

Mean	1.535	STD Error	0.070	STD Dev	0.645
Variance	0.416	Kurtosis	0.419	Skewness	0.795
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

The next specific skill rated called Set Induction, was defined as: "A skill that refers to the establishment of cognitive rapport between pupils and teachers to obtain immediate involvement in learning objectives."[63] This skill

[62]Ibid.

[63]Ibid.

received a high priority rating by the respondents who took the questionnaire. It had a mean of 1.307 and a standard deviation of 0.488 (see Table 28).

TABLE 28

SET INDUCTION SKILL

Variable Var. 012					
Mean	1.307	STD Error	0.052	STD Dev	0.488
Variance	0.238	Kurtosis	0.018	Skewness	1.133
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

The thirteenth specific teaching skill was called Stimulus Variation. The definition of this skill is: "A skill that develops attention-producing behavior."[64] This skill had a mean of 1.402 and a standard deviation of 0.600 which reflected a high priority rating, as did all of the other twelve Instructional skills (see Table 29).

Closure, the next specific teaching skill also was rated high priority. This skill had a mean of 1.345 and a

---

[64]Ibid., p. 8.

TABLE 29

STIMULUS VARIATION SKILL

Variable Var. 013					
Mean	1.402	STD Error	0.064	STD Dev	0.600
Variance	0.360	Kurtosis	0.391	Skewness	1.195
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

standard deviation of 0.546. The definition of Closure is:
"A skill that insures that the major purposes or portions
of a lesson have been learned by students"[65] (see Table 30).

The Use of Examples skill had a 1.348 mean and a
standard deviation of 0.566. This skill is defined as: "A
skill used to clarify, verify or substantiate concepts,"[66]
received a high priority rating as indicated by the scores.
(Table 31 presents further data on the scores for this
skill.)

Summarizing was defined as: "A skill of condensing

---

[65]Ibid.

[66]Ibid., p. 9.

TABLE 30

CLOSURE SKILL

Variable Var. 014

Mean	1.345	STD Error	0.059	STD Dev	0.546
Variance	0.298	Kurtosis	0.673	Skewness	1.284
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 31

USE OF EXAMPLES SKILL

Variable Var. 015

Mean	1.348	STD Error	0.060	STD Dev	0.566
Variance	0.320	Kurtosis	0.897	Skewness	1.371
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	89				
Missing Observations	1				

Source: Computer Program (SPSS Overlay), Ed.

material read either orally or in writing,"[67] was the

sixteenth teaching skill rated. It had a 1.636 mean and

a 0.647 standard deviation (see Table 32). This instruc-

tional skill is still rated as a high priority by the

educators who took the questionnaire.

TABLE 32

SUMMARIZING SKILL

Variable Var. 016

Mean	1.636	STD Error	0.069	STD Dev	0.647
Variance	0.418	Kurtosis	0.676	Skewness	0.509
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

The seventeenth skill was Motivational. This skill's

scores were consistent with the scores already recorded.

The majority of the educators gave this skill a high priority

rating. The mean of 1.360 was very much like the scores from

the specific skills such as Use of Examples, Closure, and

Set Induction. The standard deviation was 0.607. This skill

[67]Good, Dictionary of Education, p. 537.

was defined as: "A skill that utilizes the application of incentives causing students to perform in a certain way"[68] (see Table 33).

TABLE 33

MOTIVATIONAL SKILL

Variable Var. 017

Mean	1.360	STD Error	0.068	STD Dev	0.631
Variance	0.398	Kurtosis	1.094	Skewness	1.527
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

The scores from the specific teaching skill of Introduction, which was defined as: "A skill in how to begin a unit of work after formulating objectives for instruction,"[69] maintained a high priority rating, with a mean of 1.483 and a standard deviation of 0.607 (see Table 34). The scores from this skill had a similar rating as: Stimulus Variation, High Order Questions, and Verbal Response.

---

[68] Ibid., p. 354.

[69] Ibid., p. 299.

TABLE 34

INTRODUCTION SKILL

Variable Var. 018

Mean	1.483	STD Error	0.065	STD Dev	0.607
Variance	0.369	Kurtosis	0.277	Skewness	0.849
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

The nineteenth specific teaching skill received a
1.667 mean and a standard deviation of 0.584 (see Table 35).
This skill Lesson Review is defined as: "A skill in which
reexamination of a large unit of work occurs."[70]   The scores
for Lesson Review are similar to Summarizing, Reinforcement,
and Attending Behavior and each of these skills were rated
as high priority.

Individualized Study skills and Panel Discussion
skills varied differently from the scores they received,
although both skills received a high priority rating from
the respondents who took the questionnaire.   Individualized
Study defined as: "A skill that provides ways of developing

---

[70]Ibid., p. 317.

TABLE 35

LESSON REVIEW SKILL

Variable Var. 019						

Mean	1.667	STD Error	0.063	STD Dev	0.584
Variance	0.341	Kurtosis	0.663	Skewness	0.209
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

activities that are differentiated to meet the needs of students,"[71] had a mean of 1.279 which is one of the highest ratings given to any of the other previously recorded instructional skills. Panel Discussion skills, which was defined as: "A skill on how to conduct a presentation in which a group or individual discuss a topic with or without active participation by an audience,"[72] had on the other hand received a mean of 1.849 which falls in the classification of being a high priority skill. Panel Discussion skill came very close to receiving an average priority rating. The standard deviation score for the Individualized

_____

[71] Ibid., p. 284.

[72] Ibid., p. 383.

Study skill was a 0.501, while the standard deviation score for Panel Discussion skill was a 0.623 (see Tables 36 and 37).

TABLE 36

INDIVIDUALIZED STUDY SKILL

Variable Var. 020					
Mean	1.279	STD Error	0.054	STD Dev	0.501
Variance	0.251	Kurtosis	1.422	Skewness	1.537
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

The twenty-second skill, which was called Lecture, was the first specific teaching skill in the instructional area to receive an average priority rating. This skill was defined as: "A skill in the organized presentation of information."[73] The mean was 2.057 and the standard deviation was 0.826. (See Table 38 for further data.) Among the first twenty-five skills recorded, Lecture received the lowest rating.

---

[73]Allen, et al., "Technical Skills of Teaching," p. 9.

TABLE 37

PANEL DISCUSSION SKILL

Variable Var. 021

Mean	1.849	STD Error	0.067	STD Dev	0.623
Variance	0.389	Kurtosis	0.494	Skewness	0.111
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 38

LECTURE SKILL

Variable Var. 022

Mean	2.057	STD error	0.089	STD Dev	0.826
Variance	0.683	Kurtosis	1.173	Skewness	1.231
Range	3.000	Minimum	0.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

The last three Instructional skills were Planned Repetition, Completeness of Communication and Using Oral Reports. Each of these three skills received a high priority rating, even though Planned Repetition and Using Oral Reports skills came very close to receiving an average priority rating. Planned Repetition was defined as: "A skill that uses redundance in focusing and highlighting important points and describing them from different points of view,"[74] received a mean of 1.849 and a standard deviation of 0.712 (see Table 39).

TABLE 39

PLANNED REPETITION SKILL

Variable Var. 023

Mean	1.849	STD Error	0.077	STD Dev	0.712
Variance	0.506	Kurtosis	0.995	Skewness	0.224
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

The Completeness of Communication skill was defined

---

[74] Ibid.

as: "A skill for the purpose of developing clear, thorough communication with students."[75] This skill had a mean of 1.230, plus a standard deviation of 0.048 (see Table 40).

TABLE 40

COMPLETENESS OF COMMUNICATION SKILL

Variable Var. 024

Mean	1.230	STD Error	0.048	STD Dev	0.450
Variance	0.202	Kurtosis	1.694	Skewness	1.663
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

Oral Reports skill defined as: "A skill in how to facilitate a planned presentation by a individual or groups,"[76] was the last of the first twenty-five Instructional skills and received a mean of 1.852, plus a standard deviation of 0.751 (see Table 41). Planned Repetition and Oral Report skills, both received similar scores, but still maintained a high priority rating.

----

[75]Ibid., p. 10.

[76]Ibid., p. 9.

TABLE 41

USING ORAL REPORT SKILL

Variable Var. 025					
Mean	1.852	STD Error	0.080	STD Dev	0.751
Variance	0.564	Kurtosis	0.057	Skewness	0.408
Range	3.000	Minimum	0.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (Spss Overlay), Ed.

Throughout the recorded twenty-five instructional skills no average scores went lower in rating than an average priority, although the Lecture skill was rated as a secondary priority skill.

Human Relations Data

Seven Relations skills followed the twenty-five Instructional skills. The first of these skills was called Self-Concept. This skill was defined as: "A skill which utilizes not only the traditional self-picture, but also the picture one has of how others see him."[77] The mean for this specific skill was 1.306 with a standard deviation of

[77]Good, Dictionary of Education, p. 493.

0.512. This skill recorded a high priority rating and received the next to highest rating of all seven Human Relations skills (see Table 42).

TABLE 42

SELF CONCEPT SKILL

Variable Var. 026					
Mean	1.306	STD Error	0.056	STD Dev	0.512
Variance	0.262	Kurtosis	0.867	Skewness	1.366
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	85				
Missing Observations	5				

Source: Computer Program (SPSS Overlay), Ed.

The second Human Relation Skill was Decision Making which was defined as: "A skill in which alternative definitions, alternative contingencies are utilized in classroom situations."[78] This specific teaching skill had the highest mean of 1.273 and a standard deviation of 0.519. This individual skill was similar in rating to the specific teaching skill in the Instructional area that was rated as having the highest priority. Just about every respondent

---

[78]Ibid., p. 158.

who took the questionnaire recorded the Decision Making
skill as highly necessary for prospective teachers to
acquire (see Table 43).

TABLE 43

DECISION MAKING SKILL

Variable Var. 027					
Mean	1.273	STD Error	0.055	STD Dev	0.519
Variance	0.270	Kurtosis	2.136	Skewness	1.736
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

Small Group, defined as: "A skill that attempts to
focus on the process of interaction operations for a small
number of persons,"[79] was the third specific skill under the
general area of Human Relations. The mean for this skill
was 1.529 with a standard deviation of 0.626. The scores
for this skill would indicate it receiving a high priority
rating (see Table 44).

The Large Group skill defined as: "A skill that

_____

[79]Ibid., p. 464.

TABLE 44

SMALL GROUP SKILL

Variable Var. 028					
Mean	1.529	STD Error	0.067	STD Dev	0.626
Variance	0.392	Kurtosis	0.433	Skewness	0.750
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	87				
Missing Observations	3				

Source: Computer Program (SPSS Overlay), Ed.

focuses attention on the processes of interacting within a relatively large group,"[80] achieved a mean of 1.618, plus a standard deviation of 0.649. This skill also received a high priority rating as did the Decision Making skill and the Small Group skill, but received a lower score in comparison to the rest of the Human Relations skills (see Table 45).

Tutorial skill, defined as: "'one on one' a skill in the dynamics of working with a single student,"[81] had a mean of 1.545 and a standard deviation of 0.659. The scores indicate that this specific teaching skill was

---

[80] Webster's New International Dictionary.

[81] Ibid.

TABLE 45

LARGE GROUP SKILL

Variable Var. 029					
Mean	1.618	STD Error	0.069	STD Dev	0.649
Variance	0.421	Kurtosis	0.652	Skewness	0.561
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	89				
Missing Observations	1				

Source: Computer Program (SPSS Overlay), Ed.

considered high priority and is very similar to the score received by the Small Group skill (see Table 46).

The last two variables under the Human Relations skills were called Problem Solving Skill and Classroom Management. Each of these skills received a high priority rating. For example, the Problem Solving Skill defined as: "A skill designed for selecting the correct one of two or more possible responses,"[82] had a mean of 1.511 and a standard deviation of 0.625. This skill was similar to the specific teaching skills of Tutorial and Small Group skill in rating (see Table 47).

The last specific teaching skill, Classroom

---

[82]Good, Dictionary of Education, p. 415.

TABLE 46

TUTORIAL SKILL

Variable Var. 030

Mean	1.545	STD Error	0.070	STD Dev	0.659
Variance	0.435	Kurtosis	0.451	Skewness	0.800
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 47

PROBLEM SOLVING SKILL

Variable Var. 031

Mean	1.511	STD Error	0.067	STD Dev	0.625
Variance	0.391	Kurtosis	0.336	Skewness	0.525
Range	3.000	Minimum	0.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

Management, which was defined as: "A skill with special reference to such problems as discipline, democratic techniques, care of supplies, reference materials, physical features of the classroom, general house keeping and social relationship of pupils,"[83] received a mean of 1.393 and a standard deviation of 0.615. This Classroom Management skill scores compared favorably to those of many of the Instructional skills (see Table 48).

