THE ATTITUDES OF TEACHERS

TOWARDS TEACHER TRAINING IN THE PROVINCE OF NOVA SCOTIA

A Thesis written in partial fulfillment of the

requirements for the degree of Master of Arts.

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Preface

There has been much discussion in recent years about the quality of teacher training in Nova Scotia and elsewhere. A variety of conferences, seminars, discussions, teach-ins and other gatherings of interested individuals have been held in an attempt to improve courses of training and so ultimately to benefit the pupil in the classroom. While there is no question that those involved in such discussions are genuinely concerned about improvement in this area, discussions which provide a worthwhile airing of problems through a mutual exchange of ideas, there is still evidence that the complexities involved in the training of teachers are not always fully appreciated by the large number of "publics" concerned about the education of children.

It is our contention that there is a very important psychological variable known as an "attitude" which may, to a considerable extent, nullify the effect of teacher training as currently provided, and that if the influence of this variable, "attitude", is not properly understood and taken into account, then it may well result in teacher training being of little or no value. Hence, if a theoretical and applied knowledge of the nature of attitudes are lacking in any attempt to improve teacher training, then those steps taken, of a practical or a mechanical nature, are bound to be shortsighted and ineffectual.

This paper, therefore, attempts to relate the theoretical study of attitudes to the practical problem of improving teacher training.

The study, however, is not designed to be an authoritative look at the theory of attitudes. Rather, its scope is simply limited to pointing out the variety of problems involved in understanding attitudes, and perhaps in so doing, to act as a foundation for further investigation in this field.

The Thesis consists of four chapters, with some concluding remarks. Chapter One is an examination of the theory of attitudes, and presents in brief and summated form the basic ideas of attitude theorists and their areas of agreement and disagreement. Chapter Two discusses the many studies on attitudes as they are related to teacher training. Chapter Three describes the various teacher training programs in the province of Nova Scotia and emphasizes any proposed innovations. Chapter Four presents the attitudes of teachers towards teacher training in the province of Nova Scotia. Because the paper is organized in such a manner that each chapter is built on the framework of the previous one, the work must be looked upon as a unit, and the final chapter concerning the attitudes of Nova Scotia teachers towards teacher training cannot be fully appreciated if Chapters One, Two, and Three, are omitted.

It is our hope that such a presentation will create an aware-ness of a basic factor, though one seldom considered, in the training of teachers, and thus act as a solid foundation for improvements in this area. The study does not answer nearly as many questions as it raises. It simply discusses the possibilities for change, based on widely accepted psychological opinion, and thus attempts to put the

study and improvement of teacher training in the hands of those
who understand its very complex nature.

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CHAPTER I

Attitude Theory

In view of the topic of this study, namely the attitude of teachers toward teacher training in Nova Scotia, it is no doubt appropriate to begin with a look at the meaning and usage of the term "attitude", and then briefly to examine some current theories of attitude, attitude measurement, attitude change and other related topics. This chapter is not intended to be definitive in that it singles out any one definition of an attitude, or singles out one particular theory of attitude structure, attitude measurement or attitude change as being the only theory or definition that can be held. Rather, the aim is eclectic, in presenting a sampling of theories from the various fields of attitude study, for, from an examination of the current diversity of approaches to attitude study, one is left with the impression that there is no universally acceptable explanation of attitudes.

Historical Development of Attitude Studies

The term attitude is a derivative of the Latin word "apto", (to prepare) and in English, has more than one meaning. On the one hand it has

> "...the significance of 'fitness'
> or 'adaptedness', and like its by-
> form "aptitude" connotes a subjective
> or mental state of preparation for
> action. Through its use in the field
> of art, however, the term came to have
> a quite independent meaning; it referred
> to the outward or visible posture (the
> bodily position) of a figure in statuary
> or painting. The first meaning is clear-
> ly preserved in modern psychology in what
> are often referred to as 'mental attitudes';
> and the second meaning in 'motor attitudes'." [1]

The term "attitude" began to enter the field of
psychology in the middle of the nineteenth century, with
the mentalistic viewpoint predating the popularity of the
concept of motor attitudes. Today the adjectives "mental"
and "motor" do not really appear, and the term attitude
retains, at least implicitly, both of the original meanings.

One serious drawback in the early study of
attitudes was the discovery that to a large degree, attitudes
are unconscious, so causing their study to be pushed into a
corner and largely ignored by the experimentalists, although
they were still recognized as playing a crucial part in mental
operations. G. W. Allport claims:

> "It was the influence of Freud, of course,
> that resurrected attitudes from this
> obscurity and endowed them with vitality,
> identifying them with longing, hatred and
> love, with passion and prejudice, in short,
> with the onrushing stream of unconscious life". [2]

1. Gordon W. Allport, "Attitudes", Readings in Attitude Theory
   and Measurement, ed. Martin Fishbein
   (New York: John Wiley & Sons, Inc., 1967) p. 3.

2. Ibid., p.5.

According to Katz and Stotland,[3] the term attitude
has shown remarkable durability, for in the late twenties,
Read Bain and Percival Symonds in their respective articles
"An Attitude on Attitude Research" and "What is an Attitude"
attempted to declare the term anathema to both sociologists
and psychologists, so that although the term has served rather
contradictory functions for a diversity of theoretical approaches,
few have been able to abandon it. Even the behaviorists needed
the concept of attitude "...for flexibility and for the oppor-
tunity of getting inside the head of the robot",[4] while the field
theorists, such as Krech and Crutchfield, needed the concept to
stabilize and rigidify their system and to provide some working
elements out of the field which would be meaningful.

Bain and Symonds were not alone in their attempts to
denigrate the term attitude. Leonard Doob admits that it would
be socially useless to propose that the term attitude be dropped
from social science, since its popularity indicates that it is
serving some sort of social need, a quasi-scientific one.
However, he expresses the hope that the development of behavioral
theory will eventually absorb the term attitude, and says:

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3. Daniel Katz and Ezra Stotland, "A Preliminary Statement to a
   Theory of Attitude Structure and Change," Psychology: A Study
   of a Science, Vol. 111,
   ed. Sigmund Koch (New York: McGraw-Hill, 1959),
   p. 427.

4. Ibid. p. 427.

"The personal guess of the writer is
that the demise of 'attitude' in the
far future will be a happy day for
social science, since this event will
signify the emergence of a more integrated
and scientific system of human behavior". [5]

Despite Doob's dire prediction, the term attitude
seems to have established itself as a permanent fixture in
sociological and psychological writings. During the mid-
Thirties and the years following, there was a proliferation of
studies dealing with frames of reference used in judging, and with
attitude factors in perception and memory. These studies were of
two main types. One type, which tended to link the field of
general psychology with social psychology, focused on the manner
in which social attitudes might function as directive factors in
memory reproduction, while the other type involved experiments
aimed at clarifying the similarities between attitude and certain
cognitive phenomena.

Definition of Attitudes

Although the term and concept of attitude have
attained prominence, especially in the field of social psychology,
a precise definition of the term is not readily available. G. W.
Allport studied more than one hundred definitions of the term
before formulating his own definition.[6] Some psychological writers
have defined general attitudes and social attitudes while others
have contended that there are certain basic characteristics that
are the essential core of all attitudes, whether they are general or
specific in nature. One probable source of confusion with regard to

5. Leonard W. Doob, "The Behavior of Attitude", Psychological
   Review, (May, 1947), p. 155.
6. Vide p. 2. supra.

the various definitions of attitudes is pointed out by Anselm
Strauss in "The Concept of Attitude in Social Psychology"
when he says that much of the research on attitudes has
little or nothing to do with attitude theory, and that the use
of attitude as a common sense, rather than a causal explanation
has retarded systematic understanding. [7]

As mentioned above, Gordon Allport examined over one
hundred definitions of attitude before he presented his own
definition. Below are given a number of definitions of the
term attitude, most of them more recent than Allport's 1935
definition. No attempt has been made here to classify, compare
and contrast all of these definitions, although, in keeping with
the expository nature of this chapter, a few comments will be made
regarding some of these definitions.

G. W. Allport prefixed his definition of attitude by
saying that most of the definitions he had examined failed to
distinguish between attitudes and habits. He also mentioned that
to attempt a definition is to exaggerate the degree of agreement
between psychologists on this topic, but if it leads to greater
agreement in the future, then it is justified. With these introduc-
tory remarks, Allport goes on to say:

> "An attitude is a mental and neural state of
> readiness, organized through experience,
> exerting a directive or dynamic influence
> upon the individual's response to all objects
> and situations with which it is related." [8]

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7. Anselm Strauss, "The Concept of Attitude in Social Psychology",
   Journal of Psychology, 19, (1945) p. 334.

8. Allport, op.cit., p.8.

Louis L. Thurstone was concerned primarily with
the measurement of attitudes; but it is interesting to note
that in 1928 he used as a concept of attitude:

> "...to denote the sum total of a man's
> inclinations and feelings, prejudice or
> bias, preconceived notions, ideas, fears,
> threats, and convictions about any specified
> topic." [9]

In his text, Techniques of Attitude Scale Construc-
tion, Allen L. Edwards assumes Thrustone's 1946 definition of
an attitude as "... the degree of positive or negative affect
associated with some psychological object." [10] In this defin-
ition, the term "affect" is equated with the term "feeling",
while a psychological object may be a phrase, symbol, institu-
tion and so on toward which people can differ in regard to
favorable or unfavorable feelings.

In 1947 Leonard W. Doob, a behaviorist, defined
attitude as "...an implicit, drive producing response considered
socially significant in the individual's society." [11] Doob
presents a rather elaborate break-down of this definition into
its component parts, and analyzes each part in terms of behavioral
theory.

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9. L.L. Thurstone, "Attitudes Can Be Measured.",
   Readings in Attitude Theory and Measurement, ed.
   Martin Fishbein (New York: John Wiley & Sons, Inc.,
   1967), p. 77.

10. Allen L. Edwards, Techniques of Attitude Scale Construction
    (New York: Appleton-Century-Crofts, 1957), p.2.

11. Doob, op. cit., p. 136.

In their text <u>Theory and Problems of Social Psychology</u>, two field theorists, D. Krech and R. Crutchfield, say that:

> "An attitude can be defined as an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world."[12]

In 1950, Donald T. Campbell, attempting to negate the criticism that research on social attitudes lacks a common definition of attitude, and so failing to integrate definition and measurement technique, defined an individual's social attitude as "...a syndrome of response consistency with regard to social objects."[13]

Bert F. Green, in an article "Attitude Measurement", says that attitude, like many psychological variables, is a hypothetical or latent variable, rather than being an immediately observable one. He goes on to define the concept of attitude as "...a consistency among responses to a specified set of stimuli, or social objects."[14] It is interesting to note that for Green, attitude is distinguished from other psychological variables such as habit or drive by the set of social objects that form the reference class of the attitude.

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12. D. Krech and R.S. Crutchfield, <u>Theory and Problems of Social Psychology</u> (New York: McGraw-Hill Book Co., 1948), p. 152.

13. Donald T. Campbell, "The Indirect Assessment of Social Attitudes", <u>Psychological Bulletin</u>, 47, (1950), p. 31.

14. Bert F. Green, "Attitude Measurement", <u>Handbook of Social Psychology</u>, Vol. 1, ed. Gardner Lindzey (Cambridge, Mass., Addison-Wesley, 1954), p.335.

M. Brewster Smith, Jerome S. Bruner, and Robert F. White
define an attitude in terms of its presumed interrelation with
other aspects of personality. They say that

> "...we define an attitude as a predisposition
> to experience a class of objects in certain ways,
> with characteristic affect; to be motivated by
> this class of objects in characteristic ways; and
> to act with respect to these objects in a character-
> istic fashion."[15]

Daniel Katz and Ezra Stotland define an attitude as
"...an individual's tendency or predisposition to evaluate an
object or the symbol of that object in a certain way."[16]
In this definition Katz and Stotland use the term "to evaluate"
to mean to attribute to the object or symbol qualities that can
be placed on a goodness-badness, or desirability-undesirability
scale.

Sherif, Sherif and Nebergall define attitude in terms of
referents, and say that: "Attitudes refer to the stands the
individual upholds and cherishes about objects, issues, persons,
groups, or institutions."[17] These authors also emphasize the
evaluative aspect of attitudes. Thus they define a social attitude

as   "...a set of evaluative categorizations formed
        toward an object or class of objects as the
        individual learns, in interaction with others,
        about his environment, including evaluations of
        other persons."[18]

15. M. Brewster Smith, Jerome S. Bruner, and Robert W. White,
    Opinions and Personality (New York: John Wiley and Sons,
    Inc., 1964), p. 33.
16. Katz and Stotland, opcit., p. 428.
17. Carolyn W. Sherif, Muzafer Sherif and Roger E. Nebergall,
    Attitude and Attitude Change - The Social Judgement -
    Involvement Approach
    (Philadelphia: W.B. Saunders Company, 1965), p. 4.
18. Ibid., p. 20.

Newcomb, Turner and Converse discuss the defin-
ition of attitude from cognitive and motivational points
of view, where cognitively, an attitude involves an
organization of valenced cognitions, while motivationally
it represents a state of readiness for motive arousal.
Thus, they define one's attitude toward something as "...
his predisposition to be motivated in relation to it". [19]

Marvin Shaw and Jack Wright contributed a
definition of attitude to the existing list for the
purpose of integrating many previous definitions, and also
to relate the definition of an attitude more closely to the
operation of attitudes. Their main concern is with the
measurement of attitudes since they contend that to study
attitudes requires that they be measured. Thus they are led
to define the term attitude as:

> "A relatively enduring system of evaluative,
> affective reactions based upon and reflecting
> the evaluative concepts or beliefs which have
> been learned about the characteristics of a
> social object or class of social objects." [20]

Milton Rokeach defines an attitude in terms of
beliefs, saying:

> "An attitude is a relatively enduring organiza-
> tion of beliefs around an object or situation
> predisposing one to respond in some preferential
> manner." [21]

19. T. M. Newcomb, R.H. Turner, and P. E. Converse,
    Social Psychology (New York: Holt, Rinehart and
    Winston, Inc., 1965) p. 40.
20. Marvin E. Shaw and Jack M. Wright, Scales for the
    Measurement of Attitude (New York: McGraw-Hill, 1967) p.3.
21. Milton Rokeach, Beliefs, Attitudes and Values
    (San Francisco: Jossey-Bass Inc. Pub. 1968), p.112.

In this definition, emphasis is placed on the "relatively enduring" nature of the predisposition, in order to distinguish an attitude from the concept of set.

Before discussing some of the salient points of the above definitions, it should be noted that although the various definitions have their own unique characteristics, there is a common thread running through most of them. This point of common agreement is that attitude entails a predisposition to respond to something in a way which is a fairly stable characteristic of that person's behaviors. Although there are writers such as Doob who regard attitudes as being responses, rather than as predispositions to respond, the more common agreement is that the essential feature of an attitude is the predisposition, or readiness, or preparation for response. Thus, there is general agreement that attitude is not behavior, but rather is an element of behavior.

Habits, Sets, Values, Beliefs and Opinions

It was previously mentioned, (p. 5) that Gordon Allport criticized existing definitions of attitude for failing to differentiate between "attitude" and "habit". While there are a variety of words that are used by various writers as being interchangable with the term "attitude", there are, on the other hand, writers who insist on a clear delineation of terms. In order to clarify this distinction, some of these terms, such as trait, habit, set, opinion, belief, values and motive will be briefly

examined in view of some of the preceeding definitions.

From Allport's point of view, attitude and habit differ in that attitudes are often very general, while habits are characterized by their limited range of activity.

A different stand by B. F. Green claims that the set of social objects forming the reference class of the attitude tends to distinguish attitude from other psychological concepts, and thus it is of secondary importance whether the particular variable is called an attitude, a trait, or a habit, since "the operational definition will always be in terms of the referent class of stimuli." [22]

Milton Rokeach differentiates between the concepts of attitude and set on the basis of their endurance, where "set" is used to describe a momentary predisposition while "attitudes" are more enduring predispositions. Shaw and Wright,[23] on the other hand, differentiate between attitudes and the constructs of set, habit and trait on several bases. They describe attitudes as being rational, having specific referents, possessing evaluative functions, and serving as predispositions to overt responses. Although set emphasizes motor readiness, and habit also indicates an action tendency, neither of these terms reflects an affective or evaluative reaction. Although traits may be relatively stable and consistent dispositions to respond in a certain way, they do not have specific referents, as do attitudes. The authors also

22. Green, op. cit., p. 336.
23. Shaw and Wright, op. cit., pp. 4-6.

differentiate between attitudes and motives in that attitudes
are considered to be _object_ specific, while motives are _goal_
specific.

The term "value" is difficult to define precisely,
but it can be defined rather loosely as being the degree of
worth ascribed to an activity or an object. Rokeach claims
that the concept of value has at least three distinct meanings. [24]
To some, it is a sociological concept, which is or may be an
object of activity; to others it seems to be synonymous with
attitude since the attitude object has cathexis, while in
Rokeach's view, a value, like an attitude, is a disposition
of a person, but is more basic than an attitude, and often
underlies an attitude.

There have been a variety of definitions proposed
for the term "belief". Basically, the term involves some level
of acceptance of some proposition regarding an object or event.
In Rokeach's definition of an attitude, beliefs were included
as elemental parts of an attitude. Beliefs, in his view, can
be classified as descriptive, evaluative or prescriptive, but
the key point is that "...all beliefs are predispositions to
action..." [25] Shaw and Wright tend to adopt Rokeach's definition
of belief, but go on to say that:

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24. Rokeach, _op. cit._, p. 124.

25. Rokeach, _op. cit._, p. 113.

> "...a belief becomes an attitude when it is
> accompanied by an affective component which
> reflects the evaluation of the preferability
> of the characteristics or existence of the
> object. The attitude would be the sum of
> such beliefs about the object."[26]

"Opinion" is described as being similar to both

attitude and belief by some writers.[27] The general trend,

however, is to deny to opinion the affective reaction

typifying attitudes. Carl Hovland and his colleagues point

out that opinions must be verbalized, whereas attitudes may

be unconscious. Also, attitudes are generally viewed as pre-

dispositions to respond, while opinions are responses.

It is interesting to note that Smith, Bruner and

White are not particularly concerned with whether one uses the

word "attitude" or "opinion" to denote the phenomenon described

in their definition of attitude.[28] Sherif and Cantril apply

the term "opinion" to describe an attitude that is or has been

expressed, and which is based mainly on objective conditions.

Attitudes are Learned

Another point of common agreement among students of

attitudes is that attitudes are learned. However, even within

this area there has been some disagreement as to the role which

learning plays.

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26. Shaw and Wright, op. cit., p. 4.

27. See, for example, Shaw and Wright, Scales for the Measure-
    ment of Attitudes, and Smith, Bruner and White, Opinions
    and Personality.

28. Smith, Bruner and White, op. cit., p. 33.

Sherif and Cantril aroused the ire of Doob and others
by claiming in connection with their discussion of the psychology
of attitudes:

> "Just what the psychological or physiological
> mechanisms of this learning may be are irrel-
> event to the present discussion."[29]

It should be noted, however, that the basis for the
assumption that attitudes are learned is that attitudes are
generally defined as predispositions to respond to some object
or stimulus. Thus, attitudes cannot be innate but must be
formed as a result of one's contact with his environment.
Sherif and Cantril made their preceeding statement on the assump-
tion that no matter what course learning theory takes in the
future, the results will not negate the fact that attitudes
are formed. They do, however, express the view that further
developments in learning theory will most probably lead to an
increase in the knowledge of how attitudes are formed.

In his rather exhaustive analysis of a definition of
an attitude, Leonard Doob became quite incensed at Sherif and
Cantril's approach to learning theory. The learning process
is of central importance to Doob, since only through knowing
the approximate conditions under which a particular attitude
was initially acquired, and the extent to which it can gain
present and future reinforcement, can an investigation hope to
determine an attitude's strength, the overt responses with which
it has become associated, or its present functioning within the

29. Muzafer Sherif and Hadley Cantril, "The Psychology of 'Atti-
   tudes'," Part 1, The Psychological Review, 52 (1945), p.302.

individual's personality. Thus Doob wrote, concerning the learning process:

> "The nature of that process cannot be ignored in a treatise on attitude as it has been by Sherif and Cantril...it is difficult to see how psychologists can call these mechanisms 'irrelevant' and still contend, as the authors do in the introduction to the same articles, that the 'task' of the psychologist is to 'give an adequate account of the psychological mechanisms involved in the formation of an attitude in any individual'."[30]

Isidor Chein in turn, takes Doob to task for his attack on Sherif and Cantril. Chein's main criticism of Doob's position is that it does not sufficiently account for creative cognitive processes. Chein is thus led to describe the relation of learning to attitude, where the residues of past learning effect, to some extent, the way a given object or situation is perceived, with what the person wants in that situation or with regard to that object. So, what the person wants plays a role in determining which attitudes will be generated, and the key point Chein makes is that what the person wants in a situation, and how he perceives the situation, is more important than the bare fact that learning has taken place previously.

Chein points out some common areas of agreement between Doob's conception of attitude and his own that perhaps bear presentation here:

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30. Doob, op. cit. p. 138.

"...(1) a person is not born with his attitudes,
(2) the learning process plays a major role in
the development of attitudes, (3) attitudes
involve problems of perception and motivation,
(4) as a result of a particular attitude a
person may be more likely to perceive certain
objects than others, (5) some attitudes affect
perception after their arousal even though
they may not have oriented the person originally
in the direction of the perceived objects, (6)
specific behavior cannot be safely predicted
from a knowledge of attitude alone, and (7)
people may act contrary to their attitudes". [31]

As was previously mentioned, behavior theory follows

a particular model of the learning process, that of stimulus-

response. In view of the common thread running through most

definitions of attitude, that an attitude is a predisposition to

respond, or to evaluate, or whatever, the stimulus-response

model seems to be appropriate for attitude study. This does

not, however, preclude other theories of learning from having

an effect on attitude formation. However, more elaborate

discussion of learning processes is beyond the scope of this

present study. The main point to be emphasized is that attitudes

are learned, and there is no doubt that this learning begins in

childhood, laying the foundations for those attitudes which will

later have a considerable influence on that person's life. Thus,

on the one hand, there are attitudes which are built up over a

period of time, while on the other hand, research has presented

some evidence which indicates that a startling or traumatic

experience can have lasting effects on a person's attitude. [32]

31. Isidor Chein, "Behavior Theory and the Behavior of Attitudes",
    Readings in Attitude Theory and Measurement, ed. Martin
    Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 52.
32. Frederick J. McDonald lists a number of research efforts on
    this point in Educational Psychology (2nd ed., Belmont,
    California: Wadsworth Publishing Company, Inc., 1965, p. 310.

Both of these types of attitude, if they can be called types, have implications for this present study of the attitudes of teachers toward teacher training. In their early stages, the attitudes may not be very strong, but through discrimination and generalization, a person's value system develops. As attitudes form, they tend to influence the manner in which objects and situations are perceived, giving rise to selective perception, which, in turn, leads to reinforcement of the attitude, thus affecting the intensity of the attitude.

Applying this approach to the present study, one could say that before a child attends school, he probably has no strong attitudes toward school. [33] However, when he enters school he comes in contact with teachers and schooling in general. Thus his experiences begin to influence his pre-conceptions about school and about teachers. As he progresses through school, he eventually, through discrimination and generalization, reaches the stage where he has developed a definite attitude about school and about teachers. The time element involved here is not specified. Neither is it specified whether the attitude is positive or negative, favorable or unfavorable. These things are not specified, intentionally, for the process of attitude acquisition can be quite complex. The reason this relatively early formation of attitudes concerning school and teachers is mentioned is that attitudes, as we have

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33. It should be noted, however, that the child probably has formed some conceptions about school and teachers through parental influence. Reference to this point is made in the following chapter.

noted, when formed, tend to influence the way in which objects
and situations are subsequently perceived. It is clear, there-
fore, that once once a child has formed an attitude about school
and teachers, that attitude will influence all his perceptions
of the school situation and all the meanings he gives to that
situation. What is not so clear, but which we hope to show, is
that these same attitudesinfluence the teacher, when that child
in fact becomes a teacher. Indeed, it is not too much to say,
though this is not the subject of the present study, that these
attitudes influence the tax-paying public when the children reach
that stage of life and also governs their behavior in relation
to paying taxes for education. In the section of this chapter
dealing with attitude change, it is mentioned that in general,
attitudes are quite difficult to alter once they have been formed.
Thus, people entering teacher training will presumably have formed
attitudes toward teachers and toward schooling, attitudes which
will affect a considerable part of their perception of the
program of training.

Components of Attitudes

Since attitudes are typically defined as predispositions
to respond in a particular manner toward specified objects or
situations, attitudes are not directly observable or measurable,
but rather, must be inferred reactions to particular stimuli.
According to Rosenberg and Hovland,

"The types of response that are commonly used as 'indices' of attitude fall into three major categories: cognitive, affective, and behavioral".[34]

The relationship between these three major components of attitude, as well as the factors that increase or decrease the correlations among them, have presented major problems in attitude theory and measurement. Note that these are not the only components of attitudes, but they are considered to be the major ones. Before continuing with a brief description of the affective, cognitive and behavioral aspects of attitudes, a schematic conception of attitudes is presented below.

Schematic Conception of Attitudes [35]

Measurable independent variables	Intervening variables	Measurable dependent variables

- Affect → Sympathetic nervous responses. Verbal statements of affect.
- Stimuli (individuals, situations, social issues, social groups, and other "attitude objects". → Attitudes
- Cognition → Perceptual responses. Verbal statements of beliefs.
- Behavior → Overt reactions. Verbal statements concerning behavior

34. Carl I. Hovland and Milton J. Rosenberg (ed.) *Attitude Organization and Change* (New Haven: Yale University Press, 1960), p. 1.

35. Schematic diagram adapted from Hovland and Rosenberg, *Ibid.*, p. 3.

It should be noted that these three response classes are abstractions or constructs, and are themselves inferred from the types of response indicated under the heading 'Measurable dependent variables'. [36] Katz and Stotland include the term "evaluate" in their definition of attitude. Evaluation, in the sense in which these authors use it, must always include cognitive and affective elements, components which may be present in varying amounts. In some cases, the amount of cognitive element may be just sufficient to give recognition to the attitude object and relate it to some evaluative standard. On the other hand, in some cases the cognitive element may be much more elaborate. A behavioral component may also be present where

> "The behavioral component refers to an
> action tendency toward the object of
> the attitude in addition to the
> expression of affect about it". [37]

The following is a brief summary of Katz and Stotland's description of the affective, cognitive and behavioral components of attitudes. Their description of these components are representative of those of most other writers on this topic. It should be noted that their components do not exist in isolation from one another.

36. For a further discussion of these measurable responses, the reader is referred to Rosenberg and Hovland, op. cit.

37. Katz and Stotland, op. cit., p. 429.

The central aspect of the attitude is the affective component, for it is most closely related to the evaluation of the attitude object. In this case, the cognitive element must be present in order that the object be identified, but it is the effective component which distinguishes between attitudinal evaluation on the intellectual appraisal. The affective component involves the attribution of good or bad, favorable or unfavorable, qualities to some particular object. The affective loading of an attitude may vary in intensity from one object or situation to another. This affective loading can present some problems in attitude measurement in the extreme cases of low and high affective loading.[38]

The cognitive component of some attitudes may be quite low owing to the fact that there are few beliefs about the attitudinal object and its relation to the individual or his environment. A person may evaluate an object in a certain manner without knowing very much about the object. An example of this would be a person's prejudice toward some minority group, although their actual knowledge about this particular group may be very limited. It was previously mentioned that a child entering

38. For a discussion of some of these problems see E. R. Carlson, "Attitude Change Through Modification of Attitude Structure", Journal of Abnormal and Social Psychology, 52 (1956), pp. 256-261; C.I. Hovland, O.J. Harvey, and M. Sherif, "Assimilation and Contract Effects in Reactions to Communication and Attitude Change", Journal of Abnormal and Social Psychology, 55, (1957), pp. 244-252; and H.H. Kelley and E.H. Volkart, "The Resistance to Change of Group-Anchored Attitudes", American Sociological Review, 17, (1952) pp. 453-465.

school may or may not have formed strong attitudes toward
teachers or school. The strength of the attitude at this stage
can be a direct effect of the attitudes of the child's parents,
which may have been incorporated by the child, and this, in
turn, may affect the way the child perceives teachers and
school when he is in direct contact with them. On this point,
Sherif and Cantril say that it is the perceptual stage "...which
begins to give an attitude its cognitive component in the
process of formation".[39] This point is discussed further in
Chapter Two of this work.

This cognitive component can be described according to
three characteristics which may be considered to be basic: the
degree of differentiation; the degree of integration; and the
generality or specificity of the beliefs. The first refers to
the number of cognitive elements, or beliefs, while the second
refers to the hierarchial organization of these elements.

The behavioral component deals with the manner in which
the individual reacts, overtly and/or verbally toward the object
or situation. This behavioral component is of particular interest
in that the manner in which an individual reacts and how he says he
will react to a particular stimulus may appear to be quite incon-
sistent. However, it would not be valid to say that an individual
is acting contrary to his attitude. It may be that the individual
was not being truthful when he verbalized how he would react to

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39. Sherif and Cantril, op. cit., p. 303.

the particular stimulus. On the other hand, it may be that when the stimulus is given there are other factors also influencing him, such as group pressures, or other stimuli which invoke other attitudes that are more intense than the one under consideration.

Not all writers subscribe to the three component nature of attitudes. Shaw and Wright contend that the term "attitude" applies only to the positive-negative dimension of the motive-producing affective reaction. The motive which is elicited is a consequence of the attitude rather than part of the attitude. They admit that although they are intimately connected to attitudes, the propositions that the individual accepts about the object and the action tendencies, are not parts of the attitude itself.

Rokeach points out that many writers describe the relationship between these three major attitude components so closely that in experimental research, one component is very difficult, if not impossible, to isolate and manipulate independently from the other components. A common assumption of researchers investigating these components of attitudes, using concepts such as balance, harmony, congruity and dissonance, is that

"...man strives to maintain consistency among the cognitive, affective, and behavioral compon- ents within a single belief, among two or more related beliefs, and among all the beliefs and attitudes entering into a total system of beliefs." [40]

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40. Rokeach, op. cit., p. 114.

This consistency principle is expressed as a
tendency to achieve a logical correspondence between the
attitude components. It would perhaps be useful at this point
to digress for a brief discussion of attitudes and value systems.

In social psychology, attitudes have often been used
as units for the analysis of social phenomena. Individual
attitudes have their own referents, but these individual
attitudes may also be organized into a larger attitudinal
structure or frame of reference. This structure or frame may be
referred to as a value system, and the individual attitudes can
be organized around some central conceptual theme. Within a
particular value system individual attitudes retain their
identity. Also, one attitude can have a place in several value
systems. Katz and Stotland claim[41] that one important character-
istic of an attitude is the degree to which it is attached to
a particular value system. Attitudes can range from having no
ties with a value system to those which are thoroughly embedded
in one. Another important characteristic is the number of value
systems to which an attitude is linked.

Getting back to the discussion of consistency,

> "This trend toward consistency exists in its strongest
> form within the confines of a single attitude; there it
> seeks to make the components of the attitude congruent
> with one another. Inconsistencies can exist between
> attitudes more readily than between the components of
> a single attitude".[42]

41. Katz and Stotland, op. cit., p. 433.
42. Ibid., p. 444.

The reasons for this would appear to be that all the components of a single attitude are tied to the same object. The trend for consistency should also manifest itself within the confines of a value system, since the individual attitudes are focused about some central theme or anchor.

Characteristics of Attitudes

In order to differentiate attitudes from other related concepts, some writers in this field have described what they consider to be the essential characteristics of attitudes. In their article, "The Psychology of Attitudes", Muzafer Sherif and Hadley Cantril say that, whatever else they may have, all attitudes have in common a state of readiness. To avoid the generalization that all states of readiness are attitudes, they specify five criteria [43] which are found in cases of readiness which can be called attitudes.

The first is that attitudes always imply a subject-object relationship. There is a definite relationship of the attitude to particular stimuli or stimulus situations. Secondly, attitudes are formed, and this formation involves objects, persons and values. The primary stage in the formation is a perceptual one. A third criterion which a state of readiness must possess to be an attitude is that it must have affective properties. This affective property may be due to instinctual or non-instinctual origins. A fourth characteristic is that attitudes are more or less

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43. Sherif and Cantril, op. cit., pp. 301-304.

enduring states of readiness. The enduring nature of the state

of readiness of an attitude is established because of the cog-

nitive components in its formation. A fifth characteristic is

that attitudes range in the number and variety of stimuli to

which they are referred.

In their discussion of the criteria which are

essential to attitudes, Sherif and Cantril emphasize that these

criteria refer to all attitudes, not just "social" attitudes.

Thus, they say:

> "The point is that all attitudes - whether
> social or non-social, whether verbalized or
> non-verbalized - function essentually accord-
> ing to the same psychological principles,
> even though there may be differences of
> content, richness, compellingness, or endurance." [44]

Shaw and Wright contribute further to the field of

attitude study by integrating the work of a number of writers

and formulating six general characteristics which attitudes

possess, in addition to their predisposition to respond. These

six general characteristics are as follows: [45]

1. Attitudes are based upon evaluative concepts regarding

characteristics of the referent object and give rise to motivated

behavior.

2. Attitudes are construed as varying in quality and intensity

(or strength) on a continuum from positive through neutral to

negative.

3. Attitudes are learned, rather than being innate or a result of

constitutional development and maturation.

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44. Sherif and Cantril, op. cit., p. 305.
45. Shaw and Wright, op. cit., pp. 6-9.

4. Attitudes have specific social referents, or specific classes
thereof.

5. Attitudes possess varying degrees of interrelatedness to one
another.

6. Attitudes are relatively stable and enduring. Characteristically,
attitudes provoke some type of behavior, and thus some writers have
attempted to classify attitudes. Gordon Allport summarized the major
varieties of classification as: positive and negative; specific
and general; public and private; common and individual attitudes.
He also says that

> "An attitude characteristically provokes behavior
> that is acquisitive, or avertive, favorable or
> unfavorable, affirmative or negative...This double
> polarity in the direction of attitudes is often
> regarded as their most distinctive feature."[46]

Many writers classify attitudes as being either positive
or negative, as most attitudes fit quite easily into these categories.
However, problems arise when an attempt is made to place a detached
or impersonal attitude, or an attitude of neutrality into one of
these categories.

In "The Psychology of Attitudes", Sherif and Cantril
claim that their approach to attitudes renders meaningless any
attempt to classify them. They contend that the situation or situa-
tions or circumstances under which the attitude has developed, and
the function the attitude serves for the individual will cause the
characteristics of any attitudes in the individual to vary, and thus

> "...any classification of attitudes becomes
> almost as nebulous as any classification of

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46. Allport, op. cit., p.8.

                stimulus situations (including objects,
                persons, groups, values and norms) or of
                personal and societal relationships.
                Simple, dichotomous classifications
                especially distort and falsify the problem" [47]

Function of Attitudes

Some writers espouse a functional approach to the study

of attitudes. The argument presented in favor of this approach

is that in order to predict attitude change, one must have know-

ledge of the motivational basis of the attitude. Thus, through

the functional approach an attempt is made to understand why a

person holds a particular attitude. Daniel Katz seems to be the

leader in this field of study. The four functions that attitudes

perform for the personality, in the terminology of Katz,[48] are -

(1) the instrumental, adjustive or utilitarian function, (2)

the ego-defensive function, (3) the value expressive function

and (4) the knowledge function. These functions of attitude are

grouped according to their motivational basis.

The adjustive function is essentially a recognition

that people strive to maximize the rewards in their environment

and minimize the penalties. Thus attitudes acquired in this

function are either the means for reaching desired goals or

avoiding undesirable ones. Past or present perceptions of the

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47. Sherif and Cantril, loc. cit.

48. Daniel Katz, "The Functional Approach to the Study of
    Attitudes", Readings in Attitude Theory and Measurement
    ed. Martin Fishbein (New York; John Wiley & Sons, Inc. 1967)
    p. 461.

utility of the attitudinal object for the individual influence
the dynamics of attitude formation with respect to this adjustive
function. Since attitudes and habits are formed toward specific
objects and object symbols as they satisfy specific needs, the
closer these objects are to the actual needs, and the more closely
they are perceived as relevant to need satisfaction, the greater
the chance that positive attitudes will be formed.

The ego-defensive function of attitude serves to protect
a person's self-image. A great deal of energy is expended by
people in order that they may live with themselves. There are
various mechanisms of ego-defense through which an individual can
protect his ego from his own unacceptable impulses, and from the
knowledge of external threats. A detailed examination of these
defense mechanisms will not be presented here. [49]

Defensive attitudes are formed in a different way from
attitudes which serve the adjustive function. These attitudes
proceed from within the person, and the attitude objects and
situations to which they are attached serve merely as outlets for
their expression. The attitude "...is not created by the target
but by the individual's emotional conflicts." [50] It should be noted
that when no convenient target exists, the individual will create
one. On the other hand, adjustive attitudes are formed with a
specific reference to the nature of the attitudinal object.

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49. A detailed account of the origin and nature of ego defense mechanisms
    can be found in Percival M. Symonds' _Dynamic Psychology_, New York:
    Appleton-Century-Crofts, 1949.

50. Katz, _op. cit._, p. 462.

The value-expressive function of attitudes serves to give positive expression to a person's central values and to the type of person he feels that he is. Thus a person may express attitudes which reflect his self-image and his cherished beliefs. These attitudes tend to clarify a person's self-image, and to mold the self-image closer to what the person wants it to be. The basic outlines for the individual's self concept are set by the socialization process during his formative years. When an individual enters a new group or organization, a related but somewhat different process from childhood socialization takes place, and often the individual will take over and internalize the values of the group. There seems to be four operative factors involved, and some combination of them are required for internalization to take place. These four factors are:[51] (1) the values of the new group may be highly consistent with existing values central to the personality; (2) The new group may in its ideology have a clear model of what the good group member should be like and may persistently indoctrinate group members in these terms; (3) The activities of the group in moving toward its goal permit the individual genuine opportunity for participation; and (4) the individual may come to see himself as a group member if he can share in the rewards of group activity which includes his own efforts.

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51. Ibid., pp. 463-464.

The fourth function of attitude mentioned is the know-
ledge function. Individuals acquire beliefs in order to satisfy
various specific needs. They also seek knowledge in order to be
able to make meaningful to them what would otherwise be a chaotic
environment. Attitudes thus can help to provide standards or
frames of reference so that people can understand their world.

Smith, Bruner and White present a framework of attitude
functions that is somewhat similar to that of Katz. However,
they use three functional determinants in their work. These
three are object appraisal, social adjustment and externalizations.
The function of an attitude or opinion is a compromise between
these determinants.