TABLE 48

CLASSROOM MANAGEMENT SKILL

Variable Var. 032					
Mean	1.393	STD Error	0.065	STD Dev	0.615
Variance	0.378	Kurtosis	0.589	Skewness	1.299
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	89				
Missing Observations	1				

Source: Computer Program (SPSS Overlay), Ed.

In conclusion, all the Human Relation skills received a high priority rating and all of the scores ranked in this general area went well beyond average priority.

----

[83]Ibid., p. 99.

Data on the Planning Skill

The third general area tested was Planning Skills. In this area four specific teaching skills were rated separately. The first of these skills was called Lesson Planning which was defined as: "A skill in the preparation of plans for a daily schedule in a classroom."[84] This specific teaching skill recorded a 1.455 mean and a standard deviation of 0.642. These scores were rated high priority and this specific skill received the next to the best rating in this group (see Table 49).

TABLE 49

LESSON PLANNING SKILL

Variable Var. 033					
Mean	1.455	STD Error	0.068	STD Dev	0.642
Variance	0.412	Kurtosis	0.017	Skewness	0.827
Range	3.000	Minimum	0.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

Unit Planning, Behavior Objectives and Record

---

[84]Ibid., p. 317.

Keeping were the other specific skills that were included in the general area of Planning skills. Unit Making, defined as: "A skill in the preparation of planned instruction that will include discovery, verification, decision making and criticism in subject content,"[85] had a mean of 1.393 which was the highest of all the recorded Planning skill's scores. Also the standard deviation was 0.536 (see Table 50).

TABLE 50

UNIT PLANNING SKILL

Variable Var. 034							
Mean	1.393	STD Error	0.057	STD Dev	0.536
Variance	0.287	Kurtosis	0.363	Skewness	0.879
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	89				
Missing Observations	1				

Source: Computer Program (SPSS Overlay), Ed.

Behavior Objectives defined as: "A skill in how to communicate clearly what behavior is to be achieved by students,"[86] had a mean of 1.547 and a standard deviation

---

[85]Ibid., p. 588.

[86]Ibid., p. 57.

of 0.663. This skill had a similar score as did the specific teaching skills under the Instructional area, where over half of the respondents recorded a high priority for many of those skills (see Table 51).

TABLE 51

BEHAVIOR OBJECTIVES SKILL

Variable Var. 035

Mean	1.547	STD Error	0.071	STD Dev	0.663
Variance	0.439	Kurtosis	0.455	Skewness	0.805
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	86				
Missing Observations	4				

Source: Computer Program (SPSS Overlay), Ed.

Record Keeping defined as: "A skill in the procedure of recording information on students,"[87] was the last of the Planning Skills. This skill received a very low rating, but still averaged out in scores as a high priority. The mean was 1.841 and the standard deviation was 0.659 (see Table 52).

[87]Ibid., p. 451.

TABLE 52

RECORD KEEPING SKILL

Variable Var. 036

Mean	1.841	STD Error	0.070	STD Dev	0.659
Variance	0.434	Kurtosis	0.718	Skewness	0.177
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

Evaluation Skills Data

The General Area of Evaluation includes four specific teaching skills: Diagnostic, Test Making, Standardized Testing, and Testing Procedures skills. Out of these four skills the data for Standardized Testing showed that it received the lowest score in the complete priority rating. Standardized Testing is defined as: "A skill on the selection of uniformed methods in administering scoring and interpreting a relatively objective type test."[88] The mean for this skill was 2.133 and a standard deviation of 0.677, which was a secondary average priority rating (see Table 53).

[88] Ibid., p. 521

TABLE 53

STANDARDIZED TESTING SKILL

Variable Var. 039					
Mean	2.133	STD Error	0.074	STD Dev	0.677
Variance	0.458	Kurtosis	0.809	Skewness	0.163
Range	2.000	Minimum	1.000	Maximum	2.000
Valid Observations	83				
Missing Observations	7				

Source: Computer Program (SPSS Overlay), Ed.

The highest score recorded in the General Area of Evaluation skills was the Diagnostic skill, which had a mean of 1.193, the highest rating given any skill throughout the questionnaire. The standard deviation for this skill was 0.425. Diagnostic skill was defined as: "A skill on how to develop ways in discovering special abilities, difficulties, interests, and problems, as well as analyzing information in records before attempting to guide a student"[89] (see Table 54).

The other two skills, Test Making and Test Procedures, received a high priority rating, but there were not any outstanding differences in their scores as compared to

[89]Ibid., p. 531.

TABLE 54

DIAGNOSTIC SKILL

Variable Var. 037

Mean	1.193	STD Error	0.045	STD Dev	0.425
Variance	0.181	Kurtosis	3.098	Skewness	1.996
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	88				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

the high priority scores already mentioned. Test Making was defined as: "A skill in the construction of different types of teacher-made evaluation instruments."[90] This skill had a mean of 1.500 and a standard deviation of 0.625 (see Table 55).

Testing Procedure which was defined as: "A skill used in the development and the specifically stipulated operations of an evaluation tool,"[91] had a mean of 1.774 and a standard deviation of 0.642 (see Table 56).

Only two skills in the complete study had an average priority rating while thirty-eight specific teaching skills

[90]Ibid., p. 558.

[91]Webster's New International Dictionary

TABLE 55

TEST MAKING SKILL

Variable Var. 038

Mean	1.500	STD Error	0.067	STD Dev	0.625
Variance	0.391	Kurtosis	0.298	Skewness	0.852
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	83				
Missing Observations	2				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 56

TESTING PROCEDURE SKILL

Variable Var. 040

Mean	1.774	STD Error	0.071	STD Dev	0.647
Variance	0.418	Kurtosis	0.690	Skewness	0.247
Range	2.000	Minimum	1.000	Maximum	3.000
Valid Observations	84				
Missing Observations	6				

Source: Computer Program (SPSS Overlay), Ed.

received a high priority rating. None of the presented teaching skills in this study reported a low priority rating.

Data on the Four General Skills

Instructional Skills

The data on the General Area of all twenty-five Instructional skills provided fruitful information on the overall group rating. An example of this is seen in the results of the mean which was 39.833 with a 10.032 standard deviation for the group of Instructional skills. Both of these scores indicate that out of all the twenty-five specific skills only one skill was rated as average. These Instructional skills were considered very important just for the mere fact that they were being used in the teacher education programs that are included in this study and they continued to maintain a high priority rating by the educators who responded to the questionnaire (see Table 57).

Human Relations Skills

The Human Relations skills were as equally impressive in the scores recorded as was the Instructional skills. These skills like all of the skills in this study are being used by the three teacher education programs to prepare future teachers. This group of skills had a 9.033 mean and a standard deviation score of 3.150 which would indicate they recorded the highest priority rating as a group (see

Table 58).

TABLE 57

VARIABLE INSTRUCTIONAL SKILLS

Mean	39.833	STD Error	1.057	STD Dev	10.032
Variance	100.635	Kurtosis	12.658	Skewness	2.559
Range	75.000	Minimum	25.000	Maximum	100.000
Valid Observations	90				
Missing Observations	0				

Source: Computer Program (SPSS Overlay), Ed.

TABLE 58

VARIABLE HUMAN RELATIONS SKILLS

Mean	9.033	STD Error	0.332	STD Dev	3.150
Variance	9.920	Kurtosis	4.706	Skewness	1.755
Range	18.000	Minimum	6.000	Maximum	24.000
Valid Observations	90				
Missing Observations	0				

Source: Computer Program (SPSS Overlay), Ed.

Planning Skills

The mean for the Planning skills was 6.478 and the standard deviation was 2.089. With there being only four

skills in this group the scores would indicate this group of skills received a high score (see Table 59).

TABLE 59

VARIABLE PLANNING SKILLS

Mean	6.478	STD Error	0.220	STD Dev	2.089
Variance	4.365	Kurtosis	3.812	Skewness	1.530
Range	13.000	Minimum	3.000	Maximum	16.000
Valid Observations	90				
Missing Observations	0				

Source: Computer Program (SPSS Overlay), Ed.

Evaluation Skills

The final group, Evaluation skills, had a lower rating than the Planning skills, due to having one skill out of four that received a rating that was ranked as average priority. This would suggest that as a group, the Evaluational skills was ranked fourth when compared with the Planning skills and the Instructional skills. Therefore, the Human Relations skills were ranked first; the Instructional skills were ranked second; the Planning skills were third; and the Evaluation skills last (see Table 60).

TABLE 60

VARIABLE EVALUATION SKILLS

Mean	7.011	STD Error	0.237	STD Dev	2.246
Variance	5.045	Kurtosis	2.294	Skewness	1.117
Range	12.000	Minimum	4.000	Maximum	16.000
Valid Observations	90				
Missing Observations	0				

Source: Computer Program (SPSS Overlay), Ed.

Specific Skill Listing

This fourth chapter presented different types of data. The first five variables scores for sex, status, location, age and locale were introduced and explained thereby showing a variation of scores conducive to understanding their relevancy. Each specific skill variable was also introduced and explained. This basically was accomplished for the purpose of finding out what specific skills should be utilized in a teacher education program more than others.

From the data that was presented, it is now possible to show these specific skills in order of priority, plus, to list the specific skills that prove to be secondary. Table 61 represents the completed list of needed skills that were developed from the data.

TABLE 61

SPECIFIC TEACHING SKILLS LISTED IN ORDER OF PRIORITY

Specific Teaching Skills	Mean	Standard Deviation
1. Diagnostic	1.193	0.425
2. Fluency in Asking Questions	1.227	0.473
3. Completeness of Communication	1.230	0.450
4. Probing Questions	1.273	0.497
5. Decision Making	1.273	0.519
6. Individualized Study	1.279	0.501
7. Verbal and Non-Verbal Response	1.282	0.473
8. Self Concept	1.306	0.512
9. Silence and Non-Verbal Cues	1.307	0.488
10. Set Induction	1.307	0.488
11. Closure	1.345	0.546
12. Use of Example	1.348	0.566
13. Motivational	1.360	0.631
14. Unit Making	1.393	0.536
15. Classroom Management	1.393	0.615
16. Stimulus Variation	1.402	0.600
17. High Order Questions	1.412	0.563
18. Lesson Planning	1.455	0.642
19. Verbal Response	1.455	0.677

Source: Refer to Tables 17-56, Chapter IV.

TABLE 61--Continued

Specific Teaching Skills	Mean	Standard Deviation
20. Introduction	1.483	0.607
21. Test Making	1.500	0.625
22. Problem Solving	1.511	0.625
23. Non-Verbal Response	1.511	0.643
24. Divergent Questions	1.529	0.665
25. Small Group	1.529	0.626
26. Cueing	1.535	0.645
27. Tutorial	1.545	0.659
28. Behavior Objectives	1.547	0.663
29. Attending Behavior	1.602	0.617
30. Reinforcement	1.607	0.650
31. Large Group	1.618	0.649
32. Summarizing	1.636	0.647
33. Lesson Review	1.667	0.584
34. Test Procedure	1.774	0.647
35. Record Keeping	1.841	0.659
36. Panel Discussion	1.849	0.623
37. Planned Repetition	1.849	0.712
38. Using Oral Reports	1.852	0.751

The specific skills receiving an average priority
rating in this study made up the secondary list of skills.
Table 62 represents the specific skills that received a
rating that would place it on the secondary list.

TABLE 62

SECONDARY LIST OF SPECIFIC SKILLS

Specific Teaching Skills	Mean	Standard Deviation
1. Lecture	2.057	0.826
2. Standardized Testing	2.133	0.677

Source: Refer to Tables 38 and 53, Chapter IV.

In the final analysis a list of thirty-eight specific
skills were shown to have received adequate ratings necessary
for them to be considered high priority and only two specific
skills were not selected, because of their scores, which
were average in rating.

Summary

The fourth chapter outlined the different types of
data. The first five variable scores were introduced to the
study showing a variation of scores conducive to under-
standing their relevancy. Each specific skill's scores
were also variables, and information concerning them was
introduced in this chapter. Chapter V makes reference to

the total investigations of individual scores made by the
educators involved in the study and refers to the assump-
tions made in Chapter I, and includes documentation of some
implications for changes in teacher education programs in
the future.

CHAPTER V

ANALYSIS OF DATA

Introduction

Even though important data has been presented in Chapter Iv, on the forty-five variables introduced and explained, it became apparent that though scores were provided, they did not indicate which respondent disagreed with the complete list of specific skills. Consequently, further investigation was carried out by comparing variables and discussing the reflection of these large and small differences. These findings proved to be important for analyzing correctly each educator's reasons for scoring the specific skills as they did.