"To the extent that object appraisal predominates,
the person tends to react rationally, according to the
information at his disposal...

"To the extent that a person's attitudes are
primarily rooted in his social adjustments, he is
less oriented toward the facts than toward what
others think...

"To the extent that a person's attitudes serve to
externalize inner problems, and are therefore embedded
in his defenses against obscure and unresolved tensions,
we may expect them to be rigid and not particularly
amenable either to reason and fact or to simple social
manipulation..."[52]

In terms of the object appraisal function, an individual's
interests and values stand to be advanced by flexibility on his part
in the assimilation of the implications of new facts. It has been

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52. Smith, Bruner and White, op.cit., pp. 277-278.

suggested that attitudes rooted in one's social adjustment can in
most cases be affected by propaganda. However, to successfully
alter a person's attitude on this basis, consideration must also
be given to the revision of the person's object appraisal.
Reassurance and permissiveness seem to be the required conditions
to best effect a change in attitude serving the externalization
function. Smith, Bruner and White contend that an opinion or
attitude can favor one function over the others, but all functions
are served to some degree by an opinion.

H. C. Kelman [53] also takes a functional approach to
attitudes. His approach is somewhat similar to those mentioned
above. However, he specifies the functional basis in terms of
antecedent social influence conditions as well as in terms of motive.
The three processes of social influence distinguished by Kelman are
compliance, identification and internalization, and each of these
processes theoretically leads to a different type of attitude.

To summarize these processes: compliance takes place
when influence from another person or group is accepted by the indiv-
idual with the hope of gaining some reward or avoiding some punish-
ment that this person or group controls; identification occurs when
another person's or group's opinions are adopted by the individual
because these opinions are associated with a satisfying and self-

53. Herbert C. Kelman, "Compliance, Identification and Internalization:
Three Processes of Attitude Change," Journal of Conflict Resolution,
2 (1958), pp. 51-60.

defining, or role, relationship with this person or group; and
internalization takes place when an opinion is accepted because
it is congruent with the individual's value system. These are
not mutually exclusive processes, and most opinions are a function
of some combination of these processes.

Attitude Measurement

G. W. Allport pointed out [54] that the proliferation of
the use of statistical methods in the social sciences has led to
the situation whereby attitudes are measured more successfully
than they are defined. This observation, however, was made in
the face of the problem of defining attitudes, not measuring them.

There are many problems encountered in attempting to
measure attitudes, owing generally to the nature of attitudes
themselves. One of the main problems is that an attitude is a
mental construct and is not readily available to physical measur-
ing devices. Rather, we infer an attitude from an individual's
behavior, his words and deeds. Thus, Sherif, Sherif and Nebergall
say that attitudes are "...inferred from characteristic or consistent
patterns of behavior toward objects, or, more usually, classes of
objects." [55] Another difficulty involves the term "measurement"
itself. B. F. Green, in agreement with other writers, points out
that measurement is "...the assigning of numerals to objects, events,
or persons, according to rules." [56] The key phrase here is "accord-

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54. Allport, op. cit., p. 9.
55. Sherif, Sherif, and Nebergall, op. cit., p. 19.
56. Green, op. cit., p. 337.

ing to rules", for to assign a numeral to a "predisposition" without specifying the rules would be meaningless. It should also be mentioned at this point that attitude measurement involves psychological measurement, which is not necessarily equivalent to physical measurement.

However, as Thurstone points out, "The linear continuum which is implied in all measurement is always an abstraction."[57]A unit of measurement is not a thing. Rather, it is a process of some sort which can be repeated without modification throughout the measurement continuum. An attitude is a complex affair, and a single numerical index cannot wholly describe it. Thurstone compares attitude measurement with the measurement of a table, where the table is not wholly described by a single numerical index either. However, inasmuch as one can measure a table within some context, one can also measure attitudes, again with contextual specification. The important thing to note is that attitudes can be measured. The accuracy of the measurements is another topic of discussion.

B. F. Green describes an "attitude universe" as being the set of behaviors comprising an attitude. This idea of a universe was developed by Guttman in connection with his attitude scaling method. The responses to specific situations are the elements of the attitude universe, and a sample of these elements

57. L. L. Thurstone, "The Measurement of Social Attitudes," Readings in Attitude Theory and Measurement, ed. Martin Fishbein (New York: John Wiley & Sons, Inc., 1967) p. 20.

is used to measure the attitude. Thus from a sample of behavior,
an inference is made about the entire universe. The concept
involved here is that attitude measurement involves sampling
a behavior universe, and also a measurement of the universe by
means of the sample. Thus an adequate attitude measurement
involves taking a representative sample of elements. Green
cautions:

> "If only a small subset of the total attitude
> universe is sampled, then inference beyond
> this subset is not legitimate...it is very
> important not to overgeneralize."[58]

Green defined attitude as a latent variable on the
basis that its meaning is a covariation of responses, in an
attitude universe. The problem of precisely defining an
attitude, at least for Green, entered around finding an appropriate
mathematical model relating the observed variables to the latent
variables. Such a model is either stated or implied by each
psychological scaling method. Thus Green concludes that the
problem of measuring an attitude is that of selecting a scaling
model whereby the response data and the attitude variable can be
related.

A frequently used method of measuring attitudes requires
that subjects indicate their agreement or disagreement with certain
statements concerning the attitude object. The Thurstone method
of scale construction involves scaling the statements for the
degree to which the statements express a favorable or unfavorable

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58. For a discussion of "attitude universe" see Louis Guttman's
    "A Basis for Scaling Qualitative Data, "Readings in Attitutde
    Theory and Measurement, ed. Martin Fishbein (New York: John
    Wiley & Sons, Inc. 1967) p. 98.

attitude. In other methods, items expressing positively or
negatively evaluative propositions regarding the object are
written. Thus, a typical attitude scale measures the acceptance
of evaluative statements about the attitude object.

Although some writers, such as Green, use the term
attitude scale to refer to the set of scores obtained from a
set of items, [59] others, such as Shaw and Wright"...refer to a
set of items, along with the item scores, as an attitude scale..."[60]
Different scaling methods have different properties, and the
usefulness of an attitude scale depends upon these properties.

Sherif, Sherif and Nebergall propose a set of minimum
requirements for an adequate attitude assessment technique. These
are:

1. Indicators of the range of positions toward
   the object of the attitude that is encompassed
   by the individual's evaluative categories
   (acceptable or objectionable, in some degree.)

2. Indicators of the degree of the individual's
   personal commitment to his own stand toward
   the object; that is, of the degree of his
   ego involvement with the issue.

3. Ways and means to ensure that the individual
   responds in terms of his attitude toward the
   object rather than with what he thinks the
   investigator or other persons conceive as a
   socially desirable response.[61]

There are three main concepts which should be defined for

purposes of attitude assessment in keeping with the above mentioned

59. Green, op. cit. 336.
60. Shaw and Wright, op. cit., p. 15.
61. Sherif, Sherif and Nebergall, op. cit., pp. 20-21 .

requirements. These are latitude of acceptance, latitude of
rejection, and latitude of noncommitment. The latitude of
acceptance refers to the position on an issue that is most
acceptable, plus other acceptable positions. The latitude of
rejection refers to the most objectionable position on the same
issue, along with other objectionable positions. The latitude
of noncommitment refers to positions not categorized as either
objectionable or acceptable in some degree.

Certain assumptions are necessary in order to assess
latitude of acceptance, rejection and noncommitment. The first
is that there must be at least two alternatives in the set of
positions. Secondly, within the domain, the clear alternatives
should be ranked in the same order when the ranking dimension
is simply degree of favorableness toward one or the other extreme.
Thirdly, the individual must be free to determine for himself the
number of positions he either accepts, rejects, or toward which
he remains noncommitted.

Other writers present different minimum requirements
for a useful attitude scale. Shaw and Wright [62] list two necessary
properties, reliability and validity, along with other desirable
characteristics including equality of units, unidimensionality,
and a zero point. An attitude scale is reliable if it yields
consistent results when the attitude is measured a number of times.

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62. Shaw and Wright, op. cit., p. 16.

There are three empirical methods generally used for estimating the reliability of an attitude scale. The test-retest method involves correlating the scores on the same test given at different times. The equivalent-forms method involves the correlation between two comparable forms of the same scale. The split-half method involves the correlation between comparable parts on the same scale.

Validity is also a complicated concept. However, an attitude scale is considered to be valid if it measures what it is supposed to measure. Four general procedures for estimating the validity of psychological tests are: predictive validity, concurrent validity, content validity, and construct validity.

Predictive validity and concurrent validity are somewhat related procedures. The former is estimated by showing how accurately future performance on an external criterion can be predicted from a knowledge of the attitude score. Concurrent validity differs from this primarily with regard to the time at which the criterion measurement is obtained. If the attitude scale and criterion measure are administered at approximately the same time, the procedure is called concurrent validation.

Content validity is evaluated by determining the degree to which the content of the attitude scale corresponds to the content of the attitude system. The notion of construct validity is more complex than the other types of validity. Basically it is evaluated by determining the relationships between the attitude

score and other aspects of the personality. A more detailed
description of the methods involved in evaluating construct
validity is given by Shaw and Wright. [63]

Equality of units merely means that the scale units
are equal. This is not realized by many attitude scales. An
attitude scale is unidimensional if it measures a single
attitude. Multidimensional scales are used in some cases, but
these scales are useful only to the extent that the contributions
each attitude makes to the total score are known and separable.
An attitude scale usually ranges from positive to negative.
The zero point is the point where the change from positive to
negative occurs.

Some students of attitude measurement have found it
convenient to divide classification procedures into levels of
measurement

> "...according to the number and stringency of
> requirements that any given measurement
> procedure may be said to satisfy and hence the
> number and precision of the statements that [64]
> may be made about elements so measured."

In general, four levels are distinguished. They are,
listed in ascending order: the nominal, ordinal, interval, and
ratio levels. Measurements satisfying the higher level automatically
satisfy the requirements of the levels below it.

In the nominal classification, elements are sorted

63. Shaw and Wright, op. cit., pp. 18-20.

64. Newcomb, Turner and Converse, op.cit., p. 501.

into classes, and a number is assigned to each class. The
numbers do not signify any relationship between the classes,
but merely serve to distinguish one class from another.

On the ordinal level, some underlying dimensions
of variability along which objects are being compared is
assumed. There does not have to be clear units marking off
equal divisions of the dimension being measured, but the
classes of objects are ordered on a "greater than" or "less
than" basis.

On the interval level, there are clear units of
measurement. However, even with these units, one cannot make
statements about objects that consider their measures as
ratios. A statement about objects considering their measures
as ratios requires that there be equal units, and also that a
zero point exists, where there is a total absence of whatever
property is being measured.

A variety of techniques for attitude scale construc-
tion have been developed. A brief description of some of these
techniques will be given below. [65]

The method of equal-appearing intervals was developed
by L. L. Thurstone in 1929, and has been widely used in the

65. For a more elaborate discussion of this topic, one is
    referred to: Allen L. Edwards, Techniques of Attitude
    Scale Construction (New York: Appleton-Century-Crofts
    Inc., 1957); and Leon Festinger and Daniel Katz (ed)
    Research Methods in the Behavioral Sciences (New York,
    Holt, Rinehart and Winston, 1953).

construction of attitude scales. In constructing a scale by
this method, a large number of items related to the attitude
object are formulated. These items are then sorted by a large
number of judges into 11 categories which the judges consider
to be equally spaced in terms of the degree of agreement with
which the item reflects the underlying attitude. During the
sorting process only the middle and two extreme positions
were defined for the judges. The piles were lettered A to K
originally, and the numbers one to eleven were assigned to the
piles when sorting had been completed. Where there was consider-
able disagreement in sorting the statements, the items causing
the disagreement were discarded as being too ambiguous to use
for this particular purpose. Each of the remaining statements
were assigned a scale value which represented the median of
the scale positions assigned by the various judges. In order
to measure an attitude, the respondent is asked to place a
check by the statements with which he agrees. The scale value
of these checked items are then tabulated, and the respondent's
score is the medium scale value of all the items checked.
According to Shaw and Wright, "The reliability of scales devel-
oped by this procedure are usually satisfactory (.75 or better)." [66]
There have been a considerable number of studies
undertaken with regard to Thurstone's method of equal appearing

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66. Shaw and Wright, op. cit., p. 22.

intervals. According to Thurstone, a major requirement for
attitude scales is that the scale values be independent of
the attitudes of the judges, who do the initial sorting. Carl
Howland and Muzafer Sherif take issue with this, and say

> "That the attitudes and opinions of the judges
> have no effect on the placement of items is in
> sharp conflict with the results of studies in
> the fields of perception and judgement. These
> studies indicate that judgements are greatly
> influenced by motivational and attitudinal
> factors operative at the time."[67]

Sherif and Hovland point out that studies in the
field of judgement indicate that the position of an individual
or an issue reflects the nature of his judgements. Thus, they
suggest that the original studies on attitude scaling

> "...had not employed S's with a sufficiently
> wide range of attitudes to represent adequately
> the strongly involved S's who would be most
> likely to show the distortions and displacements
> typically obtained in the field of perception
> and judgement."[68]

In their study, Hovland and Sherif formulated three
hypotheses that were supported by the data they obtained.
Basically, these hypotheses were (1) Judges with extremely pro
or con attitudes will show a tendency to concentrate their
placement of items into a small number of categories; (2) Judges
with an extreme position and strong personal involvement will be
highly discriminating in accepting items at their own end of the

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67. Carl I. Hovland and Muzafer Sherif, "Judgemental Phenomena
and Scales of Attitude Measurement: Item Displacement in
Thurstone Scales, "Journal of Abnormal and Social Psychology,
47 (1952) p. 822.
68. Carl I. Hovland Muzafer Sherif, "Judgemental Phenomena and
Scales of Attitude Measurement: Item Displacement in Thurstone
Scale," Journal of Abnormal and Social Psychology, 47, (1952)
p. 831.

scale (raised threshold of acceptance), and they will display a
strong tendency to lump together statements at the end of the
scale which they reject (lowered threshold for rejection); and
(3) a greater degree of displacement will occur for the "neutral"
items and a smaller degree for the sharply defined pro and con
statements at the extremes. [69]

Harry S. Upshaw [70] performed an experiment to test four
alternative interpretations of the influence of judges' attitudes
on equal-appearing intervals scale values. He used four theo-
retical models, perceptual vigilance, assimilation-contrast,
adaption level, and variable series. The data he obtained gave
most support to the variable series interpretation, which assumes

> "...that the own attitudes of judges are an
> extraneous variable which acquires importance
> only when the item series is such that the
> positions of some judges are outside it." [71]

Thus, from Upshaw's studies it appears that valid
equal-appearing intervals scales can be constructed only when
the own positions of all the judges are adequately covered by
the item series.

Another method of constructing an attitude scale is
that of "graded dichotomies". This method has also been described

69. Ibid., p. 824.

70. Harry S. Upshaw, "Own Attitude as an Anchor in Equal-Appearing
    Intervals, Journal of Abnormal and Social Psychology, 64
    (1962), pp. 85-96.
71. Ibid., p. 95.

as "method of successive intervals" and "equal discriminability scale".[72] This method is similar to that of equal appearing intervals, in that a large number of items are collected, and judges are asked to place them into a fixed number of categories spaced along a favorable continuum. However, instead of assuming relative distances between categories, this model treats the categories as continuous segments of the attitude continimum, separated by boundaries.

Some advantages of this procedure over the method of equal appearing intervals are

"(a) no assumption is made regarding the widths of the intervals; the only requirement is that each successive interval represent some additional amount of the attitude. (b) Scale values obtained by this method are linearly related to those obtained by the method of paired comparisons. (c) The method provides its own interval consistency check upon the assumptions that are made."[73]

Another method of attitude scaling is the method of summated ratings. Rensis Likert published this technique in 1932. In Likert's method five response categories are provided for each item: strongly approve, approve, undecided, disapprove, and strongly disapprove.[74] These categories are scored 5,4,3,2, and 1 respectively, and an individual's scale score is the sum of his scores on the items. Although Likert originally used a sigma scoring method, it was abandoned when it was discovered that the

72. Shaw and Wright, op. cit., p. 23.
73. Shaw and Wright, op. cit., p. 23.
74. Green, op. cit., p. 351.

simpler 5,4,3,2,1 scheme yeilded scores with a correlation of better than .99 with the sigma scores.

In Likert's scaling technique, a large number of items having the characteristic that the more favorable the individual's attitude toward the attitude object, the higher his expected score for the item, are required. These items are given to a sample of the target population, to be placed in the five categories mentioned above. In using this technique it is important that the scale be standardized on a sample drawn from the target population, since the interpretation of the Likert scores is based on the distribution of the sample scores.

Louis Guttman [75] provided a new departure in attitude measurement in 1944 by proposing a nonmetric method for scaling monotone attitude items. This method is known as "scalogram analysis" and is based upon the idea that items can be so arranged that an individual who responds positively to any particular item will also respond positively to all other items having a lower rank. Bogardus based his social distance scale on this notion, but his approach did not develop into a general scale construction method. [76]

In developing a Guttman attitude scale, a number of monotone items about an attitude object are formulated and administered

75. Guttman, op. cit.
76. For a discussion of his method, see Emory S. Bogardus, "Measuring Social Distances", Readings in Attitude Theory and Measurement, ed. Martin Fishbein (New York; John Wiley Sons Inc., 1967), pp. 71-76.

to a group of subjects. The response patterns of this group are then analyzed to see whether or not the items are scalable. Whether or not an item is scalable is determined by its "coefficient of reproducibility." Theoretically, this coefficient of reproducibility is equal to the proportion of responses to items that can be correctly reproduced from knowledge of an individual's score. [77]

In addition to these above mentioned techniques there are a variety of other methods of attitude scale construction. Edwards and Kilpatrick [78] presented a method of attitude scale construction that is essentially a synthesis of the procedures of Thurstone, Likert and Guttman. Some other methods are the unfolding technique of Coombs, Banta's method of unfolded partial rank order (UPRO) and Lazerfield's latent structure analysis. [79]

As was mentioned previously, a number of difficulties arise when one tries to measure attitudes. Because of their nature, attitudes must be measured indirectly. One purpose of measuring attitudes is to provide a basis for predicting future behavior. Doob recognized this shortcoming, and commented,

77. For further discussion of the "Coefficient of Reproducibility," see Shaw and Wright, op.cit., p. 25.
78. A. L. Edwards and F.P. Kilpatrick, "A Technique for the Construction of Attitude Scales", Journal of Applied Psychology, 32 (1948), pp. 374-384.
79. For a discussion of these methods see Shaw and Wright, op. cit., pp. 26-29.

"The principal psychological disadvantage under
which scales and polls labor is that, although
they indirectly measure an implicit anticipatory
response which is socially significant, they
cannot determine what goal response the attitude
now precedes."[80]

G. W. Allport [81] points out three major areas of

difficulty in attitude measurement. The first is that attitude

measurement can only deal with common attitudes. Thus, attitude

scales should be regarded as very rough approximations of the

manner in which attitudes actually exist in an individual's

mental life. Secondly, since an individual possesses many

contradictory attitudes, his mental set at the moment which he

submits to a scale does not necessarily tell the whole story.

Sherif, Sherif and Nebergall base their "social judgement -

involvement approach" to attitude study on the premise that

"...An individual's stand toward other people,
groups, or social issues is not adequately
reflected by a single alternative or position
among those available."[82]

They go on to discuss the necessity of measuring

attitude in terms of latitude of acceptance, rejection and non-

commitment.