Analysis of Attribute Variables

The first five variables in this study were called: Status; Sex; Location; Age; and Locale. All were ranked and rated in line with the responses given to each individual specific skill. The status variable produced information on how each group of educators recorded their responses for the specific skills. Administrators as a group rated five Instructional skills such as, Non-Verbal Response, Verbal and Non-Verbal Response, Set Induction, Individualized

Study, and Completeness of Communications with very high scores. The mean score for the highest recorded skill of Verbal and Non-Verbal Response was 1.1765 and a standard deviation of 0.3870. The lowest scores produced by administrators were for such skills as Lecture and Planned Repetition. The Lecture skill was rated the lower of these two skills with a means of 2.1176 which was only average priority in rating. The total group for the Instructional group as, Fluency in Asking Questions and Probing Questions which was a completely different response than that of administrators. In comparing scores that teachers produced for the Instructional area with administrators it was found that teachers and administrators did agree on Lecture as being only average priority. Lecture was also rated by teachers as least important in this Instructional area.

Intern teachers as a group agreed with administrators in recording a 1.000 mean for Verbal and Non-Verbal Responses. All of the intern teachers rated this skill as the highest specific skill in the Instructional area, while they recorded lowest scores for the skill Lecture thereby agreeing with teachers and administrators. Consequently, these educators did show surprising agreement in rating the lowest specific skill.

For the Human Relations skills there was very little agreement by administrators, teachers, and intern teachers on the selections for the rating of these specific

skills. For example, administrators rated Decision Making as the highest skill and Problem Solving as their least important specific skill.

Teachers rated Self-Concept as the highest needed specific skill and the lowest as Large Group. Teachers and administrators showed differences in both the lowest and highest rated skill, while intern teachers recorded a similar score as administrators for the highest rated skill when they produced favorable scores for Decision Making. Tutorial and Classroom Management were rated as the lowest skills by the group of intern teachers which was a completely different response than that of teachers and administrators. In rating the specific skills in the Planning group, administrators, teachers, and intern teachers were not fully in agreement. Administrators accorded the highest rating to Lesson Planning and the lowest rating to Record Keeping. In comparison teachers did agree with adminis-trators by recording the lowest rating for Record Keeping, but disagreed with the highest rated skill of Unit Making. Intern teachers also agreed with administrators and teachers in recording Record Keeping as the lowest rated skill. However, interns and teachers recorded Unit Planning as a complete group with Evaluation skills. These four specific skills received the lowest rating, even though all except one of these skills were considered high priority.

Administrators, teachers, and intern teachers agreed on the
Diagnostic skill for the highest rating in this group,
though Standardized Testing was a Questionable skill. The
Evaluation group was the only area in which all educators
involved in the study agreed by assigning it the lowest
rating.

Verbal Response received a high number of positive
responses from the age group of forty to fifty. Non-Verbal
Responses received more positive scores in favor of the use
of this skill from ages twenty-one to thirty and the
negative responses were so few that no specific age group
could be recognized for the next four specific skills of
Verbal and Non-Verbal Response. Fluency in Asking Questions,
Probing Questions and High Order Questions had very few
responses that were negative towards not having them used
in teacher education programs.

Respondents between the ages of twenty-one and thirty
gave Verbal and Non-Verbal Responses the highest rating out
of all the other age groups. Other Instructional skills
that received the highest ratings by this age group were
Recognizing Attending Behavior, Introduction, and Panel
Discussion. The majority of these individuals between the
ages of twenty-one and thirty were teachers, although a few
were administrators and intern teachers. It would seem that
this age group would have recorded higher scores only for

specific skills that were considered innovative, but Set
Induction and Panel Discussion skills are considered
traditional by many educators.

All of the intern teachers were twenty years old
and under. These respondents placed the highest rating on
Divergent Questions, Silence and Non-Verbal Cues and Lesson
Review. This group which just completed their internship
or were in the process of beginning this experience,
selected specific skills that were more in line with being
considered innovative.

Reinforcement, Stimulus Variation, and Completeness
of Communication were the specific skills under the
Instructional that received the highest rating by the age
group of thirty-one to forty. Each one of these skills is
considered very innovative and is being widely discussed at
the University of Hartford as a possible new addition in
the curriculum for the preparation of future teachers.

The group that represented the majority of adminis-
trators were between forty-one to fifty. This group favored
rating positive scores for the skills of Cueing, Set
Induction, Use of Examples, Motivational, and Planned
Repetition. It was surprising that so many administrators
would record favoring these Instructional skills and not
those that reflected some form of control mechanism.
Finally, there were educators between the ages of fifty and
over who recorded positive scores for the skills of Probing

Questions, High Order Questions and Closure. It is important to point out that these educators had been in the field of education for at least twenty-eight years.

Just as important as the positive aspects are the negative aspects of what age groups recorded the lowest scores for each individual skill. Already mentioned was one of the lowest scores delivered by the age group under twenty-one for the specific skill received for Non-Verbal Response and some of the skills that did not receive scores revealing any low recorded data. But, there were more skills that did not show low ratings by ages than those that did. For example, there were thirteen different instructional skills that did not record data showing an outstanding change, but starting with the sub-twenty-one year old group, some differences were recorded. Closure and Individualized study skills were two skills that received recorded ratings that were the lowest by this age group. This was a big surprise, because many colleges have included in their curriculums individualized programs. Another age group, the twenty-one to thirty, also showed differences in recording low scores to these instructional skills. This age group recorded the lowest scores for Silence and Non-Verbal Cues which is considered one of the newer skills. The scores of the age group thirty-one to forty have been mentioned earlier. The forty-one to fifty age group recorded no negative scores for these skills.

But, the fifty-one and over group recorded low scores for Divergent Questions, Reinforcement, Cueing, and Lesson Review.

The Lecture skill received only an average priority rating in the study and each status group agreed with the rating. Now, the age variable confirms the negative scores recorded for this skill. The ages of the educators did not make any difference when they recorded and rated this skill because the majority of these individuals of all ages rated the Lecture skill as average priority. This specific skill could have possibly recorded a rating score lower than what it received, but it did not come close to a low priority rating. Therefore complete agreement by all educators exists on the Lecture skill having only secondary value, even though this skill in many cases is used almost exclusively by teachers in elementary schools and colleges. Using Oral Reports, which was the last of the Instructional skills, received recorded scores reflecting mixed agreement among different age groups. Under twenty-one, forty-one to fifty and fifty and over groups agreed in rating this skill as deserving only an average priority rating, while the age groups of twenty-one to thirty and thirty-one to forty recorded scores that indicate the feeling of this skill being high priority. The overall means of 1.852 still was of high priority rating for the age variables.

For the Human Relations skills no remarkable

differences were noticeable. Consequently, by age grouping
the Human Relations skills received the highest rating of
all the general areas. In the Planning Skill area, there
was one disagreement for the specific skill of Lesson
Planning. Educators under twenty-one recorded this skill as
only average priority in rating, while all other ages showed
scores suggesting a high priority for this skill. The under
twenty-one group recorded priority ratings for Unit Making,
Behavioral Objectives and Record Keeping. Still, all other
ages disagreed and rated each of these four skills as high
priority.

     After reviewing the data for the general area of
Evaluation it was found that the Diagnostic Skill received
a very high rating from all of the age groups, The indica-
tion from this score suggests all these educators believed
this skill very necessary in a teacher education program.
The only difference in rating the Planning skills by age
was in the specific skill of Standardized Testing. The only
educators believing this skill to be high priority were
those between the ages of forty-one to fifty who were
administrators. All other age groups recorded this skill
as average priority in rating, but what is most interesting
about these administrators between the ages of forty-one
and fifty is that they were public school officials and
this is where the decision to use Standardized Tests is
made. It is hard to understand if the priority rating

given this skill by all other age groups indicates a dis-
pleasure with the skill being learned by future teachers or
a bad feeling about Standardized Testing itself. A complete
table is presented in Appendix E which contains data on ages
broken down by the responding educators who were involved
in the study.

The third variable examined was criterion by sex.
This examination was completed for the purpose of finding
out if sex made any differences in the scores recorded and
to show differences in the ratings by sex. There were
fifty-two males and thirty-eight females involved in this
study. In the Instructional area there were no outstanding
differences of agreement between the sexes, but the female
recorded higher priority ratings in the scores than the
males. This discrepancy was not consistent in the next
general area of Human Relations where males placed higher
ratings on these skills than females. Again, for the
Planning and Evaluating skill areas no outstanding
differences were recorded because of sex, but out of these
two general skill areas Standardized Testing did not
receive a high priority rating.

Appendix F presents a clear statistical picture of
the closeness in ratings by males and females in addition
to the scores in each general area of skills aligned by sex.
It was not necessary to render information on locale and
location separately, because the differences have already

been mentioned in the study. Data for the first five vari-
ables were compared in order to present concrete facts with
which to develop a select group of priority listed skills.

The final information computed in this study was a
comparison of each specific skill with the criterion vari-
ables broken down into sex, locale, location and status.
In understanding how each individual educator responded to
the questionnaire, the first five variables were analyzed
simultaneously. The purpose of investigating this type of
data was centered around this study as having provided data
only on the variables separately. Some comparisons have
been conducted, but not with the total population. There-
fore, an understanding of the priority ratings, plus possibly
reasons why different educators placed value on the specific
skills is needed.

In comparing educational administrators from the
University of Massachusetts with administrators from the
University of Hartford, it was found that emphasis on the
following Instructional skills: Verbal Response, Non-Verbal
Response, Verbal and Non-Verbal Responses, Fluency in Asking
Questions, Probing Questions, High Order Questions, were all
specific skills that received no difference in rating.
Eighteen of the twenty-five specific skills under the
Instructional area did not elicit responses leading to
significant differences; however, there were differences
recorded in the seven remaining skills. Some significant

data were determined from the scores rendered by these administrators. For example, Attending Behavior, Cueing, and Stimulus Variation, were rated as average priority skills by the University of Massachusetts contingent, while the administrators from the University of Hartford rated these specific skills as high priority. These data prove to be very interesting because the METEP Program which identified these forty skills is located at the School of Education at the University of Massachusetts. The University of Hartford on the other hand, has recently added these skills to their program. Other disagreements by these University administrators were present in the rating recorded for Introduction, Lesson Review, Planned Repetition and Using Oral Reports. Once again the administrators at the University of Massachusetts rated these specific skills as average priority, while the University of Hartford administrators recorded them as high priority. In comparing the public school administrators from Hartford, Waterbury and Springfield more information became apparent, such as Springfield administrators disagree with other public school administrators three times in rating the skills of Verbal Response, Introduction, and Lesson Review, but agreed with the remaining twenty-two skills. Hartford and Waterbury administrators recorded high priority ratings for each of the three mentioned skills. College administrators from the University of Massachusetts agreed with the rating

given by Springfield administrators for Introduction, and
Lesson Review, but did not agree with them in rating the
specific skill of Verbal Response. Therefore, all adminis-
trators except those in Springfield agreed that Verbal
Response was high priority.

Public school systems of Waterbury, Hartford, and
Springfield rated Verbal Response as a high priority skill
and did not disagree with any group except for the Spring-
field administrators. University teachers and intern
teachers from the University of Hartford and the University
of Massachusetts were consistent in giving this specific
skill a high priority rating, consequently, Verbal Response
became the first skill that was listed as necessary for
future teachers to acquire prior to teaching.

Non-Verbal Response, Fluency in Asking Questions,
Probing Questions, High Order Questions and Divergent
Questions received similar high priority responses from all
educators involved in the study. The Reinforcement skill
received an average priority rating from Waterbury Public
School Teachers, but recorded a high priority rating from
each of the other educators in the public schools and
universities. Differences in scores given to eleven
specific skills were only slight in most cases, in that
they only differed in how high the mean score favored high
priority. These Instructional Skills were Cueing, Set
Induction, Stimulus Variation, Closure, Use of Examples,

Summarizing, Motivational, Introduction, Lesson Review,
Individualized Study and Completeness of Communication.
The educators in various locations did not disagree on the
high priority rating recorded on these specific skills,
therefore, these skills joined the list of high priority
selection. However, there were some eight remaining
instructional skills that recorded disagreements from
different types of educators. Waterbury's administrators
and teachers disagree with Silence and Non-Verbal Cues,
though all other educators rated this skill as high priority.
This same type of disagreement was followed by one group of
educators for the Introduction and Lesson Review skills.
This time public school administrators were the only
educators to record low scores for these two skills.

The disagreement by educators was reversed for the
Lecture skill because the majority surveyed recorded scores
indicating this skill to be only average priority. Spring-
field teachers and administrators as well as Hartford
public school teachers recorded this skill as high priority.
However, the overwhelming number of all the other educators
recorded this skill as average priority. In the final
analysis the Lecture skill was considered as secondary in
nature and was listed as such. There was disagreement in
the ratings recorded for the Planned Repetition and Using
Oral Report skills, which were the last two specific skills
in the general Instructional area. Waterbury and Hartford

administrators, plus Waterbury teachers recorded negative
scores for this skill, although it still received a high
priority rating from the remaining educators so was just
able to maintain the mean score necessary to be selected for
a top rating.