A third area of difficulty mentioned by Allport is

that of rationalization and deception. These occur, in partic-

ular when the attitudes under study are related to the individual's

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80. Doob, op. cit., p. 149.
81. Allport, op. cit., pp. 11-12.
82. Sherif, Sherif and Nebergall, op. cit., p. 3.

moral life or social status. In many cases, even anonymity is
not a guarantee that an individual will answer reliably. Thus,
Allport concludes by saying:

> "Lack of insight, ignorance, suspicion, fear,
> a neurotic sense of guilt, undue enthusiasm,
> or even a knowledge of the investigator's
> purpose may invalidate an inquiry."[83]

Katz and Stotland [84] point out some areas of diffi-
culty in dealing with attitudes and behavior. The first thing
to be noted is that often an investigator assumes that an
individual who expresses an evaluation of an object is also
committing himself to a form of behavior toward it which corres-
ponds to this expressed evaluation. However, attitudes with
little or no action orientation are not necessarily good
predictors of behavior. Incorrect inferences about the predis-
position to behave in certain ways can be made if the investiga-
tor does not inquire carefully into action orientations in the
measurement of attitudes. There may be an action orientation,
but it is not necessarily the one the investigator assumes.

Again, it is difficult to predict behavior from a
knowledge of single attitudes since the same object may be tied
to more than one attitude. Thus the choice of attitude which is
expressed in a particular situation is a function of the strength

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83. Allport, op. cit., p. 12.
84. Katz and Stotland, op. cit., pp. 453-456.

of the respective attitudes, the strength of the motivational

forces present, and the context in which the object of the

attitude is perceived.

From their analysis of attitude, Katz and Stotland

conclude that there are two main implications for research.

These are:

> "The assessment of attitudes should contain more
> than the measurement of affectivity and evaluation.
> It should also include measures of the belief component,
> the behavior component, and the linkage of the attitude
> to its value system. Moreover, research on attitude
> should assess the motivational basis of the attitude.
> Secondly, in research on attitude change, the procedures
> to produce change should be designed to affect a spec-
> ified factor or factors which previous assessment has
> suggested as particularly significant."[85]

The above mentioned are difficulties which are some-

times encountered in measuring attitudes through direct observa-

tion of behavior. Another assessment method, that of direct

questioning, also poses many difficulties for the investigator.

As Edwards points out:

> "Only when the social atmosphere is free from
> felt or actual pressure toward conformity
> might we expect to obtain evidence about a
> person's attitude by means of direct question-
> ing."[86]

For a further discussion of the direct questioning

method, one is referred to S. L. Payne's, The Art of Asking

Questions. [87]

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85. Katz and Stotland, op. cit., p. 465.

86. Edwards, op. cit., p. 3.

87. S. L. Payne, The Art of Asking Questions,(Princeton, N.J.;
    Princeton University Press, 1951).

In a recent article, Michael Micklin and Marshall
Durbin [88] point out that although the concept of attitude holds
a central position for research in sociology and social psychology,
not enough attention has been given to the conditions leading to
invalid and unreliable attitude measurement, and in particular to
the linguistic factors associated with the typical methods of
eliciting social attitudes. The study of Micklin and Durbin is
concerned with the linguistic dimensions of attitude scaling
technique. These authors feel that:

> "Apart from well-known sources of measurement
> error such as sampling bias, characteristics of
> the interview situation, and the form in which
> the items are administered...there is another
> set of factors which are even more difficult to
> control and, like those mentioned above, may
> contribute to measurement error." [89]

Micklin and Durbin deal with the relationship
between the occurance of certain syntactic features and levels
of scale reliability. They assume that one of the factors under-
lying failure to obtain comparable results from two attitude
scales which supposedly measure the same content is because
they are syntactically different to such a degree that they have
very different meanings. From this data, the researchers conclude
that "We cannot simply assume that linguistic variations result in
random rather than systematic error." [90]

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88. Michael Micklin and Marshall Durbin, "Syntactic Dimensions of
    Attitude Scaling Technique: Sources of Variation and Bias,"
    Sociometry, 32 (June, 1969).

89. Ibid., pp. 194-195.

90. Ibid., p. 205.

This aforementioned article is included in this section to illustrate the fact that as advances are being made in techniques of attitude measurement, the problems associated with these techniques are becoming more specific.

Attitude Change

The area of attitude change is of particular interest to people who are involved in such fields as advertising, propaganda and education. In the context of this present study concerning the attitude of teachers toward teacher training, the problem of attitude change is a pertinent one. It was mentioned in an earlier section of this chapter that attitudes are learned, and that as attitudes are learned, one's perception with regard to a particular attitude object tends to be influenced by the attitudes that have already been formed. Thus when a student enters a teacher training institute, he already has formed some attitudes about teaching, students, teachers, teacher training institutes, and teacher educators. The problem here lies in the direction of these attitudes. A question that should be facing teacher educators, as we shall see, is whether or not a teacher training program is effective in changing, where necessary, the attitudes of persons intending to become teachers. This also brings up the question, "How are attitudes changed?" In this section, an attempt will be made to describe some agents of attitude change and some of the problems involved in changing attitudes.

In the first section of this chapter, a number of definitions of the term "attitude" were presented. A common point of agreement among the various definitions was that attitudes are relatively enduring predispositions of some sort. With this in mind, Rokeach presents as a definition of attitude change the following:

> "Attitude change would then be a change in predisposition, the change being either a change in the organization or structure of beliefs or a change in the content of one or more of the beliefs entering into the attitude organization."[91]

Katz and Stotland make a certain number of assumptions about attitude change while examining attitudes from the point of view of their structural components and characteristics; their relationship to the structures of value and belief systems; and their functional relationship to motive patterns. The most basic assumption they make is that

> "...the key factors in attitude change are not the situational forces or the amounts and types of information to which the individual is exposed but the relation of these factors to the individual's motive patterns."[92]

Some other assumptions made by Katz and Stotland related to attitude change are supplementary to or elaborations of the above assumption. They assume that affective, action-oriented, intellectualized and balanced attitudes can all be changed if control is gained of the individual's behavior toward

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91. Rokeach, op. cit., pp. 134-135.

92. Katz and Stotland, op. cit., p. 456.

the attitudinal object. A change in the value system in which they are integrated can affect a change in attitudes of the intellectual and balanced types. Modification of the cognitive component of the attitude is also assumed to be a process of changing intellectualized and balanced attitude. Emotional conditioning can modify the affectivity of attitudes, again resulting in attitude change. Two other assumptions of Katz and Stotland concerning attitude change which are particularly worthy of note are:

>"The lasting effects of attempts to change intellectualized and balanced attitudes are related to the figural or background character of the various factors in the situation productive of change...
>
>"Ego-defensive attitudes will be relatively susceptible to change through procedures designed to give self-insight and will be resistent to change through procedures employing information and action."

There have been a number of experimental studies conducted concerning the conditions that determine the nature of attitude changes. Herbert Kelman [94] described one such study in which the nature of attitude changes produced by communications on social issues were investigated. Kelman identified three main influences of an attitude change, compliance, identification and

93. Katz and Stotland, op. cit., pp. 462-463.

94. Herbert C. Kelman, "Compliance, Identification, and Internalization: Three Processes of Attitude Change, "Readings in Attitude Theory and Measurement, ed. Martin Fishbein (New York: John Wiley & Sons, Inc., 1967), pp. 469-476.

internalization, and concluded his article by saying:

> "The conditions under which these attitudes
> are likely to be changed, the kinds of actions
> to which they are likely to lead, and the ways
> in which they are likely to affect reactions to
> particular events will be different, depending
> on whether these attitudes are based on compli-
> ance identification, or internalization."[95]

Basically, compliance is associated with the social effect of accepting influence. When an individual accepts influence and adopts some induced behavior in order to achieve a favorable reaction from some person or group, compliance is said to have occurred. When a person adopts some induced behavior because it is associated with a satisfying self-defining relationship to another person or a group, identification can be said to occur. In this case, the specific content of the response that the individual adopts are not of major importance to him. When an individual accepts influence because the content of the induced behavior is intrinsically rewarding, internalization can be said to have occurred. In this case, the induced behavior is adopted because it is congruent with his value system.

Irving Sarnoff and Daniel Katz [96] take a motivational approach to the study of attitude change. This approach assumes

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95. Ibid., p. 476.

96. Irving Sarnoff and Daniel Katz, "The Motivational Bases of Attitude Change," Journal of Abnormal and Social Psychology, 49 (1954), pp. 115-124.

that attitudes are formed in conjunction with three types of

motivational contexts; reality testing, reward and punishment,

and ego-defense. Two individuals who may have identical

attitudes may have different motivational bases, and the

influence procedure which would affect a change in one person's

attitude may not be effective in changing the other person's

attitude. It should be kept in mind that social attitudes

reflect a variety of motivational sources.

Sarnoff and Katz suggest four approaches to attitude

change. These are (1) The Rational Approach, where attitudes

are changed through attacking the cognitive object and the frame

of reference in which it is perceived; (2) Changing attitudes

through the application of social rewards and punishments;

(3) Changing attitudes by attacking ego-defensive forces through

the use of cartharsis and direct interpretation; and, (4) Chang-

ing attitudes by tapping several motivational contexts, attacking

ego defenses and applying social rewards and punishments. [97]

The first approach is based on the assumption that an

individual can acquire inappropriate attitudes in the functioning

of the perceptual-cognitive process, where the individual comes

into contact with only a limited aspect of reality. When new

facts are presented they should result in cognitive reorganization,

rather than blocking or exclusion. Also, cognitive theory assumes

that perception occurs within a frame of reference. [98]

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97. Ibid., pp. 121-123.
98. Ibid., p. 122.

Therefore, to change an attitude, a new frame of reference must be activated before the new information is introduced.

The second approach is based on the assumption that one major reason for attitude change is the desire to gain social approval. Group standards are accepted by the individual because of their immediate reward character. Thus changes in attitudes should occur as a result of a changed perception of group norms. In this type of change, the change is external in that the group norm is changed and the individual merely moves with it.

Another method in this second approach is to attempt to restructure the individual's value systems. This involves communication - persuasion techniques, and the implicit theory in these techniques is that the individual will restructure his psychological field in order to maximize the attainment of his goals and values. The change attempts will have different effects on various individuals, and these effects will depend upon the individual's personal needs.

The third approach involves two techniques used quite widely in psychotherapy - permissive cartharsis and direct interpretation. The basic objective of these two thchniques is "...to help the individual attain insight and to restructure his attitudes accordingly."[99]

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99. Ibid., p. 123.

It is assumed that permissive catharsis offers the patient relief from tension through the expression of his feelings of guilt and hostility. Also, through verbalization, one's inner conflicts can become objectified leading to clearer self-perception. In the direct interpretation method, a person is confronted with a psychological explanation of his behavior. These explanations are supposed to give a person direct insight into the internal factors which determine their overt behavior. In the light of these new insights, the person is supposed to use his common sense and restructure his behavior in view of his newly acquired knowledge. It should be pointed out that these two techniques will not necessarily be effective for all people.

The fourth approach was formulated by Sarnoff and Katz on the assumption that a multiple approach is needed to change the attitude of some people. This seems to be a reasonable assumption in view of their contention that "...social attitudes reflect a variety of motivational sources." [100]

In recent years there has been a proliferation of attitude change research. A number of theories have been developed regarding the manner in which attitudes are changed. Just as there is no one generally accepted theory of attitude formation, there is no one generally accepted theory of attitude change. For a description of some of the more prominent attitude

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100. Ibid., p. 124.

change theories, one is referred to Chester A. Insko's <u>Theories</u> of Attitude Change.[101]

Carl I. Hovland's work on attitude change is considered by some[102] to be the "most important fountainhead of contemporary research" in this field. His work and the work of his colleagues in the Yale Communication Research Program led. to a series of texts concerning various aspects of attitude change. A sampling of some of the research in the field of communication and attitude change will be mentioned below.

One interesting study[103] was concerned with the order of presentation in persuasion, and involved

> "...an analysis of the effects upon opinions and attitudes of different sequences of presentation of communication materials."[104]

A number of conclusions were drawn from this study. Some of the conclusions were (1) if two sides of an issue are presented successively by different communicators, the side presented first does not of necessity have the advantage; (2) if a public indication of one's position is made after hearing only one side of a controversial issue, the effectiveness of a subsequent presentation of the other side is reduced; (3) expressing a position anonomously after hearing only one side of an issue

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101. Chester A. Insko, <u>Theories of Attitude Change</u> (New York; Appleton-Century-Crofts, 1967).
102. <u>Ibid</u>., p. 1.
103. C.I. Hovland, et al. <u>The Order of Presentation in Persuasion</u> (New Haven: Yale University Press, 1957).
104. <u>Ibid</u>., p. vi.

does not significantly detract from the effectiveness of the other
side; (4) when one communicator presents contradictory informa-
tion in a single communication the items presented first tend to
dominate the impression received; (5) the primary effect can
be reduced by separating contradictory messages and by warning
subjects against the fallibility of first impressions, (6) present-
ation of information relevant to need satisfaction after need
arousal brings greater acceptance than if the information is
presented before the needs are aroused; (7) the order of present-
ation is more significant in influencing the opinion of subjects
with a relatively weak desire for understanding than for those
with high cognitive needs; (8) more opinion change occurs when
communications highly desirable to the recipient are placed first,
followed by those less desirable, rather than the reverse order,
and (9) when an authorative communicator mentions pro arguments
and also non salient con arguments, the pro first order is superior
to the con first order. [105]

These are some of the areas covered in attitude change
and communication research. Some of these areas have been studied
individually by other authors also. [106]

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105. Ibid., pp. 130-137.

106. For further discussion of communication effects see C.I.
     Hovland, O.J.Harvey and M. Sherif, "Assimilation and Control
     Effects in Reactions to Communication and Attitude Change,"
     Journal of Abnormal and Social Psychology, 55 (1957), pp. 244-252;
     Muzafer Sherif and Carl I. Hovland, Social Judgement; Assimila-
     tion and Contrast Effects in Communication and Attitude Change
     (New Haven: Yale University Press 1961); and Walter Weiss,
     "The Effects of a Communication on Attitude Change and Scale
     Judgements," Journal of Abnormal and Social Psychology, 62 (1961),
     pp. 133-140. Melvin Manis in "The Interpretation of Opinion
     Statements as a Function of Recipient Attitudes," Journal of
     Abnormal and Social Psychology, 60 (1960), pp. 340-344, presents
     some pro and con views on the Sherif-Hovland theory.

In a recent study, Erwin P. Bettinghaus and John R. Baseheart[107] investigated the effects of pro and con, one and two-sided messages on receiver attitude change when subjects were required to commit themselves publicly on an issue prior to reception of the message and when they were not required to commit themselves publicly. Their attitudes were then expressed after the message was received. The authors hypothesized that when prior public commitment on an issue was not required, subjects would change their attitudes toward the topic more significantly than would subjects who were required to make a prior public commitment. They also hypothesized that this effect would be more pronounced for subjects receiving a favorable one-sided message on the topic than it would be for subjects receiving a one sided unfavorable message on a two-sided pro and con message. The data collected by the authors confirmed their hypothesis.[108]

There are other areas of study which should perhaps be mentioned here, such as Osgood and Tannenbaum's[109] principle of congruity, the effects of reference groups and role playing on attitude change, and also some of the difficulties in changing

107. Erwin P. Bettinghaus and John R. Baseheart, "Some Specific Factors Affecting Attitude Change," The Journal of Communication, Vol. 19 (September 1969).

108. Ibid., p. 237.

109. C. E. Osgood and P.H. Tannenbaum, "The Principle of Congruity in the Prediction of Attitude Change," Psychological Review, 62 (1955), pp. 42-55.

attitudes due to the prominent place attitudes hold in a person's self system.

Osgood and Tannenbaum describe three variables which they feel are most significant with respect to the direction of attitude change to be expected in any situation. These three significant variables are:

> "(a) existing attitude toward the source of a message, (b) existing attitude toward the concept evaluated by the source, and (c) the nature of the evaluating assertion which relates source and concept in the message."[110]

Their principle of congruity takes these three variables into consideration, contending that changes in evaluation are always in the direction of increased congruity with the existing frame of reference. There may be a variety of attitudes held by the individual toward diverse concepts, but there will be no felt incongruity or pressure toward attitude change unless an association among the objects of judgement is made.

Earl R. Carlson[111] performed an experiment designed to test the hypothesis that attitudes toward a situation or object may be changed through an alteration of the individual's perception of the significance of the object as a means for the attainment of valued goals. He also attempted to test whether attitude change generalizes to related objects, and whether the degree of generalization is dependent on the similarity of the objects.

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110. Ibid., p. 42.
111. Carlson, op. cit.

The results of his experimentation demonstrated that at least for subjects with moderate initial attitudes toward an issue, those who changed in perceived instrumental relationships also changed their attitudes. The data also showed that in some cases attitude change generalized to related attitude, but not in all cases. The extent of attitude change generalization was not shown to vary with the similarity of the attitude issues.[112]

An individual's self system plays an important part in attitude change. To say that a person has an attitude toward some object or situation means that the person has established some standard of evaluating the object or situation as being good or bad, favorable or unfavorable, desirable or undesirable. These evaluations are to a great extent, important constituents of his self-concept, and are not usually snap judgements or transitory opinions on the part of the individual. Thus, a change in attitude is not some trivial experience. As Sherif, Sherif and Nebergall say,

> "Changing his attitude means changing him as a person, changing a part of himself as he has come to know himself relative to his social world."[113]

In The Nature of Prejudice,[114] Allport says that a prejudiced attitude is not like a cinder in the eye that can be extracted without affecting the integrity of the organism as a whole. Rather, prejudiced attitudes, or rigid attitudes, are

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112. Ibid., p. 261.
113. Sherif, Sherif and Nebergall, op. cit., p. 13.
114. Gordon W. Allport, The Nature of Prejudice (New York: Doubleday Anchor Books, 1958).

usually so deeply embedded in the personality structure that a
change in such attitudes usually involves a complete overhauling
of the person's inner economy of life. Thus, to change a deeply
embedded attitude seems to imply that a restructuring of the
individual's personality must be undertaken. Allport supports
this to some extent, but cautions that if one applies the struc-
tural point of view too rigidly, it may lead to false psychology
and false pessimism.

> "It is really not sensible to say that before
> we change personal attitudes we must change
> total structure; for in part, at least, the
> structure is the product of the attitudes of
> many single people."[115]

In Beliefs, Attitudes and Values, Milton Rokeach also
considers the effects of attitude change on the personality system.
He says that there are a number of structural dimensions that can
be employed to describe the organization of various independent
parts within a whole, and these dimensions can be employed to describe
the organization of such things as: the several beliefs contained
within an attitude; the several attitudes contained within an
attitude system, or all of man's beliefs, attitudes and values within
his total cognitive system. He goes on to say,

> "It should perhaps be stressed that a change
> in one part produces cognitive strain or
> inconsistency within the system, thus giving
> rise to forces leading to reorganizations of
> the whole system."[116]

115. Gordon W. Allport, The Nature of Prejudice (New York:
     Doubleday Anchor Books, 1958) p. 467.
116. Rokeach, op. cit., p. 117.

The examples cited above illustrate the fact that the self-concept plays an important part in attitude formation and attitude change. Mark Pilisuk[117] suggests an addition to balance theory,[118] namely, that there exists a dimension of resistance to change among attitudes. According to Pilisuk,

"At the highest point of this dimension is the positive attitudes towards one's self, closely followed by attitudes toward a set of attributes, abilities, and ideas with which the self is identified; i.e. attitudes which support self acceptance,"[119]

Pilisuk contends that such attitudes, along with a group of attitudes toward a small group of significant others, are central and tend to remain relatively unchanging, even when imbalance exists between the entities in this central group. This situation tends to be "resolved" through rationalization.

Alberta and Sidney Siegel performed a study[120] of attitude changes which occur over time when membership groups and reference groups are identical and when they are disparate.

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117. Mark Pilisuk, "Cognitive Balance and Self Relevant Attitudes, "Journal of Abnormal and Social Psychology, 65 (1962) pp. 95-103.

118. For a discussion of balance theory, see Chapter 8, "Heider and Newcomb's Balance Theories," Chester A. Insko, Theories of Attitude Change (New York; Appleton-Century-Crofts, 1967).

119. Pilisuk, op. cit., p. 95.

120. Alberta E. Siegel and Sidney Siegal, "Reference Groups, Membership Groups, and Attitude Change,"Journal of Abnormal and Social Psychology, 55 (1957) pp. 360-364.

They define reference groups of an individual as "...the groups in which he aspires to attain or maintain membership".[121] This study, which involved a field experiment, tested the general hypothesis that the degree and direction of a person's attitude change over time is dependent on the attitude norms of his membership group, and on the norms of his reference group.

The experimental data verified the hypothesis. It was found that the greatest amount of attitude change occurred in subjects who came to take as their reference group one which was imposed as an initially nonpreferred membership group. [122]

A study conducted at Yale University as part of a program of research on factors influencing changes in attitude and opinion concerned itself with the influence of role playing on opinion change. [123]

This study by Janis and King dealt with relatively impersonal beliefs about the future, and the results do not necessarily correspond to those that might be obtained from studying attitudes and opinions which are more directly linked with daily life activities and interpersonal relationships. However, as a result of their study,

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121. Ibid., p. 360.

122. For a discussion of resistance to change of attitudes which are anchored in group norms lying near one end of an attitude continunum, see Kelley and Volkart, op.cit.

123. Irving L. Janis and Bert T. King, "The Influence of Role Playing or Opinion Change", Journal of Abnormal and Social Psychology, 49 (1954) pp. 211-218.

Janis and King concluded that

> "The main findings, together with various
> methodological checks, support the hypothesis
> that overt verbalization induced by role
> playing tends to augment the effectiveness
> of a persuasive communication."[124]

It was suggested by the results of this study that
attitude change may occur even when role playing is artificially
induced. This, of course, has implications for teacher training
programs, just as does the previously cited study on the effects
of membership groups and reference groups.

It was mentioned in the section of this chapter deal-
ing with the measurement of attitudes that it is rather difficult
to assess attitudes. The assessment of attitude change is no
easier task. As Gordon Allport was led to comment, methods for
measuring change of attitudes are a recent development and "the
more we attempt to apply them, the more complexities come to light."[125]

Milton Rokeach suggests three types of method for assess-
ing attitude change.[126] One is a test for opinion change across
different situations where the more post-tests done, the greater
the strength of the conclusion. A second type involves tests for
changes of several opinion in one situation. The third method
suggested requires testing for other behavioral changes accompanying
a given opinion change, on the basis that if a single expressed
opinion change really represents a change in the underlying attitude,

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124. Irving L. Janis and Bert T. King, "The Influence of Role Play-
    ing on Opinion Change," Journal of Abnormal and Social Psychology,
    49 (1954) p. 217.
125. Allport, The Nature of Prejudice, p. 446.
126. Rokeach, op. cit., p. 125.

then it is reasonable to expect that this change will be accompanied
by cognitive, affective, and behavioral changes that are at least
theoretically related to the change in attitude.

It is interesting to note that most studies on attitude
change as a result of some influencing factors are conducted on a
short term basis. The experiment is performed, perhaps on a pre-
test-post-test basis, and conclusions are made. In the wealth of
material available on attitude change there are relatively few
studies which include a number of post-tests over a period of years.
However, in the studies that have been concerned with the long
term effects of attitude change, a few interesting points have
been uncovered.

It has been found [127] that attitude regression may occur,
whereby after a period of time opinions tend to slip back, but not
all the way, to the original point of view. This regression is not
a universal trend however. It was found by some researchers that [128]
although attitude regression is a common phenomenon, in some
people a reverse trend is present. Also, in some people "sleeper
effects" come to light in which those who were at first resistant
to attitude change later came to show the change. This phenomenon
of attitude regression, as well as many of the other characteristics
of attitudes covered in this chapter, will be examined in Chapter
Two.

127. Allport, The Nature of Prejudice, p. 457.
128. Ibid., p. 458,

It is hoped that this chapter has outlined very generally, the complexities of attitude study. Though very theoretical in its approach, it is intended to lay foundations for the following chapter, which treats of attitude studies as related specifically to teacher training, and education in general.

Chapter 2

Attitudes and Teacher Training

The formation of attitudes towards teaching

As we have discussed in the previous chapter, attitudes may be formed early in life, becoming solidified and not easily susceptible to change, or even to detection of their presence. This is also true of attitudes towards education and all these things which accompany it, i.e. teachers, pupils, teacher training.

In the following pages we shall see that all prospective teachers have undergone a fairly rigorous program in teacher training even before they enter a formal teacher training program. This, of course, is the training which they received through observing teachers in action while pupils in the elementary, junior-high, senior-high, and university classrooms. Hence, many of their attitudes towards the teacher and his role are formed early in their careers, not as teachers, or teacher trainees, but as students.

A study conducted by Ojeman and Snider at the State University of Iowa[1] attempted to discover how pupils conceive of the teacher and his function, how they react to his behavior, and

1. Ralph H. Ojeman and Bill C.F. Snider, "The Development of the Child's Conception of the Teacher", The Journal of Experimental Education, Volume 32, No. 1, (Fall of 1963), 73-77.

whether they adopt a stereotyped approach towards him.[2] Results

of the comparison of an experimental group (a class equipped for

the teaching of behavioral science) and a control group showed

that pupils in the latter section considered teachers to behave

in an arbitrary or judgemental manner, while those in the former

recognized a complex causation approach in their teachers. The

control group seemingly was consistent with an earlier study by

Debus[3] that attitudes about teachers formed previously will

affect present attitudes towards them. Thus, the normal elementary

classroom situation which has, in most cases, not been equipped to

teach behavior sciences has resulted in students forming a gener-

ally unfavorable attitude towards teachers. This essentially has

been the result of an inadequate understanding of the teacher's

behavior on the part of the pupil.

On the other hand, the study affirms that such attitudes

need not have been formed if the young child is taught something

of social interactions with others and learns to adapt to his

social environment. In such a situation the teacher is considered

as a guide and helper in learning rather than an authoritarian

figure.

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2. It should be noted that the study was not concerned with a
   pupil rating of teacher effectiveness, but rather with the
   pupil's conception of the role of the teacher, and the forces
   operating in the teacher's behavior.

3. Raymond L. Debus, "Factors Related to the Favorability of
   Children's Perceptions of Their Teachers" Dissertation Abstracts,
   XVI (1957), 280-281.

There are other authors however, who disagree with the conclusions of the above study. Their contention is that such a study does not sufficiently reflect individual behavior. These researchers suggest that as individuals we surely can recall a teacher who has been instrumental in leaving us with a positive attitude towards teachers.

Vernon C. Hall conducted an experiment at Ohio State University which was designed to discover if students agreed as to whom their best and worst teachers were.[4] This presumably would demonstrate whether all students developed the same attitudes towards teachers, or whether individuality played a prominent part. Questionnaires were given to 1217 undergraduate education students at Ohio State in which they were asked to:

1) Name three of the best and worst teachers ever experienced

2) Where and when these teachers were encountered

3) The subjects taught by these teachers

4) A list of perceived effects of very best and very worst teachers

5) A character sketch of teachers rated very best and very worst.

One of the more interesting results of this study was that familiar names were included in both lists, and in fact, 103 teachers were named in both categories. While there were many instances of agreement, the study does show that individual

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4. Vernon C. Hall, "Former Student Evaluation as a Criterion for Teaching Success", Journal of Experimental Education, Vol. 34, No. 1 (Fall of 1965).

teachers do have an affect on the formation of student attitudes towards teachers. Furthermore, Hall believes that "particular teachers do have <u>lasting</u> effects on student attitudes and behavior."[5] Therefore, while there might be agreement on the point that generally students do not form a good attitude toward teachers, it is certainly not to be accepted all-inclusively.

An extremely interesting investigation of the effects of parents and teachers on the formation of attitudes in women towards teaching was conducted by Benjamin Wright and Shirley Tuska of the University of Chicago.[6]

The purpose of the study was to learn more about how personality contributes to becoming and remaining a teacher, by examining the attitudes and recollections of beginning women teachers. The authors state:

> "Our work is based on the premise that early satisfactions and frustrations set the stage for subsequent attitudes toward teachers and teaching and that the kind of teachers young women enrolled in teacher training tend to become is governed by the effect this child- hood heritage has on their personalities." [7]

A questionnaire, subsequently answered by 508 women enrolled in elementary and secondary teacher-training programs at twelve schools, was used to record the prospective teacher's conceptions of herself and her images of the people in her life

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5. <u>Ibid</u>, p. 6.
6. Benjamin D. Wright and Shirley A. Tuska, "The Childhood Romance Theory of Teacher Development", <u>The School Review</u>, Vol. 75, No. 2.
7. <u>Ibid</u>, p. 124.

most likely to have influenced her development. For the purpose
of this study, the influences of three people are investigated
in terms which the authors call the "three romances", the
"Father Romance", the "Mother Romance" and the "Teacher Romance".
In the first, the girl not only loves her father and wants to
possess him as a friend, but she admires him and wishes to emulate
him as a hero. The mother may be seen as an enemy in this father-
daughter system, but she does not interfere effectively as a rival.
If she were a successful rival, note the authors, family competi-
tion would have had to be resolved. [8]

In the "Mother Romance", the girl not only loves her
mother and wants to possess her as a friend but admires her and
wishes to emulate her as a hero. Father does not appear in a
positive role in this mother-daughter system, and there has been
no significant rivalry with father to be resolved. [9]

In the "Teacher Romance", teachers have taken the place
of parents. Either the girl's relationship with her parents was
unsatisfactory in some way, or her relations with teachers over-
shadowed them. Teachers become the influential persons in her life.
She not only loves the teachers as friends and wants to possess them,
but admires them as heroes and wants to emulate them. [10]

Results from the data received confirmed the authors

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8. Ibid., p. 135.
9. Ibid, pp. 136-137.
10. Ibid, p. 137.

expectations that the dominant figure in the child's life influenced the attitude towards teaching and her subsequent level of teaching in the education profession. It appears that the girl whose childhood is dominated by a "Father Romance" would like to have father and be father at the same time. One might therefore expect that she would be attracted to a masculine professional life. But she is not only interested in having him. Her occupational choice must allow her to fulfill both desires at the same time.[11] A child influenced in such a manner will tend to become an elementary teacher.[12]

The girl whose childhood was marked by a "Mother Romance" would like to have and be mother. One might expect that she should be attracted to motherhood. But, say the authors, this may be a motherhood of a different kind. The girl who has resolved her family conflict with a mother-hero and a father-friend will look for a husband who resembles her father, but the girl who has had a "Mother Romance" will look for a husband who resembles her mother.[13] Such an influence on a child may not influence the grade level chosen but may effect the manner in which pupils are treated.

The girl who has had a "Teacher Romance" has forsaken her parents and turned to her teachers. She has also abandoned her

11. Ibid, p. 138.
12. Ibid, p. 139.
13. Ibid, p. 138.

enthusiasm for early childhood, since school was more satisfying than home. Being the pupil of a beloved teacher was better than being her parents' child. She replaced dependence and "having" at home with self-assertion and "being" at school.[14] A child influenced by the "Teacher Romance" theory will tend to become a high school teacher.[15]

Arising out of this study some demonstration is given of the development in childhood of attitudes which, later in life, influence not merely the choice of occupation but also the behavior within that occupation. However, let us examine various other studies on the topic.

According to Vernon Hall, teachers who aim to produce only academic results are considered to be the worst teachers, while those who had both an academic and personal influence were thought of as best.[16] The best teachers were therefore those who treated each student as an individual, and hence appeared to develop a very positive attitude toward the teacher and the subject taught. This does not appear to be challenged by other authors, and thus we might conclusively state that a warm, considerate teacher will engender a more positive attitude towards teachers than a strong dictatorial or "remote" type.

However, there are other factors which shape attitudes towards teachers, and one of these is the image of teachers as

14. Ibid., p. 138-139.
15. Ibid., p. 139.
16. Vernon C. Hall, op. cit., Vol. 34, p. 3.

depicted in comic strips, movies, plays, novels, and cartoons such
as those by Giles.

Andrew H. Erskine investigated the characterization
of teachers in forty-six Broadway plays presented between 1920 and
1950.[17] According to his study, teachers were characterized as
maladjusted in 68 per cent of the cases, as having economic
troubles in 37 per cent, as experiencing sexual tension in 33 per
cent, and as being poorly clothed in 19 per cent. Similar charac-
terizations of the teacher found in novels and movies can be seen
in the works of Foff,[18] Deegan,[19] and Gurko.[20]

Michael Belok and Fred Dowling sum up this phenomenon
with an article in Phi Delta Kappan. They state:

> "Thus researchers agree that there is much in
> various communications media that is extremely
> unfavorable in the depiction of teachers. If
> they are correct, and we see no reason to doubt
> it, is not the cumulative effect likely to be a
> significant one? As individuals read novels and
> magazines and view movies, aren't they likely to
> develop an unfavorable image of the teacher? And
> may not this unfavorable image tend to have a
> stronger effect on the young reader or viewer?
> Many young people lack the sophistication or acumen
> to assess this fictional image properly. It seems
> likely that they will have grave reservations about
> entering an occupation which is largely an object

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17. Andrew H. Erskine, "An Analysis and Evaluation of the Character-
ization of American Teachers in Broadway Productions, 1920-1950"
(Unpublished Doctor's Dissertation, New York University, 1951).
18. Arthur Foff, "Teacher Stereotypes in the American Novel"
(Unpublished Doctor's Dissertation, Stanford University, 1953).
19. Dorothy Yost Deegan,The Stereotype of the Single Women in
American Novels (New York: Kings Crown Press, 1951).
20. Leo Gurko, Heroes, Highbrows and the Popular Mind (New York:
The Bobbs-Merrill Co. Inc., 1953).

of ridicule or disdain." [21]

The authors go on to state in rather strong terms
that such an image has an effect upon both those in the profession
and those who are thinking of entering it. They believe that many
teachers have left teaching jobs because they felt that they were
oppressed or were thought of as "some sort of third-sexed creature".[22]

An article entitled Help Stamp Out Stereotypes by
Emeliza Swain in the American Vocational Journal (Vol. 42, No. 7)
supports this study. The author feels that while knowledge of
opportunities in occupations increases proportionately one's freedom
of choice, knowledge alone is not a guarantee that the individual
is truely free to choose. A person "adopts from people around him
attitudes which limit his freedom to consider certain alternative
choices." (p. 28) She goes on to state that it is the responsib-
ility of educators to study such obstacles to freedom and devise
effective procedures to increase freedom of choice for all indiv-
iduals.

Nor is the media-created attitude the only other factor
which fosters attitudes towards the teaching profession. Parents,
have a tendency to foster an attitude in their children towards
teachers by their own attitudes towards teachers and the educational
system. This is actually quite an indirect, and unconscious, process.

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21. Michael Belok and Fred Dowling, "The Teacher Image and the Teacher
    Shortage", Phi Delta Kappan (March, 1961), p. 256.

22. Ibid, p. 256.

Because parents have a certain conception of what the role of the teacher should be, the actions of the teacher are determined not only by the way in which he conceives his role, but also by the manner in which he believes that parents conceive of his role. Ultimately, the attitudes of children towards the teacher are indirectly developed by the parent. Musgrove and Taylor discovered that in emphasising instruction teachers were in line with what they thought parents expected and with what parents in fact expected.[23] This is especially interesting in light of the fact that it appears to be the very approach which students dislike most in a teacher, as we have seen from a previous study by Vernon C. Hall. Although this study found that different conceptions of the teacher's role by parents were dependent on various criteria such as social class, the grade level of the student, and the educational level of the parent, generally, they agreed that instruction was the most important role of the teacher. Thus other roles such as moral training, social training, or behavior training were accorded a much more secondary role, and by and large, teachers perceived this. This in no way suggests that there is any lack of discrepancy at all between teachers' aims and what they imagine to be parents' aims. This discrepancy is

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23. F. Musgrove and Philip H. Taylor, "Teachers' and Parents' Conceptions of the Teacher's Role", British Journal of Educational Psychology, Vol. 35, (June, 1965), p. 177.

still very large. As the authors state:

> "On the whole, teachers take an unflatter-
> ing view of parents (and their own aims
> are remarkably idealistic) seeing them as
> indifferent to moral training but very
> concerned with social advancement. In
> fact, parents were substantially in agree-
> ment with teachers. The area of (unnecessary)
> tension might be considerably reduced if
> parents and teachers established more effec-
> tive means of communication."[24]

A later study by Sieber and Wilder at Columbia University [25]
was more pessimistic about the area of potential conflict between
parents and educators over the appropriate role behavior of
teachers. The conclusion here differs from that of Musgrove and
Taylor in that the conflict develops not from a misunderstanding of
how parents perceive of the teachers role, but rather because of a
genuine difference in the expected role behavior. The authors
compared the preferences of mothers among four typical teaching
styles (control, content, discovery, sympathy) with the self-images
of their childrens' teachers. It was found that mothers prefer a
content-oriented style more often than any other, while a majority
of teachers see themselves as discovery-oriented. In addition, over
two-thirds of the mothers expressed role preferences that were not in
accord with the self-descriptions of the child's teacher. Hence, this
study contradicts the previous one in that instead of seeing teachers
as a group who will attempt to act in a manner in which they feel that

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24. Ibid, p. 178.
25. Sam D. Sieber and David E. Wilder, "Teaching Styles: Parental
Preferences and Professional Role Definitions", Sociology of
Education, Vol. 40, No. 4 (Fall of 1967) pp. 302-315.

parents would like them to act, they conduct the classroom in

the style which they themselves feel is appropriate to their

role as teacher. The effect of such conflict is not yet clear,

but as participation by parents in the school situation increases,

the conflict is likely to escalate.[26] There is no question, how-

ever, that parents are becoming more involved in the education of

their children,[27] and therefore will influence to a greater extent

their attitudes towards teachers.

The effect of attitudes on the prospective teacher

What effect will attitudes which have been formed in

youth have on the student as a potential teacher? We have already

seen that one effect will be that students will by-pass teaching

as a profession, or if they enter the profession, will eventually

be forced out because of the attitudes of others.[28]

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26. Although it is outside the scope of this work, it might
   be interesting to investigate whether students have taken
   sides in such a conflict-on the side of the teachers.

27. For a more complete examination of this question consult
   Winfield C. Scott, Clyde M. Hill, and Hobert W. Burns,
   The Great Debate-Our Schools in Crisis, (Englewood Cliffs,
   N.J.: Prentice-Hall, 1959), and also Administrators and
   Teachers' Reactions to Education Innovations (Institute
   for Development of Educational Activities), Melbourne,
   Florida). The latter has been summarized in the February
   1968 edition of School Progress, under the title, "Innova-
   tions and Education", pp. 14-17.