A complete table is presented in Appendix G showing
scores and comparisons of these Instructional skills by
age, sex, and status. The same type of data was available
in Appendix G for the Human Relations skills. Although
there was some disagreement with educators on these skills,
it was just as outstanding as the other general skill areas.
Most of the educators agreed with this group of skills and
all of these specific skills recorded a high priority
rating. The only difference was found in scores given to
the Large Group skill, when Waterbury public school teachers
disagreed with the rating of this skill and recorded a low
score that was average in rating. This score was the only
difference shown for this skill and did not affect the final
means in rating. The remaining six skills of Self Concept,
Decision Making, Small Group, Tutorial, Problem Solving and
Classroom Management did not record any significant dif-
ferences in their rated scores. The Human Relations skills
received a better recorded rating from educators than any
other general skill. Therefore, this complete group of
skills became part of the listing of high priority ratings
for a teacher training program. The final two general

groups of skills did record disagreement from the educators in the study.

Planning and Evaluation skills had four specific skills in each group. The most consistent differences in rating the Planning skills came from intern teachers enrolled at the University of Hartford. These beginning educators rated each of the Planning skills as average priority. There were some educators to agree with these interns, but not enough to change any of these skills to an average priority rating. Springfield public school teachers agreed in the average rating for the Behavioral Objective skill with the interns from the University of Hartford, but these were the only two groups of educators who rated this skill as average.

A similar rating was recorded for the Record Keeping skill. For this specific skill Waterbury school teachers and the University of Massachusetts administrators agreed with the low order of responses rendered by interns from the University of Hartford. Record Keeping came very close to becoming an average priority skill, but still received enough positive scores from other educators that were conducive to a high priority ranking. Further information on the Planning skills was presented in the form of comparisons of sex, age, and status in Appendix I.

The final general area of skills that educators in this study reviewed were the Evaluation skills. Out of

these four Evaluation skills, only one had any significant differences in the recorded scores. There were considerable differences to the Standardized Testing skill. Springfield teachers, Springfield administrators, University of Hartford administrators, University of Hartford interns, University of Massachusetts teachers and University of Massachusetts interns all agreed that Standardized Testing was an average priority rated skill. There were a few educators who rated this skill as a high priority, but there were too many educators who responded in such a way that this skill was placed on the secondary list in the final grouping. Diagnostic, Test Making and Test Procedures, all received high priority ratings and became part of the final listing of specific skills. (See Appendix J for a comparison of the specific skills with age, sex, and status.)

Discussion of the Analysis

Both the University of Hartford and the University of Massachusetts have a skill oriented Teacher Education Program in operation, although the University of Hartford has only utilized this type of program for one year. Therefore, it was assumed that college administrators from these two institutions would score high priority ratings for the majority of the specific skills because these individuals composed the policy making body which made the final decisions on the type of curriculum to be utilized

in the training of students in their respective universities. This assumption proved to be true; only two specific skills received negative scores from these educators.

It was surprising how aware all of the individual educators were of the skills in the study at the University of Hartford. It was quite noticeable that some skills were being emphasized more than other skills by the inconsistent scoring rendered by the intern teachers from this college. However, this same type of inconsistency was recorded by many of the intern teachers from the University of Massachusetts. This type of rating was not expected from the interns from this University, because one of the Model Teacher Education Programs (METEP) under study is housed in this school.

Another interesting detail can be seen when each group of educators from both of these colleges rendered scores that rated the Standardized Testing and Lecture skills as having only secondary importance. Educators for years have disagreed with the use of Standardized Testing, but this study was not set up for directly obtaining responses to the use of a testing tool for elementary students. It is a fact, however, that teachers have to read scores from different standardized tests given to their students and there must be a correct interpretation of these scores. If future teachers are not trained in the use and interpretation of Standardized Testing, many

elementary school children will be faced with the possibility of being subjected to inappropriate labeling that could hurt them for the rest of their lives.

It was hard to understand why the Lecture Skill was considered secondary in importance, as lecturing is a part of most teachers' method of presentation. It also seems that college educators would understand this and provide the proper training in lecturing effectively. Without proper training in this specific skill future teachers will be limited in how they teach and will be limiting learning for many elementary students.

College teachers placed a high value on the question type of skills in the Instructional group, more than any other educators involved in the study. This would seem to mean that these college teachers felt that being able to ask different types of questions was very important for prospective teachers to learn before teaching. College teachers taking this posture toward the Instructional skills does indicate more types of discussion or positive exchance of information between students and teachers is highly necessary if the educational process is going to be successful.

Even though positive ratings were given to the Planning group of skills, intern teachers did not project this rating in their scores. The University of Massachusetts' group of educators seemed to emphasize many of the

Planning skills, like Behavioral Objectives, as unnecessary.
However, this skill was well received by public school
educators in Hartford, Connecticut where teachers are now
required to complete their plans in the Behavioral Objective
format. This plan requires educators to know if they have
been able to accomplish what they set out to do in each
prepared lesson. If future teachers take the attitude that
they are not interested in learning how to prepare lessons
in this manner, they will lack the ability of not only how
to write in this style, but will also be unable to understand
what their students have learned from each lesson taught
during the day. Therefore, some type of pre-planning should
be considered of importance, prior to teaching a lesson,
even if the traditional lesson planning skill is to be
utilized.

Some outstanding features were analyzed after
reviewing the scores recorded by the public school educators
of Waterbury, Connecticut; Springfield, Massachusetts; and
Hartford, Connecticut. Basically, the only group of public
school educators that seemed to have recorded a large
number of negative scores were administrators from Water-
bury, Connecticut. This group of educators gave highest
priority rating to skills relating to controlling students'
behavior in the classroom. Reinforcement, Planned Repeti-
tion and Stimulus Variation were specific skills that
received high ratings from these administrators. This is

understandable when what is generally expected by adminis-
trators of their teachers is the ability to control
behavioral problems as well as class instruction.

Teachers on the other hand suggested from their
scores that they were interested in the Human Relations
skills and the question skills in the Instructional group.
It was surprising that the older teachers were in favor of
the Human Relations Skills, because these types of skills
seemed to have been somewhat omitted in the past training
of teachers.

It would seem that after a number of years in the
field of education that these educators have come to
realize the importance of this group of skills through
experience. Therefore, the assumption made at the beginning
of the study that younger educators would rate the Human
Relations skills higher than older educators, proved to be
incorrect.

Presently, educators have suggested that there are
some differences in teaching in an urban elementary school
as compared with teaching in a suburban school. While this
may be true, no reference to any of these possible differ-
ences in both school settings was made in the responses
recorded by educators working in either location. It was
also assumed at the beginning of the study that there would
not be many differences in the rating of these specific
skills because of locations. This assumption proves to be

true, even though the educators in the suburban schools were
college personnel who either had prior teaching experience
in suburban school settings or college teachers who were now
supervising intern teachers in the same type of setting in
which they received their experiences. The educators from
the urban setting were employed as teachers in the public
school system. Each group had differences in what skills
they placed emphasis on, but ratings were basically the same
for the skills that received high priority.

A total of five basic assumptions were made at the
beginning of this study. Three of these assumptions have
been presented in the analysis of the data because they
were directly related to the topic, but two assumptions
were expressed separately, because they might cause some
confusion to the reader. The last two assumptions were:
(1) this study will present data that can be useful in the
preparation of secondary teachers as well as college
teachers; and (2) this study will involve many educators
who have an understanding of teaching skills. Although,
this study was centered around the preparation of elementary
teachers, the results may be applied to teachers in
secondary schools, colleges, and universities. Secondary
teachers can be aided by the use of these specific skills
because the skills are concerned with the art of teaching,
even though the recorded data did not indicate whether
secondary teachers should receive similar training to that

of elementary teachers. On the other hand, college teachers
in a teacher education program that will be in the process
of training elementary teachers will have to know all of the
different aspects of these specific skills so as to be able
to teach these skills to future elementary teachers.

In the final assumption it was discovered that
administrators, teachers and intern teachers at the Univer-
sity of Hartford and the University of Massachusetts are
totally committed to their types of skill oriented programs.
After reviewing the results of the data recorded by these
college educators it was not only apparent that they were
aware of the specific skills, but were involved in a skill
oriented program. The public school educators did not
differ in their ratings of the specific skills that recorded
high priority scores. With this type of consistency
displayed there seems to be substantial indication that
these individuals were well informed about the specific
skills. Consequently, both college and public school
educators prove the last assumption to be valid.

Out of the five assumptions listed in Chapter I,
only one assumption did not prove to be valid. Comparing
whether or not older individuals would not rate the Human
Relations skills as highly as beginning educators indicates
that there was a slight discrepancy in this assumption.
However, the assumption that all teachers, no matter their
level of employment, could use these skills for teaching

was not proven correct or incorrect. To further understand
the implications surrounding this assumption, there would
have to be a concurrent investigation as to what skills are
necessary for secondary and college teachers to possess
before teaching.

Summary

It was discovered that many of the specific skills
were being utilized at the University of Massachusetts and
the University of Hartford, but some skills were being
emphasized more than others by the type of scores that were
rendered by interns from both colleges. It is true that
individual teachers will have preference as to which skills
they consider more important, but this can be faulty. If
intern teachers as well as prospective teachers learn to
use only certain skills they will become very limited in
the type of performance rendered. Therefore, all the skills
which received a high priority rating should be emphasized
equally.

Other distinctions analyzed dealt with college
teachers' and administrators' responses, plus responses
that were supplied by public school educators. Both college
faculties must believe in their curriculums. If they do not
their true feelings will be identified by their students.
College teachers, for example, placed high value on the
Instructional skills. This same type of response was

projected by their students. When intern teachers recorded certain skills as almost average, a similar response was recorded by administrators on the college level. These administrators were very individualistic in that their responses did not follow any particular pattern, but rated a large number of skills as high priority throughout the study.

Public school administrators were conclusively in favor of most listed skills, except for the two that did not receive high priority ratings. This group did favor traditional skills. Although there were only four Human Relations Skills, they received their highest scores from public school teachers. This group, however, did not overlook the need for question type skills.

Implications for Change

Today's teacher education programs have come a long way in the last few years, especially since more universities and colleges are now starting to include in their programs a competency based curriculum that requires college students to learn skills along with traditional material. It is still very easy to criticize teacher education programs, because much still has to be accomplished before they can be considered as being truly contemporary. Roland Meighan and Peter Chambers speak to this issue in the book called, <u>The Future of Teacher</u>

Education.

> The change has demanded new skills, different attitudes
> and more knowledge, yet the concept of basic training
> hardly takes this into account. It would probably be
> preferable to apply an alternative concept of initial
> training in which practitioners are expected to develop
> competence in a few defined skills and undertake further
> periods of training in order to extend these.[92]

All universities mentioned in this study seem to be
trying to upgrade teacher training curriculums, as was
evident from the different educational structures developed
in these programs.

To include different teaching skills in the curric-
ulums of teacher education programs should be just the
first step towards improvement. Some of the other types of
improvements that should be given consideration along with
continuing a skill orientation program include the following:
Retraining System, Phase Training, and Concurrent Training
Periods.

Retraining System

The training of prospective teachers in the use of
specific teaching skills can only be maintained effectively
by instituting a retraining system. This system should
include teachers in all levels of education who are working
directly or indirectly with prospective teachers. These

---

[92] Roland Meighan and Peter Chambers, "The Structure
of Teacher Education," In The Future of Teacher Education
(London: Routledge and Kegan Paul, 1971), p. 157.

individual educators should be placed in cycle type of training similar to a competency-based structure, which would provide in its curriculum an array of specific teaching skills appropriate for the educational areas in which they are engaged. The purpose of this type of system would be two-fold, in that it would retrain teachers who are presently employed in education and would provide for prospective teachers a source of cooperating teachers who have knowledge and expertise about a large number of specific skills.

College teachers who would start the training of these future educators should be retrained on their levels so they can be involved with continued improvements for this type of program. This means that a somewhat large number of individuals would be involved in an operation in this type of retraining. Meighan and Chambers refer to Perry who in 1969 suggested,

> An initial phase, together with further inservice periods, could do this and dispel any myths about who enjoyed the monopoly of effective teaching procedures. It would also enable teachers to keep up to date in their knowledge and skills and build these up in stages with opportunities to reflect on their theoretical bases and remain flexible in response to change based on research.[93]

Meighan and Chambers refer to Perry's concept as a new concept which has merit for developing a process that can provide training for teachers.

---

[93]Ibid.

Other elements would need consideration especially with the overcrowded conditions in many institutions of higher education. College educators who do have the expertise in teaching specific skills might need to be involved along with public school administrators in some inservice training programs utilizing their proficiency in teaching skills. A variety of learning structures could very easily be devised to combat the number of educators to be trained or retrained, in an inservice program.

Phase Training

A further need of the improvement of teacher education programs would be in the area which is called Phase Training. Presently, in teacher education programs there are some distinct phases that undergraduate students pursuing a teacher's certificate go through, these have already been explained in Chapter II. Possibly more than thirty-eight priority skills will be needed in a teacher education program because at the University of Michigan there were 2,700 systems already in operation, therefore, a reordering of priorities for skills will need to be an ongoing, continuous process, along with further investigation of possible new teaching skills. This procedure should take place so as not to overload college students and eventually cause confusion with respect to orderly subject progression. This can easily be accomplished with

the use of modules and independent study contracts. When the number of teaching skills are researched and developed along with teaching models, further retraining of teachers will once again transpire. Consequently, Phase Training might provide some direction for reducing the need for a large number of individual educators on the same level. Meighan and Chambers state, "A concept of Phase Training would, therefore, reduce the consequences of the retraining system and improve the communications between colleges and schools."[94]

Concurrent Training

If a Concurrent Training system is going to be successful, the communications in operation in many universities need constant revision. Meighan and Chambers explain Concurrent Training as students receiving all courses for "Personal," "Educational," and "Professional" education concurrently. This type of system would help in the development of a correlation between academic subjects and professional subjects in the field of education. Granted many subjects that students in colleges take today for the first two years are separate from the subjects they take the last two years. This does not seem, in many cases, to show students the relevancy or necessity for the subjects

---

[94] Ibid.

that are being offered. Elementary teachers are taught in a
traditional classroom to correlate their subjects so as to
maintain interests in their students in what is being taught
and to show through this method how these subjects will aid
them in the future. Meighan and Chambers feel; "During the
basic courses the academic and professional aspects should
develop side by side."[95]

Institutions of higher education separate academic
and professional subjects which has caused a lack of
communication between students and departments as well as
a lack of understanding of the basic need for each subject.
Meighan and Chambers refer to this dilemma in the following
way:

> One consequence of a structure devoted to concurrent
> training is the familiar divisions in colleges between
> academics and main subject and professionals in educa-
> tion departments. It is sometimes further differen-
> tiated by similar divisions within the education
> departments.[96]

If a cooperative team teaching approach were
instituted in colleges both academic subjects and profes-
sional subjects could possibly be structured so relevancy
could be developed and maintained throughout the four year
training period. Students might have the opportunity
through this procedure of not only learning teaching skills
and pedagogical elements, but also all subjects that are

---

[95] Ibid.

[96] Ibid., p. 158.

considered academic requirements. Projecting a positive
thought to the use of Retraining systems, Phase Training
and Concurrent Training systems along with a profound and
all encompassing skill oriented program, many future
teachers might just have a better chance to become out-
standing educators and teacher education programs could
become more than just a mass production corporation.

Summary and Conclusion

This study was undertaken as a result of recent
progress made in developing teacher training skills.
Initial impetus was provided when the University of
Massachusetts, Michigan State University and the University
of Georgia's Model Teacher Education Programs were
mentioned as having some outstanding success in the way
they were preparing prospective teachers. One of the
reasons success was experienced by prospective teachers in
these three colleges was because a large number of specific
teaching skills were included in their curriculums.
Therefore, it was decided to identify all of the skills in
each of these teacher education programs, for the purpose
of developing a priority list of the most important
teaching skills to be utilized in a teacher education
program.

An unexpected problem occurred when the skill
identification process became too taxing, because such a

large number of skills were included in the programs being investigated. Emphasis was then changed from identifying all the teaching skills in these three model teacher education programs to identifying those with which each university agreed. Forty specific skills from the institutions of higher education already mentioned were identified and a questionnaire was developed for the purpose of rating these skills so as to find out their importance in a teacher education program. This final stage of the study proved to be time consuming because the questionnaire had to be redeveloped and retested a number of times to determine if it had the necessary reliability for securing correct data. Exclusive attention during this time was paid to the definition of each identified skill. The main purpose for including definitions in this questionnaire was to assist different educators in reading and understanding each skill that had to be rated. After some deliberation the task of developing a questionnaire was accomplished. Questionnaire responses gathered significant evidence summarizing the need for thirty-eight of the forty identified skills, thereby accomplishing the basic purpose of the study.

Further components were eventually added to the study after the data had been gathered. These components provided information on the analysis of the data and implications for future changes. "The analysis of the data" and the basic assumptions that were projected at the

beginning of the study were included together to provide the opportunity for understanding how the study had progressed. "Implications for Changes" provided information concerning the type of educational structure that would be needed if a skill oriented program is going to continue having success. Such programs would have a far reaching skill learning improvement effect, of course including only specific teaching skills into a teacher education program would be only a beginning, not an end result.

Prospective teachers are not the only educators who are lacking a proficiency training. Professional teachers on many levels in education have had this problem in the past, but presently educators on a college level are directly in need of receiving some form of retraining if they are going to effectively teach prospective teachers. All educators either directly or indirectly affiliated with future teachers should in fact be retrained. Their re-training alone will not guarantee the success of the program; however, a skill oriented program developed not only for prospective elementary school teachers, but also for the retraining of a wide spectrum of teachers will result in better prepared students and, consequently, more effective education.

APPENDIX A

SOURCE IDENTIFICATION

In Tables 7, 8, 9, 10, and 11 reference was made to the appendix as possessing the necessary information concerning the location of specific skills that were identified in each model teacher education program.

Each Specific skill was identified in the Eric Files on Microfiche. The following information identifies the location of Specific skills by program.

In the University of Georgia's Model Teacher Education Program the Specific Teaching skills were identified in the Feasibility Study: Volume I, Education 042-722; Volume II, Education 042-728; Volume III, Education 042-729; and The Guide to Georgia Specifications: Education 035-606. Michigan State University's Model Teacher Education Program, Specific Teaching skills were identified in the Final Report: Volume I, Education 027-285; Volume II, Education 027-286; Volume III, Education 027-287; Summary, Education 035-597 and the Feasibility Study: Education 041-868. The University of Massachusetts' Model Teacher Education Program, Specific Teaching skills were identified in the Proposal: Education 025-490; Summary: Education 033-876; Guide to Elementary Final Report: Education 035-608, Feasibility Study: Volume I, Education 043-582 and Volume II, Education 043-583. In conclusion, the Specific skills were either listed or mentioned indirectly throughout these sources that were presented.

APPENDIX B

DEVELOPMENT OF A QUESTIONNAIRE

A number of questionnaires were pre-tested and eventually one was selected that possessed the necessary components for positive use.

The first questionnaire was found irrelevant because it lacked the necessary ability for fostering reliable data.

Further consultation with research specialists provided alternatives that were utilized in the development of the second questionnaire. When this tool was pre-tested it was found that many improvements were made, but this questionnaire still lacked the necessary components for harvesting correct data. Specifically, the introduction was misleading and the definitions were not in conclusive context.

The third questionnaire showed improvements in the introduction after pre-testing, but the definitions of the specific skills did not clearly state whether pupils in public schools or future teachers in teacher education programs should possess specific skills. Finally, the last draft of the questionnaire was eventually used in the study. When pre-tested this questionnaire possessed the required specifications needed for compiling reliable data in line with the outlined purposes of this study.

QUESTIONNAIRE FORM

This survey has been developed to prioritize certain skills found in model teacher education programs. Below are listed teaching skills in the following areas: Instructional Skills, Human Relations Skills, Planning Skills, and Evaluation Skills. Please rate each skill according to the priority you would give it in a teacher training program, using the following scale:

1. High Priority
2. Average Priority
3. Low Priority
4. Unable to Rate

Please use the number representation above to rate the following skills below.

I. <u>Instructional Skills</u>   <u>Rating</u>

1. <u>Verbal Response</u> - A skill in which a prospective teacher learns how to respond to a statement during a lesson in a number of different ways in order to give the statement a number of different meanings.

2. <u>Non-Verbal Response</u> - A skill which prospective teachers learn how to use non-speaking behavior to communicate certain feelings and emotions in the instruction of a lesson.

3. <u>Verbal and Non-Verbal Responses</u> - A skill in which prospective teachers learn how to combine non-speaking responses with appropriate verbal statements while in the process of instructing a lesson.

4. <u>Fluency in Asking Questions</u> - A skill in which prospective teachers learn how to develop proficiency in asking clear, comprehensive questions during a lesson.

5. <u>Probing Questions</u> - A skill in which prospective teachers learn how to ask questions that require students to go beyond superficial first answers.

I. <u>Instructional Skills</u>

    6. <u>High Order Questions</u> - A skill in which prospective teachers learn how to get students to call on higher levels of thinking during a lesson that cannot be answered from memory.

    7. <u>Divergent Questions</u> - A skill in which prospective teachers learn how to involve combining probing and higher order questions in a lesson.

    8. <u>Reinforcement</u> - A skill in which prospective teachers learn how to reward students with appropriate behavior.

    9. <u>Recognizing Attending Behavior</u> - A skill in which prospective teachers learn certain non-verbal reactions made by students in regards to getting attention.

   10. <u>Silence and Non-Verbal Cues</u> - A skill in which prospective teachers learn how to use actions as gesturing to elicit a look from students.

   11. <u>Cueing</u> - A skill in which prospective teachers learn how to control successful experiences in answering questions by students.

   12. <u>Set Induction</u> - A skill in which prospective teachers learn how to establish cognitive rapport between pupils and instructor so as to obtain immediate involvement in learning objectives.

   13. <u>Stimulus Variation</u> - A skill in which prospective teachers learn how to develop attention producing behavior in students.

   14. <u>Closure</u> - A skill in which prospective teachers learn how to make sure that a major portion of a lesson has been learned by students.

I. <u>Instructional Skills</u>   <u>Rating</u>

15. <u>Use of Examples</u> - A skill in which pro-
     spective teachers learn how to clarify,
     verify, or substantiate concepts to
     students.

16. <u>Summarizing</u> - A skill in which prospec-
     tive teachers learn how to condense
     oral and written presented material to
     students.

17. <u>Motivational</u> - A skill in which prospec-
     tive teachers learn how to apply the
     application of incentives causing
     students to perform in a certain way.

18. <u>Introduction</u> - A skill in which pro-
     spective teachers learn to begin a unit
     of work after formulating objectives for
     instruction.

19. <u>Lesson Review</u> - A skill in which pro-
     spective teachers learn how to present
     examined large units of works to
     students.

20. <u>Individualized Study</u> - A skill in which
     prospective teachers learn how to
     provide ways of developing activities
     that are differentiated for the needs
     of students.

21. <u>Panel Discussions</u> - A skill in which
     prospective teachers learn how to
     conduct a presentation that group or
     individual students discuss a topic with
     or without active participation by an
     audience.

22. <u>Lecture</u> - A skill in which prospective
     teachers learn how to organize and
     present oral information to students.

23. <u>Planned Repetition</u> - A skill in which
     prospective teachers learn how to use
     redundance in focusing and highlighting
     important points and describing them
     from different points of view during a
     lesson.

I. Instructional Skills Rating

24. <u>Completeness of Communication</u> - A skill in which prospective teachers learn how to develop clear, through communication with students. □

25. <u>Using Oral Report</u> - A skill in which prospective teachers learn how to facilitate a planned presentation by individuals or groups of students. □

II. Human Relations Skills

1. <u>Self Concept</u> - A skill in which prospective teachers learn how to utilize not only the traditional self-picture while teaching, but also the picture one has of how others see them. □

2. <u>Decision Making</u> - A skill in which prospective teachers learn how to develop alternative definitions, alternative strategies, and alternative contingencies that are utilized in classroom situations. □

3. <u>Small Group</u> - A skill in which prospective teachers learn how to focus on the process of interaction with a relatively small number of students. □

4. <u>Large Group</u> - A skill in which prospective teachers learn how to focus attention on the process of interacting with relatively large numbers of students. □

5. <u>Tutorial (one on one)</u> - A skill in which prospective teachers learn the dynamics of working with a single student. □

6. <u>Problem Solving</u> - A skill in which prospective teachers learn how to select the correct one of two or more possible responses while teaching. □

II. <u>Human Relations Skills</u>   <u>Rating</u>

      7. <u>Classroom Management</u> - A skill in
which prospective teachers learn how
to perform such problems as discipline,
democratic techniques, care of supplies,
reference materials, physical features
of the classroom, general housekeeping
and social relationship of pupils.

III. <u>Planning Skills</u>

      1. <u>Lesson Planning</u> - A skill in which
prospective teachers learn how to
prepare a daily teaching schedule for
instruction.

      2. <u>Unit Planning</u> - A skill in which pro-
spective teachers learn how to plan
instruction that will include discovery,
verification, decision making and
criticism in subject content.