28. Belok and Dowling, op. cit., p. 256.

According to the study by Vernon C. Hall which we have previously discussed, education students will be motivated not to be like the teacher or to be better than the teacher they dislike most. Since they felt that the poor teacher was one who did not have an interest in students, they would, as teachers, show more interest in their students. But, their reaction appears to go further than this. Not only would they not show the same disinterest in the individual student as this teacher had, but they would not conduct their class in the same manner as this teacher, they would not arrange their class in a similar manner and would, it appears, do everything differently than this particular teacher. They seem to react not only to that element in his or her teaching which they disliked, but everything associated with the class he conducted.

Caroline Wasserman was particularly interested in discovering whether the experiences of the teacher as a student would influence his abilities to work with children, and whether it would effect his teaching in any way. While at San Francisco State College she did a study on this question[29] which was sparked by observing twenty elementary student teachers from the college. She found that as the student teachers took on more responsibility in the classroom and were left alone for longer periods of time, they found themselves forgetting all about what they had learned in teacher training, and began imitating

29. Caroline Wasserman, "Influence of Childhood Learning on Later Professional Competence", California Journal of Elementary Education, Vol. XXIX, (May, 1961) pp. 207-209.

the teaching methods of some teacher which they themselves had in elementary school. As the author states: "These student teachers were aware of an amnesia of training and a tendency to repeat patterns which they had experienced as children in school." [30] She began to realize that the approach to training people for teaching must be different from that in other professions since all learners have attended school. This led to an inquiry in which twelve full-time teachers were questioned. The data was collected through personal interviews in which the teacher was asked to 1) recall learning experiences of school subject matter in childhood, 2) discuss the relationship between childhood experiences and present relationships with children and adults in school settings, and 3) discuss any possible identification with childhood teacher and whether this related to her feelings and performance.[31]

The study suggested some generalizations of which the author gives the following examples:

1. When children like and identify with a teacher, learning is enhanced and is recognized years later by the individuals as significant.

2. Hated and feared teachers are vividly recalled years later and the impression serves as a basis for thinking of what teachers are or should be. The author believes that internalized images of disliked teachers may be one reason for the lack of wholehearted self respect among some members of the teaching profession.

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30. _Ibid_, p. 207.
31. _Ibid_, p. 208.

3. Consideration of childhood experiences in school might
   form a valuable part of both pre-service and in-service
   teacher training. Many things that teachers do and feel
   are conditioned by childhood experiences in school such
   as those that follow:

   A) Childhood learnings may block both the trainee's
   competency in a subject and his ability to learn and
   practice effective methods of teaching the subject.
   Awareness that such blocks in learning go back to child-
   hood experiences may be conducive to seeking the education
   needed in the subject.

   B) The reasons for inconsistencies between a teacher's
   attitude toward his chosen role and his feelings toward
   children are rooted in his childhood experiences.

   C) A teacher's training is sometimes forgotten when the
   teacher is teaching, not because the training is imprac-
   tical and visionary but because other factors relating to
   childhood learning have not been taken into account in
   the teacher training program, or overcome during that
   program.

4. Teacher training programs need to have ways of discovering
   where education is needed in subjects not learned in the
   first experiences with them, and the gaps that should be
   filled, so that the teacher will be able to follow his
   role as teacher with real mastery. In this process,

individuals may have as much to unlearn as they have

to learn, particularly the behavior indentifications

- which occurred in childhood from associations with

disliked teachers.

5. Teacher training programs need to utilize students'

identifications with the best liked, most learned from

teachers of their childhood, help the students to ana-

lyze what kinds of behavior and feelings belonged to

the teachers, and help the trainees to put these

identifications into practice. [32]

The measurement of attitudes in potential teachers

From what we have seen up to this point it is clear

that attitudes towards teaching are formed early in life, not

only from classroom experiences, but from other sources as well.

This being so, is there any way that a student's attitude to-

wards teaching can be measured before entering a teacher train-

ing program to determine if he is suited for such a profession?

Even if it is possible, should such an investigation be undertaken?

Will teacher training effectively cause a change in attitude? These

are a few of the questions on which we shall now focus our atten-

tion.

In 1951 Walter W. Cook, Carroll H. Leeds, and Robert

Callis developed The Minnesota Teacher Attitude Inventory (here-

after designated MTAI). It was designed to measure those attitudes

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32. Ibid, p. 209.

of a teacher which predict how well he will get along with pupils
in interpersonal relationships, and indirectly how well satisfied
he will be with teaching as a vocation. It is assumed that a
teacher ranking at the high end of the scale should be able to
maintain a state of harmonious relations with his pupils charac-
terized by mutual affection and sympathetic understanding. The
pupils should like the teacher and enjoy school work. The teacher
should like children and enjoy teaching.

At the other extreme of the scale is the teacher who
attempts to dominate the classroom. He may be successful and
rule with an iron hand, creating an atmosphere of tensions, fear,
and submission, or he may be unsuccessful and become nervous,
fearful and distraught in a classroom characterized by frustra-
tion, restlessness, inattention, lack of respect, and numerous
disciplinary problems. In either case both teacher and pupils
dislike school work and there is a feeling of mutual hostility.

The inventory consists of 150 statements in five areas:
Children's moral status, discipline problems, principles of child
development, principles of educational administration, and
teachers' personal reactions to children.

Subjects who take the inventory respond to each item on
a five-step scale: strongly agree, agree, uncertain, disagree, and
strongly disagree. On each item, weights of either + 1, 0 or - 1
are empirically assigned to five response categories; a single total

score is obtained for a subject by adding the weights of the 150 items.

Since its first publication there have been many studies on the inventory itself, especially to determine its validity. [33] Its major significance according to many authors, however, is in being able to determine if an individual has the proper attitude suited for the teaching profession.

A study reported by Douglas E. Scates, the editor of The Journal of Teacher Education, confirms this. [34] For example, he notes that elementary teachers with four years of college education tend to score significantly higher than those with two years of college education. Also, secondary school teachers with five or more years of college education scored the same as elementary teachers with four years. [35] This study was among the first to relate pupil opinions about their teachers with objective measures of teachers' characteristics, as measured by the MTAI. Findings in this area showed that the difference between average MTAI scores of fifty teachers liked best and fifty teachers liked least by

33. Fairly full bibliographies on studies on the MTAI will be found in Walter W. Cook, Carroll H. Leeds, and Robert Callis, The Minnesota Teacher Attitude Inventory Manual, (New York: The Psychological Corporation, 1951); and the Journal of Educational Research, Vol. 49, (May 1956), pp. 679-680, and 706-708.
34. W. W. Cook, N. C. Kearney, P. D. Roccio, and A. Thompson, "Significant Factors in Teachers' Classroom Attitudes", Journal of Teacher Education, Vol. 7 (1956), p. 274-279.
35. Ibid, p. 275.

pupils in the tenth and twelfth grades of four high schools, was

quite pronounced.[36] This indicates to some extent at least, that

the MTAI measures what it purports to measure. For it can be said

with some assurance that teachers who can maintain a good state of

interpersonal relations in the classroom will be better liked by

their pupils than those who are unable to maintain such relations.

Another indication of its potential predictive value

in selecting teachers is that in a group of 612 high-school

seniors who were administered the MTAI along with a personal data

sheet showing their present occupational preference, scores were

much higher for those who selected teaching as a vocation. In

fact, the 56 pupils who selected teaching had an average MTAI

score of 25.4; the 556 pupils who selected vocations other than

teaching had an average score of only 2.3.[37] As the author states:

> "The results here strongly suggest that
> scores on the MTAI give a measure of at
> least one factor among the cluster of
> characteristics that influence young
> people to become teachers and which sub-
> sequently is an important factor in
> making the good teacher."[38]

As a result of this, it might possibly be argued that

those with low MTAI scores be rejected from teacher training

institutions, or if accepted, be given a rigorous program in not

only an understanding of child behavior, but their own behavior

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36. Ibid, p. 278.

37. Ibid.

38. Ibid.

as well.[39]

Although no conclusive evidence exists at the present
time, a study was undertaken to determine if an individual has
a generalized attitude toward people, and if so, whether it can
be measured.[40] From the educational point of view, the raison
d'etre of this work had its genesis in the fact that since a
teacher deals in a wide variety of human relations, he must be
capable of working with pupils, parents and members of the commun-
ity if he is to be considered as a person acceptable for such a
profession. Hence, if an attitude does exist and if such an
attitude adversely affects human relations, it would be advantageous
for teacher training institutions to be aware of this when admitting
students to its program. Indications resulting from this study
point towards the fact that a possible generalized negative atti-
tude towards the actions of others may exist in some individuals.
However, the study is not conclusive, and research is still needed
in the relationship between this generalized attitude and the
individual's popularity in groups, his use of time, his stated goals
in life, and his ability and scholastic achievement.[41]

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39. It should be made clear that the authors of this study do not
   intend that the MTAI alone should be used as a criterion for
   teacher selection, but that it should be employed as part of a
   comprehensive program that provides many progressive opportun-
   ities for observation and evaluation of the student as a
   future teacher.
40. Donald C. Clifton, Farrell L. Hollingsworth, and William E. Hall,
   "A Projective Technique for Measuring Positive and Negative
   Attitudes Towards People in a Real-Life Situation", Journal of
   Education Psychology, Vol. 43, (May, 1952), pp. 273-283.
41. Ibid, p. 282.

James V. Mitchell, Professor of Education at the
University of Rochester investigated whether different motives
for entering teaching are related in psychologically meaningful
ways to basic personality characteristics which might have some
bearing on the classroom behavior of the teacher. [42] He developed
a "questionnaire for prospective teachers", consisting of fourteen
statements describing possible reasons for enrolling in a teacher
preparation program. These statements are listed as follows: [43]

1. The prospect of being able to direct and mold the learning
   and thinking of a group of youngsters (or adolescents) is
   one that appeals to me.

2. In a real sense I didn't choose teaching as a profession;
   through a series of chance factors I "drifted" into the
   teacher preparation program.

3. Teaching offers a certain freedom that is not character-
   istic of other professions or occupations.

4. The vacation periods associated with teaching provide
   greater opportunities for a "break" in the occupational
   grind and for a richer and more varied life.

5. I enjoy working with children (or adolescents).

6. Having training as a teacher will be helpful in the early
   stages of marriage and will provide a sense of security
   later on.

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42. James V. Mitchell, "Personality Characteristics Associated with
    Motives for Entering Teaching", Phi Delta Kappan, Vol. XLVI, No.
    10 (June, 1965).
43. We have chosen to include the complete list here because of the
    very interesting similarities between it and a number of the
    essay responses to the questionnaire as found in chapter four.

7. Teaching offers so many more opportunities for creativity than the typical job.

8. Teaching is not my first occupational choice, but for me it is a more "practical" goal than some other occupation I might choose.

9. I like my subject matter area very much, and want to "get it across" to others.

10. The teacher training program provides one with the opportunity for getting a bachelor's degree without overspecializing or getting involved in too-difficult courses.

11. My parents have strongly encouraged me to go into teaching.

12. Through teaching a person can make some worthwhile social contributions.

13. Because of tenure and other aspects of teaching, the teacher has a greater sense of personal security.

14. Teaching has been a kind of tradition in our family, since many members of the family have gone into teaching at one time or another, and teaching seemed to be a very natural occupational choice for me. [44]

The subject was instructed to use a five-point scale for each statement to indicate whether it describes a totally unimportant, quite unimportant, moderately important, quite important, or extremely important reason for enrolling in the teacher preparation program.

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44. Mitchell, op cit., p. 529.

While we shall not examine here the method used to evaluate the answers,[45] we shall look at some of the results.

Those who are interested in the secondary level of teaching and who were determined by the test as practically oriented, exhibit such characteristics as submissiveness, apprehension and insecurity, tension, and general anxiety. Associated with the same orientation at the elementary level is the dimension of toughmindedness--which would seem to be quite inappropriate for the elementary school teacher.[46]

> "Thus there is the strong suggestion in the data that those whose motivations for entering teaching are primarily of a practical nature are poor risks not only in terms of their motivational structure but in terms of their personality characteristics as well."[47]

The study also indicated that the child oriented tend to be the most sociable and warmhearted, and to be the most enthusiastic subgroup within the elementary group as well. On the other hand, the subject oriented tend to be the most dominant and self-disciplined and the least sociable. The practically oriented subgroup has the least superego strength and the most tension within the secondary group and is the least self-disciplined and again the most tension-ridden within the total group.[48]

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45. *Ibid*, p. 530.
46. *Ibid*, p. 531.
47. *Ibid*.
48. *Ibid*, p. 532.

The author concludes this study with certain implications which may be applicable to teacher training in Nova Scotia. He suggests that motives for entering teaching do appear to be integrally related to basic personality characteristics and the nature of these relationships seems to be quite different for prospective elementary and secondary teachers. The author states:

> "There is strong evidence that these personality characteristics have influenced reasons for entering teaching and even choice of teaching level, and there seems little doubt that the different characteristics associated with the various motives will have a determining influence on the skills, interests, and teaching styles of the prospective teachers in question."[49]

While he concedes that most of these diverse motives and personality characteristics are not to be thought of as unacceptable for a teacher, he does see one major exception. This is to be found in the set of results obtained from the practically oriented group. Professor Mitchell stresses that a conscientious and self-disciplined attitude toward one's work and the absence of a great deal of tension and anxiety would seem to constitute important and minimal requirements for teaching and yet these are the very qualities that the practically oriented person at the secondary level is less likely to possess. He feels that this could become a very serious issue and one that should engage the attention of those responsible for the selection and training of prospective teachers.

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49. _Ibid_, p. 532.

Teacher education and attitude change

From the studies presented above it would appear that
there are certain personality characteristics and attitudes which
an individual should have to become a teacher. We have also seen
that to some extent such attitudes can be measured, although
there are indications that the process is not refined at this time.
If, however, it became possible clearly and accurately to measure
a prospective teacher's attitude towards all the various aspects
of the profession, would it be a valid thing to reject a candidate
because he does not have the proper attitude?

An affirmative answer might indeed be valid, if, included
with it, is the qualification that teacher training does little to
change attitudes. Many studies have been conducted on the effects
of teacher training on the attitudes of both student teachers and
those who have been teaching for some time. We shall therefore
examine various studies related to the topic of attitude change in
the teacher education student, and specifically will examine some
of the factors (e.g. practice teaching) which bring about this atti-
tude change.

A study by G. A. Pinckney in 1962[50] concluded that un-
favorable attitudes towards children will remain unless education

50. G. A. Pinckney, "Changes in Student Teachers' Attitudes Toward
    Childhood Behavior Problems", Journal of Educational Psychology,
    Vol. 53 (December, 1962) pp. 275-278.

students take some courses in psychology. Since he found that many past studies[51] pointed to the fact that a greater understanding of the behavior problems of young children were needed on the part of student teachers, (shown especially in the study by E. K. Wickman in 1928),[52] Pinckney decided to examine the problem more closely.

His study was designed, therefore, to investigate the extent to which changes in rating of childhood behavior problems are related to the experience in psychology courses for teachers' college students. Two groups of students from the University of Nebraska were selected, one an experimental group of 203 undergraduate students enrolled in introductory education psychology courses in Teachers College, and the other a control group composed of 58 students enrolled in the same college, but who had

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51. For example, R. T. Amos and R. M. Washington, "A Comparison of Pupil and Teacher Perceptions of Pupil Problems", Journal of Educational Psychology, Vol. 51 (1960) pp. 255-258; N. L. Gage and G. Suci, "Social Perception and Teacher-Pupil Relations", Journal of Education Psychology, Vol. 42 (1951), pp. 144-152; N. E. Gronland, "The Accuracy of Teachers' Judgements Concerning the Sociometric Status of Sixth Grade Pupils", Sociometry, Vol. 13 (1950), pp. 197-225; E. C. Hunter, "Changes in Teachers' Attitudes Toward Children's Behavior Over the Last Thirty Years", Mental Hygiene, Vol. 41, (1957), pp. 3-11.

52. E.K. Wickman, Children's Behavior and Teachers' Attitudes (New York: Commonwealth Fund, 1928). In this work the author found that teacher ratings of the seriousness of fifty behavior problems correlated negatively with ratings given by thirty clinicians. (p. 275).

not taken coursework in any area of psychology. Students in both
groups were planning for careers in the teaching profession.

The results of the study show that the attitudes of
the experimental group toward childhood behavior problems changed
to a significant degree, while no such change was apparent in the
control group. The data would tend to substantiate the hypothesis
that psychology courses may play a significant role in the formula-
tion of teachers' attitudes toward childhood behavior problems.[53]

There appears to be some disagreement, however, on the
effect that simply "taking a course" will have on attitude change.
Some authors contend that simply because an individual is aware of
the complicated organization underlying the behavior of young
people, it does not necessarily follow that this will change his
attitude towards the young. This argument is based on the fact
that some type of "involvement" in a course is necessary to change
attitudes, and that a purely objective study will not develop any
resultant attitude change.

Paul Ward and John Bailey of the College of Education at
the University of Nevada made this the hypothesis of a study connec-
ted with counselor education programs.[54]

53. Pinckney, op. cit., p. 278.
54. Paul Ward and John A. Bailey, "Community Participation and
    Attitudinal Changes Among Teacher Education Students", Personnel
    and Guidance Journal, Vol. 44, No. 6, (1966), pp. 628-630.

Of the fifty-two junior-undergraduate students who
were enrolled in the compulsory "Introduction to Guidance and
Counseling" course, forty-two selected the option of working
co-operatively with youth-assisted agencies of the Reno
Community for no less than 30 clock hours during the semester.
The remaining 10 students, who did not work directly with youth
groups, focused on each of Cribbins 15 principles of guidance,
summarized a journal article that related to each principle,
and reported their reactions in the form of a term paper.

At the beginning of the course, the MTAI was admin-
istered to all the students in the course, and after the fall
semester, was readministered to the students in the two sections
of the course.

The results of the study showed that the attitude
measure of the group involved in community work increased signif-
icantly, while those in the library group had little attitude
change toward youth groups.[55]

The authors state:

"As a result of the community participation
approach to the beginning guidance course,
youth groups functioned more actively. The
cry for youth leaders was greatly lessened
because university students sought out groups
to serve. Local agencies, including the mass
media, responded positively to the closer
relationship between the university and the
community.
...Once involved in the work with youth groups,
students became interested and concerned about
the activities of youngsters. Although the
introductory course is now completed, many
students are continuing to meet and work with
teenagers." [56]

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55. Ibid, p. 629.
56. Ibid.

It also appears that voluntary discussion groups in teacher training programs effect student teacher's attitudes. A study conducted in 1962 by Stasia M. Ziobrowski of Queens College, New York was reported in the Association for Student Teaching Yearbook.[57]

The teacher education groups, one, an experimental sample of 24 students who participated in voluntary discussions,[58] and the second, a control sample of 104 students who showed no interest and did not participate in such discussions, were administered the MTAI and other tests[59] before and after the teacher training program.

The results of this study showed that the group discussions did help to develop more positive attitudes and better understandings of children. They helped the students to look for causes of behavior. The students of the experimental sample, at the end of the study, favored fewer techniques involving fear and tension and leaned more towards the developing of attitudes of mutual respect. They showed

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57. Stasia M. Ziobrowski, "Guidance in Development of Students Attitudes Toward Teaching", The Association for Student Teaching, Forty-First Yearbook, (1962), pp. 71-74.

58. These discussion groups were composed of from six to nine members and met for fifty minutes each week. They were not formal in any way, and covered a wide variety of topics. They usually focused on problems that students were encountering in their teaching experiences. The psychologists connected with the department acted as discussion leaders.