      3. <u>Behavior Objectives</u> - A skill in which
prospective teachers learn how to
communicate clearly what behavior is to
be achieved by students.

      4. <u>Record Keeping</u> - A skill in which pro-
spective teachers learn the procedure
of recording information on students.

IV. <u>Evaluation Skills</u>

      1. <u>Diagnostic</u> - A skill in which prospective
teachers learn ways in discovering
special abilities, difficulties, interests
and problems, as well as analyzing infor-
mation in records before attempting to
guide a student.

      2. <u>Test Making</u> - A skill in which prospec-
tive teachers learn how to construct
different types of teacher made evaluation
instruments for the purpose of assessing
student progress.

IV. <u>Evaluation Skills</u>   <u>Rating</u>

    3. <u>Standardized Testing</u> - A skill in
       which a teacher learns how to select,
       administer and interpret a relatively
       objective type of test.

    4. <u>Testing Procedure</u> - A skill in which
       teachers learn the stipulated opera-
       tions of an evaluation tool.

APPENDIX C

QUESTIONNAIRE LETTERS

Appendix C presents two letters that were utilized in the study. The first letter introduced each accompanied questionnaire that was distributed to respondents involved in the study.

The second letter reestablished an introduction to the questionnaire. This letter was distributed to respondents who did not return the questionnaire after a period of time.

The Commonwealth of Massachusetts
University of Massachusetts
Amherst 01002

February 19, 1973.

Dear Educator,

The researcher for this study is a senior
doctoral student at the University of Massachusetts, who
has identified forty teaching skills from three model
teacher education programs. While the University of
Massachusetts, Michigan State University and the
University of Georgia agree on these teaching skills,
they did not provide information on what skills were
needed the most by prospective teachers before teaching.
Therefore, the objective of this questionnaire is to
prioritize these teaching skills that are being utilized
by prospective teachers before teaching.

Hopefully, the results from this questionnaire
will provide data to that effect. Thank you for your
assistance.

Sincerely,

Walter Dean

The Commonwealth of Massachusetts
University of Massachusetts
Amherst 01002

SCHOOL OF EDUCATION

March 20, 1973.

Dear Educator,

A questionnaire was forwarded to you on February 19, 1973, that listed forty Specific Skills being used in three model teacher education programs. Your completed questionnaire is very essential in developing a priority list of Specific Teaching skills that should be used in preparing future teachers. Along with this letter of introduction is a second questionnaire to be completed if you haven't received the first one.

Thank you for your cooperation.

Sincerely yours,

Walter Dean

APPENDIX D

In the main body of the study, reference was made to tables that would reflect data concerning the first five variables. The following information assembled in these tables on pages 158 to 175 represents statistical data in the form of crosstabulation of each variable.

TABLE 63

ATTRIBUTES

```
******************************************************************
CONTROLLING FOR..
     STATUS                        VALUE    3.00    INTERNS
BY   AGE                           VALUE    1.00    UNDER 21
BY   SEX                           VALUE    1.00    MALE

******************************************************************

                           URBSUBRB
                COUNT   I
                ROW PCT I SUBURBAN     ROW
                COL PCT I              TOTAL
                TOT PCT I     2.00 I
LOCATION        ----------I----------I
                1.00   I      1 I        1
U OF MASS              I  100.0 I 100.0
                       I  100.0 I
                       I  100.0 I
                       I----------I
                COLUMN         1        1
                TOTAL      100.0    100.0

******************************************************************
Source:  Computer Program (SPSS Overlay), Ed.
```

TABLE 64

ATTRIBUTES

****

CONTROLLING FOR..

	STATUS	VALUE 1.00	ADMINISTRATORS
BY	AGE	VALUE 2.00	21 TO 38
BY	SEX	VALUE 1.00	MALE

****

```
                    COUNT    I
                    ROW PCT  I    URBAN        ROW
                    COL PCT  I                 TOTAL
                    TOT PCT  I      1.00 I
LOCATION            ---------I----------I
                     2.00   I      1    I        1
SPRINGFIELD                 I    100.0  I      33.3
                            I     33.3  I
                            I     33.3  I
                            I----------I
                     3.00   I      2    I        2
HARTFORD                    I    100.0  I      66.7
                            I     66.7  I
                            I     66.7  I
                            I----------I
                    COLUMN          3            3
                    TOTAL         100.0        100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 65

ATTRIBUTES

****

CONTROLLING FOR..

STATUS	VALUE	2.00	TEACHERS
BY AGE	VALUE	2.00	21 TO 30
BY SEX	VALUE	1.00	MALE

****

		URBSUBRB		
	COUNT I			
	ROW PCT I	URBAN	SUBURBAN	ROW
	COL PCT I			TOTAL
	TOT PCT I	1.00 I	2.00 I	
LOCATION	----------I----------I----------I			
1.00	I	0 I	2 I	2
U OF MASS	I	0.0 I	100.0 I	28.6
	I	0.0 I	50.0 I	
	I	0.0 I	28.6 I	
	I----------I----------I		
4.00	I	0 I	2 I	2
U OF HARTFORD	I	0.0 I	100.0 I	28.6
	I	0.0 I	50.0 I	
	I	0.0 I	28.6 I	
	I----------I----------I		
5.00	I	3 I	0 I	3
WATERBURY	I	100.0 I	0.0 I	42.9
	I	100.0 I	0.0 I	
	I	42.9 I	0.0 I	
	I----------I----------I		
COLUMN		3	4	7
TOTAL		42.9	57.1	100.0

CHI SQUARE = 7.00000 WITH 2 DEGREES OF FREEDOM
CRAMERS V = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS TAU B = -0.86603
KENDALLS TAU C = -0.97959
GAMMA = -1.00000
SOMERS D = -1.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 66

ATTRIBUTES

****

CONTROLLING FOR..
```
     STATUS                      VALUE   3.00    INTERNS
BY   AGE                         VALUE   2.00    21 TO 30
BY   SEX                         VALUE   1.00    MALE
```

****

```
                              URBSUBRB
                 COUNT   I            I
                 ROW PCT I SUBURBAN I    ROW
                 COL PCT I          I    TOTAL
                 TOT PCT I     2.00 I
LOCATION         ---------I----------I
                 1.00    I       5  I       5
U OF MASS                I  100.0   I    71.4
                         I   71.4   I
                         I   71.4   I
                         I----------I
                 4.00    I       2  I       2
U OF HARTFORD            I  100.0   I    28.6
                         I   28.6   I
                         I   28.6   I
                         I----------I
                 COLUMN          7          7
                 TOTAL       100.0      100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 67

ATTRIBUTES

```
**************************************************************
```

CONTROLLING FOR..
      STATUS   VALUE   1.00   ADMINISTRATORS
BY   AGE   VALUE   3.00   31 TO 40
BY   SEX   VALUE   1.00   MALE

```
**************************************************************
```

	COUNT	URBSUBRB		ROW
	ROW PCT	URBAN	SUBURBAN	ROW
	COL PCT			TOTAL
	TOT PCT	1.00	2.00	
LOCATION				
U OF MASS	1.00	0 / 0.0 / 0.0 / 0.0	2 / 100.0 / 100.0 / 22.2	2 / 22.2
SPRINGFIELD	2.00	2 / 100.0 / 28.6 / 22.2	0 / 0.0 / 0.0 / 0.0	2 / 22.2
HARTFORD	3.00	2 / 100.0 / 28.6 / 22.2	0 / 0.0 / 0.0 / 0.0	2 / 22.2
WATERBURY	5.00	3 / 100.0 / 42.9 / 33.3	0.0 / 0.0 / 0.0 / 0.0	3 / 33.3
COLUMN TOTAL		7 / 77.8	2 / 22.2	9 / 100.0

CHI SQUARE = 9.00000 WITH 3 DEGREES OF FREEDOM
CRAMERS V = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS TAU B = -0.68313
KENDALLS TAU C = -0.69136
GAMMA   = -1.00000
SOMMERS D   = -1.00000

```
**************************************************************
```

Source: Computer Program (SPSS Overlay), Ed.

TABLE 68

ATTRIBUTES

****

CONTROLLING FOR..
    STATUS   VALUE   2.00   TEACHERS
BY   AGE   VALUE   3.00   31 TO 40
BY   SEX   VALUE   1.00   MALE

****

URBSUBRB

	COUNT ROW PCT COL PCT TOT PCT	URBAN 1.00	SUBURBAN 2.00	ROW TOTAL
LOCATION				
U OF MASS	1.00	0 0.0 0.0 0.0	1 100.0 50.0 8.3	1 8.3
SPRINGFIELD	2.00	4 100.0 40.0 33.3	.0 0.0 0.0 0.0	4 33.3
HARTFORD	3.00	5 100.0 50.0 41.7	0 0.0 0.0 0.0	5 41.7
U OF HARTFORD	4.00	0 0.0 0.0 0.0	1 100.0 50.0 8.3	1 8.3
WATERBURY	5.00	1 100.0 10.0 8.3	0 0.0 0.0 0.0	1 8.3
COLUMN TOTAL		10 83.3	2 16.7	12 100.0

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 69

ATTRIBUTES

****

CONTROLLING FOR..
STATUS		VALUE	1.00	ADMINISTRATORS
BY AGE		VALUE	4.00	41 TO 50
BY SEX		VALUE	1.00	MALE

****

URBSUBRB

COUNT ROW PCT COL PCT TOT PCT	URBAN 1.00	SUBURBAN 2.00	ROW TOTAL
LOCATION			
2.00 SPRINGFIELD	1 100.0 16.7 12.5	0 0.0 0.0 0.0	1 12.5
3.00 HARTFORD	2 100.0 33.3 25.0	0 0.0 0.0 0.0	2 25.0
4.00 U OF HARTFORD	0 0.0 0.0 0.0	2 100.0 100.0 25.0	2 25.0
5.00 WATERBURY	3 100.0 50.0 37.5	0 0.0 0.0 0.0	3 37.5
COLUMN TOTAL	6 75.0	2 25.0	8 100.0

CHI SQUARE = 8.00000 WITH 3 DEGREES OF FREEDOM
CRAMERS V = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS TAU B = 0.00000
KENDALLS TAU C = 0.00000
GAMMA = 0.00000
SOMERS D = 0.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 70

ATTRIBUTES

****

CONTROLLING FOR..
STATUS   VALUE   2.00   TEACHERS
BY   AGE   VALUE   4.00   41 TO 50
BY   SEX   VALUE   1.00   MALE

****

		URBSUBRB		
COUNT	I			
ROW PCT	I	URBAN	SUBURBAN	ROW
COL PCT	I			TOTAL
TOT PCT	I	1.00 I	2.00 I	
LOCATION ----------I----------I----------I				
1.00 I	0 I	1 I	1	
U OF MASS I	0.0 I	100.0 I	50.0	
I	0.0 I	100.0 I		
I	0.0 I	50.0 I		
I----------I----------I				
2.00 I	1 I	0 I	1	
SPRINGFIELD I	100.0 I	0.0 I	50.0	
I	100.0 I	0.0 I		
I	50.0 I	0.0 I		
I----------I----------I				
COLUMN	1	1	2	
TOTAL	50.0	50.0	100.0	

FISHERS EXACT TEST = 0.50000
PHI = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS   TAU B = -1.00000
KENDALLS   TAU C = -1.00000
GAMMA   = -1.00000
SOMERS   D   = -1.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 71

ATTRIBUTES

****

CONTROLLING FOR..
```
    STATUS                          VALUE   1.00    ADMINISTRATORS
BY  AGE                             VALUE   5.00    51 AND OVER
BY  SEX                             VALUE   1.00    MALE
```

****

```
                              URBSUBRB
                  COUNT   I
                  ROW PCT I   URBAN        ROW
                  COL PCT I                TOTAL
                  TOT PCT I      1.00 I
LOCATION          ----------I----------I
                   3.00   I       1 I         1
HARTFORD                  I   100.0 I      33.3
                          I    33.3 I
                          I    33.3 I
                          I----------I
                   5.00   I       2 I         2
WATERBURY                 I   100.0 I      66.7
                          I    66.7 I
                          I    66.7 I
                          I----------I
                  COLUMN          3           3
                  TOTAL       100.0       100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 72

ATTRIBUTES

****

CONTROLLING FOR..
      STATUS   VALUE   3.00   INTERNS
BY   AGE   VALUE   1.00   UNDER 21
BY   SEX   VALUE   2.00   FEMALE

****

```
                              URBSUBRB
                  COUNT    I
                  ROW PCT  I SUBURBAN         ROW
                  COL PCT  I                  TOTAL
                  TOT PCT  I        2.00 I
LOCATION          ----------I----------I
                  4.00     I       4    I       4
U OF HARTFORD              I  100.0    I   100.0
                          I  100.0    I
                          I  100.0    I
                          I----------I
                  COLUMN          4            4
                  TOTAL        100.0        100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 73