59. These other tests included "The Problems of Child Behavior Test", "The Gordon Personal Profile", and the "Gordon Personal Inventory."

less punitive attitudes and began to see less value in moralizing
and "telling" approaches in dealing with children. Great emphasis
on supportive and encouraging measures was shown. On the other
hand, the author is careful to note that such basic and deep-
seated personality patterns and attitudes as the ability to trust,
understand, and relate to other people and the ability to work
more effectively with them were not altered in this brief period
of time. The author concludes by stating:

> "If education needs to be concerned with
> attitudes and how to change them, then it
> is important to look at how this is being
> done. The study, although a small one,
> seems to support other studies indicating
> that the more personalized and informal
> groups are, the more instrumental they
> are in modifying attitudes."[60]

Professor L. Scobbie has described to us a similar type
of seminar he conducted in England in which his approach was one
of free explanation of professional aims, techniques, personal
reactions and so on, covering the whole aspect of the teacher's
personal reaction to professional life.

A Doctor of Education dissertation completed in 1961 by
Corrigan and Griswold at Columbia University[61] attempted to deter-
mine the expressed attitude change of student teachers, during
student teaching experience, toward three principles of education
held to be important in guiding learning opportunities. These three
principles were: 1) The learner's purposes are recognized and util-

60. Ziobrowski, op. cit., p. 73.
61. D. Corrigan and K. Griswold, "Attitude Change of Student Teachers",
    Journal of Educational Research, Vol. 57 (October, 1963), pp. 93-95.

ized, 2) The learner engages in problem solving, and 3) The learner
is helped to develop generalizations which he can apply in a variety
of life situations.[62]

Results of the study showed that the following factors
caused attitude changes:

1) The college supervisor and the seminar which he directed.
   All of the student teachers mentioning the seminar as a
   cause for modification in attitude, changed in a positive
   direction. Most of them perceived the seminar as the place
   in the program where they had the opportunity to clarify
   further the concepts they were developing through their
   direct experiences. [63]

2) The quality of the co-operating teacher as determined by
   the student teacher.
   Students assigned to teachers whom they rated as average
   made positive gains three times as great as those assigned
   to teachers rated below average. On the other hand, the
   authors note that students working with teachers rated
   superior showed a smaller positive mean attitude change
   than those with teachers rated average. [64]

3) The number of placements which a student teacher had during
   the semester in different grade levels and/or schools.
   Those students who had two or more placements showed rela-
   tively no change or a slight negative mean change while those

62. Ibid, p. 93.
63. Ibid, p. 94.
64. Ibid, p. 94.

who spent the semester with one co-operating teacher in one grade
level showed a positive mean change.[65]

4) A high positive change for students teaching in the lower
grades and less positive or a negative change for those work-
ing in the upper grades.

5) A high positive change of students whose under-graduate field
of study was in an area other than psychology or sociology,
and less positive or a negative change with students having
a major in psychology or sociology.

6) A slightly higher positive change for younger students than
older students.[66]

H. J. Butcher of the Department of Psychology, University
of Edinburgh, conducted an interesting study on attitude changes of
student teachers.[67]

Attitude scales of naturalism, radicalism and tender-
mindedness in education were administered to a representative
sample of 300 serving teachers and also to three groups of student
teachers, including both students in Training Colleges and graduate
students in a University Department of Education. Quite significant
differences in attitude between serving teachers and student teachers

65. Ibid, p. 94.
66. Ibid, p. 95.
67. H. J. Butcher, "The Attitudes of Student Teachers To Education:
    A Comparison with the Attitudes of Experienced Teachers and a
    Study of Changes During the Training Course", British Journal of
    Social and Clinical Psychology, Vol. 4 (1965) pp. 17-24.

were found on all three scales.[68] Student teachers tended to become more naturalist, more radical and more tender-minded during the course of training.

A follow up study to Butcher's by MacIntyre and Morrison in 1967 corroborate[69] those obtained from the earlier study. Here the authors have also found a general trend during training towards increased naturalism, radicalism and tender-mindedness in educational opinions.[70]

However, the authors went further and discovered relationships between opinions and political allegiance and religious feeling. Although there were inconsistencies, the naturalism scale appeared to be the one most closely associated with religious beliefs and habits and the radicalism scale the most closely related to political allegiance. No clear pattern of associations was apparent for the tender-mindedness scale.[71]

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68. The effect that teacher education has on the attitudes of teachers who have had one or more years experience will be examined in a later section of this chapter. At present we shall concentrate only on attitude change in student teachers.

69. D. McIntyre and A. Morrison, "The Educational Opinions of Teachers in Training", British Journal of Social and Clinical Psychology, Vol. 6 (1966), pp. 32-37.

70. Ibid, p. 36.

71. Ibid,

In 1966 the <u>Journal of Educational Research</u> reported
on an Ed. D. dissertation by A. J. Brim of the University of
Denver.[72] The major purpose of the study was to determine the
effect of a teacher education program upon the attitudes of under-
graduate students toward children. At the beginning and end of a
fall quarter the MTAI was administered to 250 undergraduate
teacher education students in the various levels of the professional
programs[73] at the University of Denver. Pre-test and post-test scores
were compared. Thirty-two students who demonstrated the greatest
change in score were interviewed in an effort to determine causes
of change.

The findings indicate that the population of 250 students
in the total teacher education program did change in attitude mean
scores and variances during the fall quarter in which the study was
conducted. On an individual basis the direction of change varied
from person to person but there was a highly significant overall
change to a higher attitude mean (more liberal in attitude toward
children) on the MTAI.

Of the thirty-two students mentioned above, personal
interviews revealed that the most characteristic reason for changing
attitudes toward children were based on laboratory (practice teach-
ing) experiences. Every student who had observed in the public

72. A. J. Brim, "Attitude Changes in Teacher Education Students",
    <u>Journal of Educational Research</u>, Vol. 59, No. 10 (1966) pp. 441-445.

73. The professional education courses at the University of Denver
    were taken upon completion of a general education program which
    required two years. These courses began in the junior year and
    were usually taken in a sequence that extended through senior year.

school classroom suggested that this was at least one of the major causes of change.

Twenty-two subjects said that the kind of encounter with the lab experience which produced change were observations of children in action in the classroom and on the playground. Two respondents indicated that they were given opportunities to observe in classrooms other than the one to which they were assigned for their lab experiences. In both cases this was believed to have been instrumental in producing attitude change.

Many subjects said that their attitudes toward children were changed by having observed the supervising teacher's interaction with children - e.g., teaching remedial reading, disciplining a child, giving assignments, and directing playground activities. Many of the interviewees said their attitudes were altered by direct interactions with children, while in almost all cases it appeared that the greatest amount of change occurred early in the teacher education program.

Practice teaching and attitude change

Since many of the studies we have examined so far seem to agree that some sort of involvement with young people by the student teacher is essential in attitude change, let us now specifically see to what extent practice teaching will affect this change.

Donald L. Lantz of the University of South Florida observed that student teachers appear to express mixed feelings of various

sorts prior to their student teaching experience, but at the conclusion express great appreciation and gratitude. He therefore conducted a study to estimate to what extent changes occurred in the students' self-concept during student-teaching, and also to what extent changes occurred in the student's concepts of other elementary teachers and of the ideal elementary teacher.[74]

The subjects were thirty-six women elementary majors who were student teaching during the 1958-1959 academic year. The instrument used to assess self-concept and perceptions of others was a modified Interpersonal Check List (ICL), which provided an organized way in which to deal with what a subject says about himself and others. It is composed of sixteen scales[75] of interpersonal behavior frequently combined and used as octant scales. The ICL was modified for this study so that a subject indicated how often an adjective or phrase was characteristic of him. The modified ICL was administered to the student-teachers prior to and immediately following their student-teaching experience, asking them to rate themselves, most other elementary teachers, and the ideal elementary teacher.[76]

The results showed that student teachers' mean scores for

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74. Donald L. Lantz, "Changes in Student Teachers' Concepts of Self and Other", Journal of Teacher Education, Vol. 15 (June, 1964), pp. 200-203.

75. Managerial - Autocratic
    Competitive - Exploitive
    Blunt - Aggressive
    Skeptical - Distrustful
    Modest - Self-effacing
    Docile - Dependent
    Co-operative - Overconventional
    Responsible - Overgenerous

76. The reliability of this study is discussed on pages 201-202 of the Journal of Teacher Education.

self-concepts changed significantly on three scales of the modified
ICL. These three scales were (1) Skeptical-Distrustful, (2) Modest-
Self-effacing, and (3) Co-operative-Overconventional. In each case
the students perceived themselves lower in these areas of inter-
personal relations after their student-teaching experience than
before.[77]

The student teachers' mean scores for concepts of other
elementary teachers changed significantly on three scales of the ICL
also. These were: (1) Blunt-Aggressive, (2) Skeptical-Distrustful,
and (3) Modest-Self-effacing. In each case the student teacher per-
ceived other elementary teachers as being less characteristic in
these areas of interpersonal relations after their student-teaching
experience than before.[78]

The mean score for ratings of concepts of the ideal ele-
mentary teachers changed significantly on three scales of the ICL.
The scales in which there were significant changes were: (1) Skep-
tical-Distrustful, (2) Co-operative-Overconventional and (3) Respon-
sible-Overgenerous. In each case the mean score was significantly
less on the post-test than on the pre-test.[79]

Student teachers' concepts of self were significantly
lower on the Skeptical-Distrustful Scale, indicating, according to
the author, that student teachers learned to perceive themselves as
being more trustful and accepting in their interpersonal behavior.

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77. Lantz, op. cit., p. 202.
78. Ibid, p. 202.
79. Ibid,

He also feels that since students perceived themselves significantly
lower on the Modest-Self-effacing Scale, this may indicate that the
student teachers gained new insights of themselves and described
themselves with less intensity of depreciation. The fact that
student teachers' concepts of themselves changed significantly less
on the co-operative-Overconventional Scale during their student
teaching experience, is interpreted by Dr. Lantz to mean that
student teachers felt more idealistic than realistic before student
teaching.

The author sums up the study by stating that student-
teaching experience not only results in quantitative changes that
may be measured in terms of skills and new understandings developed,
but also in terms of qualitative changes related to the self-concept
and concepts of others. He believes, furthermore, that if self-
concept and concepts of others are important determinants in teach-
ing behavior, then, in placing students in student-teaching situa-
tions, care be taken not only to place them where we believe they can
gain necessary skills and understanding but also in non-threatening
situations[80] where their self-concepts and concepts of others may be

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80. The author basis this on research in self-theory, especially
D. M. Taylor, "Consistency of Self-Concept", Dissertation
Abstracts, Vol. 13, 1267. Such research had indicated that
the concept of self is relatively stable and that changes in
the external environment other than traumatic or euphoric
experiences do not usually alter the self-concept to any great
degree. Positive changes do occur in self-concept, but these
changes occur slowly in a non-threatening environment.

able to change.

Dr. Joe A. Howell conducted a study on student teaching
to discover what teachers with and without student teaching exper-
ience thought of it.[81] The results of a questionnaire distributed
revealed that every teacher who had experienced student teaching
believed his first year of teaching was definitely easier due to
that course. Even a majority of those teachers who had entered
the profession without student teaching said they believed this
first year was more difficult due to their failure to have had
student teaching.[82] Results also indicated that teachers consid-
ered a block of practice teaching (two weeks or one month) more
beneficial than part time teaching (one or two hours per day).

In 1965 Newsome, Gentry and Stevens also discovered in
their research that student-teaching experiences affect students'
ideas about education.[83] The question of whether students as a
whole and/or by classifications gain or lose in consistency of
ideas about education as a result of their student-teaching exper-
iences, was the main concern of the authors.

A group of seniors in the University of Georgia who
were eligible for student teaching in the spring quarter of 1964

81. Joe A. Howell, "Student Teaching-Is it Helpful?" Virginia
    Journal of Education, Vol. 58 (April, 1965), pp. 15-16.
82. Ibid, p. 216.
83. George L. Newsome, Harold W. Gentry and Lester D. Stephens,
    "Changes in Consistency of Educational Ideas Attributable to
    Student-Teaching Experiences", Journal of Teacher Education,
    Vol. 16, (September 1965), pp. 319-323.

were selected as subjects for the study. The group comprised 62

elementary and 68 secondary education majors, the latter sub-

divided in 25 social studies, 32 English and 11 mathematics.

The GNC scale[84] was administered to the students during the last

week of the winter quarter just prior to their entrance into a

full-time assignment in student teaching; they were tested again

at the end of the spring quarter when they had completed student

teaching.

Results of this study reveal that undergraduate students

enrolled in teacher education programs at the University of Georgia

enter student teaching with consistent ideas about education.

Although some groups are more consistent than others, all groups

in this study were consistent in the empirical rather than the ration-

alistic school of thought.[85]

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84. The GNC Scale is a test of logical consistency of ideas about
education. It consists of 100 items representing rationalistic
(classical) and empirical (scientific) philosophies. Since all
of the items are related to educational contexts (aims, methods,
discipline, and the like), the scale does not presuppose special
training in philosophy. The items are printed on cards which
respondents are asked to sort into ten graduations from "most
like" to "least like" the ideal teacher. Its reliability and
validity is supported by D.B. Gorvin, G. L. Newsome, and K. A.
Chandler, "A Scale to Study Logical Consistency of Ideas about
Education", The Journal of Psychology, Vol. 51 (1961) pp. 443-455;
and G. L. Newsome, and W. Harold, "A Factor Analysis of the GNC
Scale", The Journal of Psychology, Vol. 59 (1964), pp. 437-444.

85. Newsome, Gentry and Stephens, op. cit., p. 322.

Statistically significant losses in consistency after
student teaching occurred in the total group and in the three sub-
groups. These losses suggest that student-teaching experiences do
affect students' ideas about education.

The loss in consistency among social studies and English
majors was much more significant than the loss in the elementary
group, a fact which the authors find difficult to explain.[86]
However, they do offer the following possibility:

> "Considering some of the typical teaching
> problems that face secondary school teachers
> of required courses in English and Social
> Studies, there is reason to suspect that
> their ideas about education are more fre-
> quently and more seriously challenged than
> are those of the elementary school teacher." [87]

In December of 1966 a study similar to the above was
undertaken to explore the attitudes of student teachers in ele-
mentary education before and after their student teaching experience
in an effort to determine whether attitudinal change had occurred.[88]
Forty-four senior students enrolled as student teachers in elemen-
tary education at Indiana University were administered a situational
type attitude scale[89] at the beginning and again at the end of their

86. _Ibid_, p. 323.
87. _Ibid_.
88. Edra E. Lipscomb, "A Study of the Attitudes of Student Teachers in
    Elementary Education", _The Journal of Educational Research_, Vol. 60,
    No. 4 (December, 1966), pp. 159-163.
89. This test designed by the author became known as the Lipscombe-
    Teacher Attitude Scale. A discussion of how it was constructed,
    as well as its reliability may be found on pp. 160-162.

student teaching, to investigate, specifically, the attitudes of
student teachers toward children, toward the role of the teacher
and toward curriculum practices.

The results showed that forty-one of the forty-four
students showed attitudinal change which was significant, and that
this change was in a positive direction. The author, however,
points out the limitation of the study by stating that this atti-
tude change might conceivably have been the result of the entire
program, and not just the practice teaching experience.

Garth Sorenson and Ruth Halpert were particularly
concerned with those factors in practice teaching which make it
either successful or not for the student teacher. The hypothesis
of their study[90] was that teacher candidates who see themselves
as having beliefs about teaching which are different from those
of their supervising teachers are likely to experience discomfort.
If this were true, they also wanted to provide information about
the manifestations of that discomfort and what might be done to
reduce it.

To get such information a questionnaire[91] was distrib-
uted to 248 student teachers at UCLA. Of these, 104 were working
for the elementary credential, 143 for the secondary credential,
and one student was a candidate for both simultaneously. There
were 67 men and 181 women.

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90. Garth Sorenson and Ruth Halpert, "Stress in Student Teaching",
    California Journal of Educational Research, Vol. XIX, No. 1,
    (January, 1968) pp. 28-33.
91. For an explanation of how this questionnaire was developed,
    see page 29 of the above mentioned study.

Results of the study[92] show that approximately seventy per cent of the subjects reported that they had experienced considerable psychological discomfort at the beginning of their assignment. Twenty per cent of the subjects reported that they still experienced a good deal of discomfort at the end.[93]

The authors note that the discomfort which candidates attributed to practice teaching appeared in two somewhat independent patterns. In one pattern a candidate experienced symptoms of physical discomfort and irritability-increased fatigue, changes in eating habits, increased nervous manifestations such as smoking or nail biting, loss of sleep, arguments with roommates or family, difficulties with studies and feelings of being unable to cope.[94]

Or the discomfort took a second form, that of feelings of personal inadequacy and uncertainty about the teacher role. In such form the candidate feared he was not capable of becoming a teacher, or was not doing a good job in student teaching. He said that he had lost his self-confidence, felt a lack of specific techniques to guide him in the classroom, believed he could never do as well as his supervising teacher, saw himself as inadequately prepared to teach the subject he was assigned to teach, and was unclear about what is expected of him in the classroom.[95]

92. The results are reported in depth by Ruth L. Halpert, "A Study of the Sources, Manifestations, and Magnitude of Stress Among Student Teachers at UCLA", (Unpublished Doctoral Dissertation, University of California, Los Angeles, 1966.

93. Sorenson and Halpert, op cit., p. 30.

94. Ibid, p. 30.

95. Ibid.

The authors then went on to examine the sources of such
discomfort, and found that approximately sixty per cent of the
candidates reported that at least part of the time they disagreed
with their supervising teachers about what and how to teach. The
authors explain:

> "The disagreement covered such matters as
> the handling of individual differences among
> students, the importance of record keeping,
> the use of competition among students as an
> incentive for learning, the standards of
> student behavior during class, the degree of
> formality or informality of relations between
> student and teacher, the way students used free
> classtime, approved ways to conduct class dis-
> cussions, the handling of classroom routines
> and handling of student criticism, the format
> and importance of lesson plans, the proper
> standards of teacher dress, grading standards,
> and disciplinary methods."[96]

Besides these overt differences of opinion between
student teacher and supervising teacher, there was also a second
pattern of disagreement, in which there were perceived differences
in personality between teacher candidate and supervising teacher.
Such a pattern was defined by such responses to the questionnaire as
"I feel that my training teacher and I...are two different kinds of
people; have different interests, personality, characteristics,
likes and dislikes; I do not get along well with my training teacher;
I rarely talk to my training teacher about matters above and beyond
the classroom experience; I am not receiving enough positive rein-
forcement or encouragement from my training teacher." [97]

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96. _Ibid_, p. 31.
97. _Ibid_.