ATTRIBUTES

****

CONTROLLING FOR..
STATUS	VALUE 1.00 ADMINISTRATORS
BY AGE	VALUE 2.00 21 TO 30
BY SEX	VALUE 2.00 FEMALE

****

```
                              URBSUBRB
                COUNT    I
                ROW PCT  I   URBAN        ROW
                COL PCT  I                TOTAL
                TOT PCT  I      1.00 I
LOCATION        ----------I----------I
                2.00     I      1  I        1
SPRINGFIELD              I  100.0  I    100.0
                        I  100.0  I
                        I  100.0  I
                        I----------I
                COLUMN          1          1
                TOTAL       100.0      100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 74

ATTRIBUTES

****

CONTROLLING FOR..
```
    STATUS                    VALUE   2.00    TEACHERS
BY  AGE                       VALUE   2.00    21 TO 30
BY  SEX                       VALUE   2.00    FEMALE
```

****

```
                            URBSUBRB
                COUNT   I
                ROW PCT I    URBAN      SUBURBAN      ROW
                COL PCT I                             TOTAL
                TOT PCT I     1.00 I      2.00
LOCATION        --------I----------I----------I
                1.00    I      0  I       2   I        2
U OF MASS               I    0.0  I   100.0   I       33.3
                        I    0.0  I   100.0   I
                        I    0.0  I    33.3   I
                        I----------I----------I
                2.00    I      4  I       0   I        4
SPRINGFIELD             I  100.0  I     0.0   I       16.7
                        I   25.0  I     0.0   I
                        I   16.7  I     0.0   I
                        I----------I----------I
                3.00    I      0  I       0   I        0
HARTFORD                I  100.0  I     0.0   I       50.0
                        I   75.0  I     0.0   I
                        I   50.0  I     0.0   I
                        I----------I----------I
                COLUMN         4          2            6
                TOTAL        66.7       33.3         100.0
```

CHI SQUARE = 6.00000 WITH 2 DEGREES OF FREEDOM
CRAMERS V = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS TAU B   =-0.85280
KENDALLS TAU C   =-0.88889
GAMMA   =-1.00000
SOMMERS D   =-1.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 75

ATTRIBUTES

****

CONTROLLING FOR..
```
     STATUS                       VALUE    3.00    INTERNS
BY   AGE                          VALUE    2.00    21 TO 30
BY   SEX                          VALUE    2.00    FEMALE
```

****

```
                           URBSUBRB
              COUNT   I
              ROW PCT I SUBURBAN        ROW
              COL PCT I                 TOTAL
              TOT PCT I     2.00 I
LOCATION      ---------I---------I
              1.00   I      2  I        2
U OF MASS            I  100.0  I     100.0
                     I  100.0  I
                     I  100.0  I
                     I---------I
              COLUMN        2           2
              TOTAL     100.0       100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 76

ATTRIBUTES

****

CONTROLLING FOR..
    STATUS   VALUE   1.00   ADMINISTRATORS
BY   AGE   VALUE   3.00   31 TO 40
BY   SEX   VALUE   2.00   FEMALE

****

| | URBSUBRB | | | |
COUNT ROW PCT COL PCT TOT PCT	URBAN 1.00	SUBURBAN 2.00	3.00	ROW TOTAL
1.00 U OF MASS	0 0.0 0.0 0.0	1 100.0 33.3 14.3	0 0.0 0.0 0.0	1 14.3
2.00 SPRINGFIELD	2 100.0 66.7 28.6	0 0.0 0.0 0.0	0 0.0 0.0 0.0	2 28.6
3.00 HARTFORD	1 100.0 33.3 14.3	0 0.0 0.0 0.0	0 0.0 0.0 0.0	1 14.3
4.00 U OF HARTFORD	0 0.0 0.0 0.0	2 66.7 66.7 28.6	1 33.3 100.0 14.3	3 42.9
COLUMN TOTAL	3 42.9	3 42.9	1 14.3	7 100.0

CHI SQUARE = 7.77778 WITH 6 DEGREES OF FREEDOM
CRAMERS V   = 0.74536
CONTINGENCY COEFFICIENT = 0.72548
KENDALLS   TAU B   = 0.43836
KENDALLS   TAU C   = 0.42857
GAMMA   = 0.53846
SOMERS D   = 0.46667

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 77

ATTRIBUTES

****

CONTROLLING FOR..

	STATUS	VALUE	2.00	TEACHERS
BY	AGE	VALUE	3.00	31 TO 40
BY	SEX	VALUE	2.00	FEMALE

****

URBSUBRB

COUNT ROW PCT COL PCT TOT PCT	URBAN 1.00	SUBURBAN 2.00	ROW TOTAL
LOCATION			
1.00 U OF MASS	0 0.0 0.0 0.0	3 100.0 75.0 50.0	3 50.0
2.00 SPRINGFIELD	1 100.0 50.0 16.7	0 0.0 0.0 0.0	1 16.7
4.00 U OF HARTFORD	0 0.0 0.0 0.0	1 100.0 25.0 16.7	1 16.7
5.00 WATERBURY	1 100.0 50.0 16.7	0 0.0 0.0 0.0	1
COLUMN TOTAL	2 33.3	4 66.7	6 100.0

CHI SQUARE = 6.00000 WITH 3 DEGREES OF FREEDOM
CRAMERS V   = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS   TAU B   =-0.61237
KENDALLS   TAU C   =-0.66667
GAMMA   =-0.75000
SOMERS D   =-0.75000
****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 78

ATTRIBUTES

****

CONTROLLING FOR..

	STATUS		VALUE	1.00	ADMINISTRATORS
BY	AGE		VALUE	4.00	41 TO 50
BY	SEX		VALUE	2.00	FEMALE

****

```
                           URBSUBRB
               COUNT    I
               ROW PCT  I    URBAN      SUBURBAN     ROW
               COL PCT  I                            TOTAL
               TOT PCT  I    1.00 I      2.00 I
LOCATION       ---------I----------I----------I
                 3.00   I      1  I       0  I       1
HARTFORD               I   100.0  I     0.0  I      50.0
                       I   100.0  I     0.0  I
                       I    50.0  I     0.0  I
                       I----------I----------I
                 4.00   I      0  I       1  I       1
U OF HARTFORD          I     0.0  I   100.0  I      50.0
                       I     0.0  I   100.0  I
                       I     0.0  I    50.0  I
                       I----------I----------I
               COLUMN          1          1           2
               TOTAL        50.0       50.0       100.0
```

FISHERS EXACT TEST = 0.50000
PHI = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS   TAU B = 1.00000
KENDALLS   TAU C = 1.00000
GAMMA   = 1.00000
SOMERS   D   = 1.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 79

ATTRIBUTES

****

CONTROLLING FOR..

	STATUS		VALUE	2.00	TEACHERS
BY	AGE		VALUE	4.00	41 TO 50
BY	SEX		VALUE	2.00	FEMALE

****

	COUNT I						
			URBSUBRB				
	ROW PCT I	URBAN		SUBURBAN			ROW
	COL PCT I						TOTAL
	TOT PCT I	1.00 I		2.00 I			
LOCATION	----------I----------I----------I						
	2.00 I	1	I	0	I		1
SPRINGFIELD	I	100.0	I	0.0	I		25.0
	I	50.0	I	0.0	I		
	I	25.0	I	0.0	I		
	----------I----------I----------I						
	4.00 I	0	I	2	I		2
U OF HARTFORD	I	0.0	I	100.0	I		50.0
	I	0.0	I	100.0	I		
	I	0.0	I	50.0	I		
	----------I----------I----------I						
	5.00 I	1	I	0	I		1
WATERBURY	I	100.0	I	0.0	I		25.0
	I	50.0	I	0.0	I		
	I	25.0	I	0.0	I		
	----------I----------I----------I						
	COLUMN	2		2			4
	TOTAL	50.0		50.0			100.0

CHI SQUARE = 4.00000 WITH 2 DEGREES OF FREEDOM
CRAMERS V = 1.00000
CONTINGENCY COEFFICIENT = 0.70711
KENDALLS TAU B   = 0.00000
KENDALLS TAU C   = 0.00000
GAMMA   = 0.00000
SOMERS D   = 0.00000

****

Source: Computer Program (SPSS Overlay), Ed.

TABLE 80

ATTRIBUTES

****

CONTROLLING FOR..
```
      STATUS                        VALUE   1.00    ADMINISTRATORS
BY  AGE                             VALUE   5.00    51 AND OVER
BY  SEX                             VALUE   2.00    FEMALE
```

****

```
                                URBSUBRB
                COUNT    I
                ROW PCT  I  SUBURBAN          ROW
                COL PCT  I                     TOTAL
                TOT PCT  I        2.00
LOCATION        ---------I----------I
                 1.00    I        3   I          3
U OF MASS                I    100.0   I      100.0
                         I    100.0   I
                         I    100.0   I
                         I----------I
                COLUMN            3             3
                TOTAL         100.0         100.0
```

****

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX E

Chapter IV which included the major data for this study made reference to further data for ages broken down by respondents. This information can be found in the following table.

TABLE 81

AGE VARIABLE

```
****************************************************************
CODE I
1.00 ******* (5) 5.6 PCT
     I
     I UNDER 21
     I
2.00 ******************************** (26) 28.9 PCT
     I
     I 21 TO 30
     I
3.00 ******************************************** (34) 37.8 PCT
     I
     I 31 TO 40
     I
4.00 ******************** (16) 17.8 PCT
     I
     I 41 TO 50
     I
5.00 *********** (9) 10.0 PCT
     I
     I 51 AND OVER
     I
     I....I....I....I....I....I....I....I....I....I....I....
     0        10       20       30       40       50
     FREQUENCY
```

STATISTICS

MEAN	2.978	STD ERROR	0.111	MEDIAN	2.912
MODE	3.000	STD DEV	1.049	VARIANCE	1.101
KURTOSIS	-0.484	SKEWNESS	0.279	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

VALID
OBSERVATIONS   90
MISSING
OBSERVATIONS   0

```
****************************************************************
```

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX F

Chapter IV refers to further information located in Appendix F on a comparison of scores for males and females who were involved in the study.

TABLE 82

SEX VARIABLE

```
*****************************************************************
CODE  I
1.00  ************************************************ (52) 57.8 PCT
      I
      I MALE
      I
2.00  ************************************ (38) 42.2 PCT
      I
      I FEMALE
      I
      I........I........I........I........I........I........I........
      0       10       20       30       40       50       60       70
         FREQUENCY

STATISTICS

MEAN                    1.422    STD ERROR   0.052    MEDIAN     1.365
MODE                    1.000    STD DEV     0.497    VARIANCE   0.247
KURTOSIS               -1.901    SKEWNESS    0.315    RANGE      1.000
MINIMUM                 1.000    MAXIMUM     2.000
VALID OBSERVATIONS        90
MISSING OBSERVATIONS       0

*****************************************************************
```

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX G

On the following page in Appendix G, Tables 83, 84, and 85 were presented. These tables represent a comparison of Instructional skill's scores with age, sex and status.

TABLE 83

INSTRUCTIONAL SKILLS COMPARED TO AGE

Variable for Entire Population	Code	Value Label	Mean 39.8330	Std Dev 10.0320	Variance 100.6350	N (90)
Age	1.00	Under 21	39.8000	8.6429	74.7000	(5)
Age	2.00	21 to 30	40.0385	14.1774	200.9985	(26)
Age	3.00	31 to 40	40.2647	8.3169	69.1702	(34)
Age	4.00	41 to 50	38.6875	7.8716	61.9625	(16)
Age	5.00	50 and over	39.6667	7.0000	49.0000	(9)

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 84

INSTRUCTIONAL SKILLS COMPARED TO SEX

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N (90)
Sex	1.00	Male	39.0192	7.3950	54.6859	52
Sex	2.00	Female	40.9474	12.8251	164.4836	38

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 85

INSTRUCTIONAL SKILLS COMPARED TO STATUS

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N (90)
Status	1.00	Administrators	41.1667	12.6728	160.6000	36
Status	2.00	Teachers	40.0500	7.9258	62.8179	40
Status	3.00	Interns	35.7857	6.7388	45.4121	14

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX H

In Appendix H a comparison of the Human Relations skills with age, sex and status was presented. These data were referred to in Chapter IV.

TABLE 86

HUMAN RELATION SKILLS COMPARED TO AGE

Variable for Entire Population	Code	Value Label	Mean 9.0330	Std Dev 3.150	Variance 9.920	N (90)
Age	1.00	Under 21	10.2000	2.7749	7.7000	(5)
Age	2.00	21 to 30	9.5769	3.8593	14.8938	(26)
Age	3.00	31 to 40	8.8235	2.8654	8.2103	(34)
Age	4.00	41 to 50	8.1875	1.9738	3.8958	(16)
Age	5.00	51 and over	9.1111	3.9193	15.3611	(9)

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 87

HUMAN RELATION SKILLS COMPARED TO SEX

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N
			9.0330	3.150	9.920	(90)
Sex	1.00	Male	8.9808	2.7900	7.7839	52
Sex	2.00	Female	9.1053	3.6227	13.1238	38

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 88

HUMAN RELATION SKILLS COMPARED TO STATUS

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N
			9.0330	3.150	9.920	(90)
Status	1.00	Administrators	8.8889	3.4540	11.9302	36
Status	2.00	Teachers	9.3250	3.1328	9.8147	40
Status	3.00	Interns	8.5714	2.4088	5.8022	14

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX I

The following data are a comparison of Planning skills with sex, age, and status, that was mentioned in Chapter IV as having some importance in understanding how different educators scored the specific skills.

TABLE 89

PLANNING SKILLS COMPARED TO AGE

Variable for Entire Population	Code	Value Label	Mean 6.4780	Std Dev 2.089	Variance 4.3650	N (90)
Age	1.00	Under 21	9.0000	2.4495	6.0000	(5)
Age	2.00	21 to 30	7.1538	2.6335	6.9354	(26)
Age	3.00	31 to 40	6.1471	1.3514	1.8262	(34)
Age	4.00	41 to 50	5.4375	1.4592	2.1292	(16)
Age	5.00	51 and over	6.2222	2.0480	4.1944	(9)

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 90

PLANNING SKILLS COMPARED TO SEX

Variable for Entire Population	Code	Value Label	Mean 6.4780	Std Dev 2.089	Variance 4.3650	N (90)
Sex	1.00	Male	6.3269	1.7118	2.9302	52
Sex	2.00	Female	6.6842	2.5267	6.3841	38

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 91

PLANNING SKILLS COMPARED TO STATUS

Variable for Entire Population	Code	Value Label	Mean 6.4780	Std Dev 2.089	Variance 4.3650	N (90)
Status	1.00	Administrators	6.3611	2.4161	5.8373	36
Status	2.00	Teachers	6.3750	1.6747	2.8045	40
Status	3.00	Interns	7.0714	2.3027	5.3022	14

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

APPENDIX J

The Evaluation skills were compared with age, sex, and status. Tables 92, 93, and 94 represent this information.

TABLE 92

EVALUATION SKILLS COMPARED TO AGE

Variable for Entire Population	Code	Value Label	Mean 7.0110	Std Dev 2.246	Variance 5.0450	N (90)
Age	1.00	Under 21	8.6000	2.5100	6.3000	(5)
Age	2.00	21 to 30	6.7308	2.5855	6.6846	(26)
Age	3.00	31 to 40	7.2059	1.8874	3.5624	(34)
Age	4.00	41 to 50	6.5000	2.4495	6.0000	(16)
Age	5.00	51 and over	7.1111	1.9003	3.6111	(9)

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 93

EVALUATION SKILLS COMPARED TO SEX

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N (90)
Sex	1.00	Male	6.8462	1.7644	3.1131	52
Sex	2.00	Female	7.2368	2.7845	7.7532	38
			7.0110	2.246	5.0450	

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

TABLE 94

EVALUATION SKILLS COMPARED TO STATUS

Variable for Entire Population	Code	Value Label	Mean	Std Dev	Variance	N (90)
Status	1.00	Administrators	7.1111	2.4116	5.8159	36
Status	2.00	Teachers	7.0250	2.1778	4.7429	40
Status	3.00	Interns	6.7143	2.1278	4.5275	14
			7.0110	2.246	5.0450	

Total Cases = 90

Source: Computer Program (SPSS Overlay), Ed.

SOURCES CONSULTED

Monographs

Allen, Dwight, and Ryan, Kevin. Micro-Teaching. Reading, Massachusetts: Addison-Wesley Pub. Co., 1969.

Ashlock, R. B. "Microteaching in an Elementary Science Methods Course." School Science and Mathematics, January, 1968, pp. 52-56.

Backstrom, Charles Herbert, and Hursh, Gerald. Survey Research. Evanston, Illinois: Northwestern University Press, 1963.

Benton, Myron. What's Happened to Teacher. New York: Coward McCann, Inc., 1970.

Bloom, Benjamin S. Taxonomy of Educational Objectives Cognitive Domain. New York: David McKay, 1956.

Bowley, Arthur Lyon. Elements of Statistics. London: Staples, 1937.

Burke, Caseel. The Individualized Competency-Based System of Teacher Education at Weber State College. Washington, D.C.: American Association of Colleges for Teacher Education, 1972.

Cooper, J. M. "Developing Specific Teaching Skills Through Micro-Teaching." High School Journal, November, 1967, pp. 80-85.

Corman, Bernard, and Olmstead, Ann. The Internship in the Preparation of Elementary School Teachers. East Lansing, Michigan: Bureau of Educational Research, Michigan State University, 1964.

Dugas, D. G. "Micro-Teaching: A Promising Medium for Teacher Retraining." Modern Language Journal, March, 1967, pp. 161-166.

Gagne, Robert. The Conditions of Learning. New York: Holt, Rinehart & Winston, Inc., 1965.

Good, Carter V., ed. Dictionary of Education. 2nd ed. New York: McGraw-Hill Book Co., 1959.

Gross, R. E., and McCormac, Richard C. "Video Tapes in the Preparation of the Social Studies Teacher." Educational Screen and Audiovisual Guide, September, 1967, pp. 30-31.

Lunney, Gerald. The Construction of Questionnaires for Surveys in Education. Amherst: School of Education, University of Massachusetts, 1965.

Meighan, Roland, and Chambers, Peter. "The Structure of Teacher Education." In The Future of Teacher Education. Edited by J. W. Tibble. London: Routledge and Kegan Paul, 1971.

Michigan State University. Final Report Behavioral Science Elementary Teacher Education Program, Vol. I. East Lansing, Michigan: School of Education, 1968.

_____. Feasibility Study Behavioral Science Teacher Education Program. East Lansing, Michigan: School of Education, 1970.

Oettinger, Anthony. Run, Computer, Run. Cambridge, Mass.: Harvard University Press, 1969.

Sedgwick, L. K., and Misfeldt, H. T. "Micro-Teaching: New Tool for a New Program." Industrial Arts and Vocational Education, June, 1967, pp. 34-35.

Silberman, Charles H. Crisis in the Classroom. New York: Vantage Press, Inc., 1970.

University of Georgia. Summary of Georgia Education Model Specifications for the Preparation of Elementary Teachers. Washington, D.C.: Department of Health Education, 1968.

_____. The Feasibility of the Georgia Educational Model for Teacher Preparation - Elementary, Vol. I. Athens, Georgia: School of Education, 1970.

University of Massachusetts. Model Elementary Teacher Education Program: Final Report. Amherst: School of Education, 1968.

_____. A Feasibility Study on the Model Elementary
        Teacher Education Program Final Report, Vol. I.
        Amherst: School of Education, 1970.

_____. Model Elementary Teacher Education Program,
        Appendix I. Amherst: School of Education, 1970.

Webster's New International Dictionary of the English
        Language. 3rd ed., 1961.

                        Microfiche

ED 043 583   A FEASIBILITY STUDY ON THE MODEL ELEMENTARY
             TEACHER EDUCATION PROGRAM. PHASE II, VOLUME II.
             FINAL REPORT. MASSACHUSETTS UNIV., AMHERST.
             JAN 70. 291 P.

ED 043 582   A FEASIBILITY STUDY ON THE MODEL ELEMENTARY
             TEACHER EDUCATION PROGRAM. PHASE II, VOLUME I.
             FINAL REPORT. MASSACHUSETTS UNIV., AMHERST.
             JAN 70. 338 P.

ED 025 490   A PROPOSED NEW PROGRAM FOR ELEMENTARY TEACHER
             EDUCATION AT THE UNIVERSITY OF MASSACHUSETTS.
             FINAL REPORT. ALLEN. MASSACHUSETTS UNIV., ETC.
             SPONS. AG-OFF. OF EDUC. (DHEW), WASH, D.C., ETC
             BUREAU NO-BR-8-9023. 31 OCT 68 531 P. OEC-0-8-
             089023-3312 (010).

ED 035 608   A GUIDE TO MODEL ELEMENTARY TEACHER EDUCATION
             PROGRAM. COOPER, JAMES M. AM. ASSOC. OF COLL.
             FOR TEACHER ED., WASH., D.C. ERIC CLEARINGHOUSE
             ON TEACHER ED., WASH., D.C. OFF. OF ED. (DHEW),
             WASH., D.C. BUREAU OF RESEARCH. 69. 19 P.

ED 035 606   A GUIDE TO GEORGIA EDUCATIONAL MODEL SPECIFICA-
             TIONS FOR THE PREPARATION OF ELEMENTARY TEACHERS.
             JOHNSON, CHARLES E. AM. ASSOC. OF COLL. FOR
             TEACHER ED., WASH., D.C. ERIC CLEARINGHOUSE ON
             TEACHER ED., WASH., D.C. OFF. OF ED. (DHEW),
             WASH. D.C. BUREAU OF RESEARCH. 69. 41 P.

ED 027 286   BEHAVIORAL SCIENCE ELEMENTARY TEACHER EDUCATION
             PROGRAM. FINAL REPORT. VOLUME II. MICHIGAN STATE
             UNIV., EAST LANSING. SPONS AG.-OFFICE OF ED
             (DHEW), WASH. D.C. BUREAU OF RES. BUREAU NO-BR-
             8-9025. 31 OCT 68 757 P. OEC-0-8-089025-3314
             (010).

ED 027 287   <u>BEHAVIORAL SCIENCE ELEMENTARY TEACHER EDUCATION PROGRAM</u>. FINAL REPORT. VOLUME III SPONS AG. OFFICE OF ED. (DHEW), WASH., D.C. BUREAU OF RES. BUREAU NO-BR-8-9025. 31 OCT 68 591 P. CONTRACT-OEC-0-8-089025-3314 (010).

ED 041 868   <u>FEASIBILITY STUDY. BEHAVIORAL SCIENCE TEACHER EDUCATION PROGRAM</u>. MICHIGAN STATE UNIV., EAST LANSING. DEC 69 426 P.

ED 042 722   <u>THE FEASIBILITY OF THE GEORGIA EDUCATIONAL MODEL FOR TEACHER PREPARATION - ELEMENTARY</u>. VOLUME I, BASIC REPORT. FINAL REPORT. JOHNSON, CHARLES E., ED., SHEARRON, GILBERT F., ED. GEORGIA UNIVERSITY ATHENS. JAN 70. 347 P.

ED 042 728   <u>THE FEASIBILITY OF THE GEORGIA EDUCATIONAL MODEL FOR TEACHER PREPARATION--ELEMENTARY</u>. VOLUME II A AND B. TECHNICAL REPORT. JOHNSON, CHARLES E., ED., AND OTHERS. GEORGIA UNIVERSITY, ATHENS. JAN 70 1, 044P.

ED 042 729   <u>THE FEASIBILITY OF THE GEORGIA EDUCATIONAL MODEL FOR TEACHER PREPARATION--ELEMENTARY</u>. VOLUME III. JOB DESCRIPTIONS. FINAL REPORT. JOHNSON, CHARLES E., ED., AND OTHERS. GEORGIA UNIV., ATHENS. JAN 70. 184P.

ED 035 597   <u>SUMMARY OF BEHAVIORAL SCIENCE ELEMENTARY TEACHER EDUCATION PROGRAM</u>. SUMMARY OF THE FINAL REPORT. MICHIGAN STATE UNIV., EAST LANSING. OFF. OF ED. (DHEW), WASH., D.C. BUREAU OF RESEARCH. OCT 68. 15P.

ED 033 876   <u>SUMMARY OF A PROPOSED NEW PROGRAM FOR ELEMENTARY TEACHER EDUCATION</u>. MASSACHUSETTS UNIV., AMHERST. OFFICE OF EDUCATION (DHEW), WASH., D.C., BR-8-9023. OCT 68, 16P. OEC-0-8-089023-3312 (010).

Brochures

University of Massachusetts, METEP. "Model Teacher Education Program." Amherst, 1972.

Interviews

Interview with Dr. Elliott Williams, Faculty, University of
        Hartford, Connecticut, February 21, 1973.

Interview with Ann Schmer, Staff, METEP, University of
        Massachusetts, School of Education, Amherst,
        Massachusetts, March 1, 1973.

Interview with Dr. Roy Williams, Faculty, Computer Education,
        University of Massachusetts, School of Education,
        Amherst, Massachusetts, March 16, 1973.