There were also, according to the authors, some indica-
tions from the data that role disagreement is more important in
producing stress in men than in women and that perceived person-
ality differences may be more important in producing stress in
women than in men.[98]

The authors conclude this study by stating:

"Severe discomfort in student teaching
probably does not inevitably lead to
feelings of failure. Although we have
no data on this specific point, it seems
likely that the candidate who experiences
apprehension and overcomes it probably
feels stronger as a result, while the one
who fails to overcome his apprehensions
suffers a loss of self-confidence. It is
our tentative conclusion that whether the
apprehension which most prospective teachers
experience in the early stages of practice
teaching is quickly overcome or whether it
persists will be determined in part by the
relationship between candidate and super-
vising teacher.....It would seem reasonable
to conclude that further attention to the
relationship between teacher candidates and
supervising teachers is warranted."[99]

This relationship was further examined by Dr. Elmer
Jacobs, of Elmhurst College in Elmhurst, Illinois.[100] The
Valenti-Nelson Survey of Teaching Practices[101] was administered to

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98. Ibid, p. 32.
99. Ibid, p. 33.
100. Elmer B. Jacobs, "Attitude Change in Teacher Education: An Inquiry
     into the Role of Attitudes in Changing Teacher Behavior", The
     Journal of Teacher Education,Vol. XIX, No.4(Winter 1968) pp. 410-415.
101. This survey is an opinion inventory of 102 questions designed to
     evaluate the attitudes with which teachers, administrators, and pro-
     spective teachers view certain problem areas pertaining to the social
     role of the teacher. It provides alternative methods of handling the
     problems that reflect four basic points of view along an inter-personal
     attitude continuum ranging from rather rigid authoritarian attitudes to
     liberal, group-oriented, democratic points of view.
     A further description of this survey may be seen in: Japer J. Valent,
     "Measuring Educational Leadership Attitudes", (Research report presented
     at the Minnesota Society for the Study of Education, Minneapolis, March,
     1951).

1,007 students, 550 of whom were enrolled in initial professional

education courses and 457 in the student-teaching semester, at

five teacher education institutions. The scales were administered

twice, once at the beginning, and once at the end of the semester,

and changes in scores calculated for each respondent.

Results of the study reveal that a significant relation-

ship exists between the student teachers' perceptions of their co-

operating teachers[102] and their changes away from group-oriented

democratic responses. There appears to be an association between

lower perception scores reported by the respondents and higher

changes away from the more democratic points of view.[103]

However, no significant relationships were found to exist

between the students' perceptions of the college instructors and

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102. An interesting study by Leon T. Ofchus and William J. Gnagey,
     "Factors Related to the Shift of Professional Attitudes of
     Students in Teacher Education", Journal of Educational Psychology,
     Vol. 54, No. 3 (June, 1963), pp. 149-153, reveals that the
     student teacher's perception of the co-operating teacher is
     related to his perception of his parents. It was found in this
     study that students who rated their mothers as relatively un-
     critical of them perceived their instructor to be significantly
     more permissive than did students who rated their mothers as
     relatively supercritical of them. The same was true of a similar
     rating of their fathers. Students who rated their mothers as
     being highly concerned about their well-being perceived the instruc-
     tor to be significantly more permissive than students who rated
     their mothers as relatively low in concern for them. This rela-
     tionship, however, did not hold for ratings of their fathers.
     (pp. 152-153).

103. Jacobs, op. cit., p. 412.

their changes in attitude.[104]

J. S. Johnson presented additional information on this relationship between student teacher and supervising teacher.[105] His study was specifically conducted to determine if change in student teacher dogmatism during the student teaching experience was a function of the degree of dogmatism of the supervising teacher.

Rokeach's Dogmatism Scale, Form E,[106] was administered to eighty college seniors who were enrolled for off-campus student teaching at George Peabody College for teachers, just prior to the beginning of the student teaching experience and again at the conclusion of the ten week period of student teaching. The Dogmatism

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104. <u>Ibid</u>, p. 411.
105. James S. Johnson, "Change in Student Teacher Dogmatism", <u>Journal of Educational Research</u>, Vol. LXII (January, 1969), pp. 224-226.

106. This scale consists of forty statements which measure individual differences in openess and closedness of belief systems. The scale is scored by the method of summated ratings-the higher the score, the greater the degree of closed-mindedness. The scale is such that subjects respond to each item by means of a six-element key ranging from "I agree with the statement" to "I disagree with the statement". Scores might range from 40-280, a high score representing extreme closed-mindedness and a low score indicating an open mind. High scores are considered dogmatic and unreceptive to new ideas; low scores are considered flexible, adaptive, and receptive to new ideas.

For further information consult Milton Rokeach, <u>The Open and Closed Mind</u> (New York: Harper and Brothers, 1959), pp. 71-80.

Scale was also completed by each of the eighty co-operating school supervising teachers at a convenient time for him during the same ten week period.

The results provide strong evidence that the change in the degree of open and closed-mindedness of the student teacher subjects may be a function of the dogmatism of their supervising teacher. The findings also show a significant change in the dogmatism scores of the subjects during the student teaching experience as measured by Rokeach's Dogmatism Scale.[107] The author feels that this may be very significant in the training of teachers and states:

> "Accepting the contention that open-minded-
> ness is a desirable personality characteris-
> tic of the prospective teacher, the implica-
> tion from this study would be that great care
> should be exercised when placing a student
> teacher with a supervising teacher.[108]

These results appear to confirm those of an early study by Kropp and Anderson on the same topic.[109] Their results indicated that while interns' conceptions of the ideal role of the teacher change very little during the semester in which they practice teach, nevertheless, their conception of the ideal role at the end of the semester are slightly more in agreement than are their ideal roles in the beginning, with the ideal roles stated by the directing and methods teachers. However, their similarity is greater with their

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107. Johnson, op. cit., p. 226.

108. Ibid, p. 226.

109. R. P. Kropp, and J. E. Anderson, "Teacher Roles Before and After Internship" Journal of Educational Research, Vol. 56, (March, 1963), pp. 366-369.

directing teachers than with their methods teachers both in the beginning and in the end.[110]

Another interesting result of this study was the finding that the directing teachers and the methods teachers were only on moderate agreement about the ideal role of the teacher, and that directing teachers and methods teachers were even in less agreement about the actual role of the teacher.[111]

The authors believe, however, that even though the co-operating teacher does have some effect on attitude development, they feel that the internship semester does not have that great an effect. The authors state:

> "Perhaps this is attributed, in part, to
> the intern's going into the situation with
> rather well-developed attitudes which are
> tenaciously held."[112]

Whether, in fact, a student teacher is influenced, and the extent to which he is influenced by the co-operating teacher or anyone else, may be related to the individual's degree of deference. Such were the results of a study by John Teigland.[113] The author feels that this deference trait might be an important determiner of direction of attitude change. The need to defer to the ideas and attitudes of others (e.g. teachers) might have accounted for part of

110. *Ibid*, p. 368.
111. *Ibid*,
112. *Ibid*, p. 369.
113. John J. Teigland, "The Relationship Between Measured Teacher Attitude Change and Certain Personality Characteristics", *The Journal of Educational Research*, Vol. 60, No. 2 (October, 1966) pp. 84-85.

the positive change in teacher-pupil attitudes, in this study.
He goes on to state that if a course were taught with a philos-
ophy of strict discipline and authoritarianism, the change in
attitude of those who had strong deference needs might be in
the negative direction.[114]

Another study conducted by Paul Wright in 1966 is in
basic agreement with Tiegland's[115] but also revealed other
interesting results. He concluded that a person who is liked
will be more effective in influencing another, than a person who
is disliked. Further, this influence from what he terms "a
positive source" will be more successful if attempted indirectly
(i.e. by example) than a direct influence attempt.[116]

His study also revealed that an influence attempt from
a negative source (i.e. a person who is disliked or with whom the
individual is in disagreement) will result in a driving force
upon the recipient toward a change in the direction opposite to
that advocated by the influencer, "and that the strength of this
negative driving force will be inversely proportional to the dis-
crepancy between the position of the would-be influencer and that
of the recipient.[117] This may possibly account for the lack of

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114. This study appears to concur with the general findings that
     individuals tend to change attitudes in the direction of
     authority figures, group pressure, and so on. See especially,
     T.M. Newcomb, Social Psychology, (New York: Henry Holt and
     Company, 1958).
115. Paul H. Wright, "Attitude Change Under Direct and Indirect
     Interpersonal Influence", Human Relations, Vol. 19, No. 2,
     (1966), pp. 199-211.
116. Ibid, p. 209.
117. Ibid, p. 210.

positive influence by the methods teacher as cited in the study

by Kropp and Anderson which we have already discussed.

Wayne Dumas of the University of Missouri, further

discovered in his research that the extent of influence of the

co-operating teacher is directly related to the amount of time

he is present with the student teacher.[118] He found after examin-

ing 106 prospective teachers at Texas Technological College,

that the prescence of co-operating teachers a majority of the

time during student teaching tends to be associated with an improv-

ing self-concept by student teachers. Conversely, the absence of

co-operating teachers a majority of the time tends to be assoc-

iated with negligible or negative changes in self-perception.[119]

Attitude change in beginning teachers

From all of the various studies that we have examined

concerning practice teaching in particular, and teacher education

in general, it would seem legitimate to conclude that some attitude

change does occur, albeit through many different means. Some forms

of teacher education appear to be especially beneficial in bring-

ing about positive attitude change, while others appear to be

weak.

In the first part of this chapter we discussed, through

various studies, the possibility that attitude change in teacher

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118. Wayne Dumas, "Factors Associated with Self-Concept Changes in
    Student Teachers", Journal of Educational Research, Vol. LXII,
    (February, 1969), pp. 275-278.
119. Ibid, p. 278.

education students would be difficult to attain, since many of their attitudes are solidified early in life. The question that we must therefore examine is whether the studies we have just examined contradict the previous hypotheses. It is to this point that we shall now direct our attention. Do attitude changes which are formed during teacher training remain after the student enters the profession?

Dr. Harry Day of Florida State University investigated whether beginning teachers exhibit a loss of good attitudes toward children and school work.[120]

The procedure followed in his research was to administer the MTAI to 196 college seniors (40 males and 156 females) immediately upon their return to campus from internship teaching service in the public schools. Then one year later a follow-up study was conducted on this group. Of the 196 who had completed their internship, 135 were employed full-time as teachers. The MTAI was mailed to all of the original group with the request that they administer the MTAI to themselves. Of the 135 who were teaching, responses were received from 109 subjects. Of the 61 who were not teaching, 37 also returned the completed materials.

An examination of the test results for the teaching group revealed a mean loss of 20.0 after a one year period of teach-

120. Harry P. Day, "Attitude Change of Beginning Teachers after Initial Teaching Experience", The Journal of Teacher Education, Vol. X, No. 3 (September, 1959) pp. 326-328.

ing. Test results for the non-teaching group showed that a mean loss of only 1.5 occurred.[121]

It appears, therefore, that very little change takes place in the attitudes as measured by the MTAI, of graduates who prepared for, but did not enter teaching. This is in sharp contrast to the rather drastic shift in the direction of less desirable attitudes experienced by the teaching graduates of the University.

It must be noted that the results of this study indicate that practice teaching does not create a positive attitude toward children and school work in the first place. This is obviously quite significant and is in contrast to what we have noted in previous studies. Perhaps of even greater importance, however, is that a much more negative attitude develops during the first full year of teaching experience.

The author is inclined to believe that this is the result of unrealistic attitudes which are formed during teacher training, especially practice teaching.[122] As a result, he feels that earlier and more prolonged contact with the classroom situation would be desireable.[123]

Morrison and McIntyre[124] also examined possible attitude changes in teachers during the first teaching year.[125] They dis-

121. Ibid, p. 327.
122. Ibid, p. 328
123. Ibid.
124. See: Butcher, op. cit., pp. 17-24; and McIntyre and Morrison, op. cit., pp. 32-37.
125. A. Morrison and D. McIntyre, "Changes in Opinions About Education During the First Years of Teaching", British Journal of Social and Clinical Psychology, Vol. 6(1967), pp. 161-163.

covered that when educational opinions of teachers are examined over the whole period of training and initial teaching it is clear that changes during training in the direction of increased naturalism, radicalism and tender-mindedness are to varying degrees being reversed after a single year of teaching.[126]

Attitude change in experienced teachers

What happens to a teacher's feelings about children and their education after he has taught for several years? A study by Rabinowitz and Rosenbaum attempted to answer this question.[127] Three hundred and forty three teachers who had been administered the MTAI during their senior year of teacher education, were re-administered the test approximately three years later. All were elementary school teachers, who had graduated from four colleges in and around New York City.

Results of the study indicate that the interval of three years between the administration of the MTAI to student teachers and the administration to experienced teachers was accompanied by a significant decrease in MTAI scores.[128]

Although there was some difference in scores among the four colleges, the authors feel that there is no evidence that the colleges differed in their ability to build attitudes that resist the changes associated with experience.

The authors suggest that there might be various reasons for

126. Ibid, p. 162.
127. William Rabinowitz and Ira Rosenbaum, "Teaching Experience and Teachers' Attitudes", The Elementary School Journal (March, 1960) pp. 313-319.
128. Ibid, p. 318.

these attitude changes. They state:

> "Undoubtedly, they can be regarded as
> unfortunate indications of how favorable
> attitudes, built up in college, erode and
> deteriorate in the classroom.....Or the
> change in attitudes may be interpreted as
> the beginning of a hardening process that
> will soon turn into bitterness, distrust,
> and agression.
> A far less gloomy view of these find-
> ings is also possible. The response change
> may be seen as a sign of a more mature,
> tempered judgement that experience may be
> expected to bring. The change in attitudes
> may indicate a realistic adaption to the
> demands of classroom life." [129]

A study conducted by Wiseman and Start of the University

of Manchester School of Education was in agreement with the study

discussed above.[130] The authors discovered that there is little

correlation between attitudes formed during teacher training, and

success in the teaching profession. Students who had positive

attitudes towards instructors, courses and children did not main-

tain such positive attitudes, and thus seemed to be disillusioned

in the profession.

All of the information compiled in this chapter is to

some significant degree related to teachers' attitudes towards

teacher training in Nova Scotia. These attitudes are examined

in Chapter Four of this thesis. Only occasionally has an attempt

been made to draw conclusions from the relationship between these

expressed attitudes and the studies which have just been discussed.

129. Ibid, p. 319.
130. S. Wiseman and K.B. Start, "A Follow-up of Teachers Five Years
     After Completing their Training", British Journal of Educational
     Psychology, Vol. 35, No. 3, pp. 342-361.

However, in some cases there appears to be a close relationship
which could be examined more thoroughly in another study to
determine in what area specific problems lie. The scope of this
study, however, is limited to a general examination of possible
difficulties and the complex problems involved, and in no way
attempts to solve any of these problems.

CHAPTER 3

DESCRIPTION OF
TEACHER TRAINING PROGRAMS

Acadia University

Acadia University has a one year post-baccalaureate
Bachelor of Education degree. In addition, the school of educa-
tion also offers an M.Ed. degree, acquired through completion of
four courses along with a thesis, as well as a junior and senior
diploma in education. The B.Ed. program is substantially
similar to what it was five years ago, although there have been
changes in the number of courses offered and the content of these
courses. There is also a B.Sc. degree offered in Physical Educa-
tion, in which there are two major areas of concentration; one
area is, obviously, physical education, and the other is in a
particular subject taught in the public schools.

There are now 145 students in the B.Ed. program, with
77 males and 68 females, most of them taking the program on a full-
time basis. This represents an increase of approximately 90% over
the enrolment of four years ago. There are nine students taking
the senior diploma and seven enrolled in the junior diploma program.

There is no standard qualification for admission to the
program other than a Bachelor Degree. Nevertheless, prospective

candidates for the Bachelor of Education program are encouraged to take courses in their undergraduate years in those subject areas which are taught in the public schools. This is thought to be especially important for High School teachers.

A Bachelor of Education candidate must complete one full year of study, that is, five courses, four of which must be in the school of education. The following three courses are compulsory:

1. Either Education 501 (The History of Education), or Education 531 (The Social Function of Education), and either Education 502 (The Philosophy of Education) or Education 532 (Comparative Education).

2. Education 511 (Educational Psychology) and Education 512 (Guidance). These courses are half-year courses.

3. Education 520 (General Methods of Secondary School Teaching and Practice Teaching).

For subject specialist teachers, it is suggested that the fourth course in Education be chosen from the special methods courses and Physical Education. Admission to these special methods courses requires at least a minor in the case of Academic subjects.[1] The total number of courses from which the teacher trainee may select his program is seventeen, not including the Master's program which would add seventeen more.

1. Acadia University General Calendar, 1970-71, p. 157.

Besides its regular curriculum, the School of Education attempts to work with many other social institutions. To this end, they have developed a relationship with the Fundy Mental Health Centre in order to work jointly with them, particularly where school children are involved, and Master degree candidates are at times permitted to act as observers in the specific counseling situations. On the other hand, University counseling staff accepts as clients those people who are referred to the counseling centre by the Mental Health Centre.

The School of Education also likes to maintain a close relationship with schools in the valley area, and feels that it has been quite successful in this field. Students from the University are involved in special assignments within these schools, assignments which may range from individual intelligence testing to the development of special materials for use with individual students.

Within the last two years, the University has developed two special areas of effort. The first is a Reading Laboratory for diagnostic and teaching work with students at Acadia, and for students in the public schools in the surrounding area. The second is the development of a caravan with complete materials to be used in the preparation of teachers who in turn will be able to instruct children with learning disabilities. This caravan is intended to be available at selected schools where one or more teachers are interested in

learning the techniques of testing, and of identifying and teach-
ing children with learning disabilities.

The Education Department sums up these programs in the
following manner:

> "We try to keep ourselves abreast of the uses of
> modern technology in the training of teachers.
> We make wide spread use of the video-tape record-
> ings in many teaching situations as well as tele-
> vising teacher trainees at work in regular school
> rooms with regularly scheduled classes. We are
> well aware of the difficulties in attempting to
> keep reading assignments and text materials up
> to date. It is our hope that by compiling our
> own text we will be able to revise the readings
> as new information is forthcoming, thereby keeping
> not only the best of the ideas presented in past
> years but also confronting our students with the
> best of the new ideas as they are presented in
> the writings."[2]

While in theory class attendance is compulsory, there
is no great pressure put on students to be present at every class.

Written examinations are held in the Bachelor of Educa-
tion courses, since this is a University regulation. The pass mark
in each subject is fifty per-cent.

In the 1969-70 academic year there were eleven full-time,
and seven part-time faculty members at Acadia University, creating
a staff-student ratio of approximately 1 : 13 with full-time
faculty and 1 : 8 with full and part-time faculty included.

However, one must be careful not to misinterpret these
figures as they pertain to either Acadia University or any of the

2. Teacher Training at Acadia University (Report prepared for the
   for the Teacher Education Conference sponsored by the Nova Scotia
   Teacher's Union, Spring, 1970.) p. 4.

other teacher training institutions discussed in this chapter.
For it must be clearly noted that an individual professor teach-
ing a course to all or nearly all students, is in fact, faced with
a staff-student ratio of 1: total number of students. It is also
of importance to realize that part-time faculty do not spend the
same amount of time with the students as do full-time faculty.

At the present time four weeks are devoted to practice
teaching and observation, the first two weeks in the fall term
and the second two weeks in the spring. Student teachers do their
practice teaching in the public schools in that area between the
boundaries of Middleton and West Hants. When the students return
to the University, a one day seminar is devoted to a discussion of
their practice teaching experience.

Student teachers may state their preferences with regard
to the school, grade, and subject they wish to teach, and this is
followed as closely as possible. The department also attempts to
place the student with the same co-operating teacher during the
first and second terms.

Student teachers are required to plan each lesson care-
fully, and to submit a lesson plan. After their lesson, the student
may observe his own performance which has been video-tape recorded.

Each student is observed once each session in practice
teaching, and is evaluated by a standard form of evaluation sheet.

Letter grades are assigned which are later converted to number grades.

While the student teacher is encouraged to teach as many lessons as possible, he is also encouraged to take part in other forms of instruction, such as tutoring, or assisting at projects, or even conducting parties for children. Such activity is in fact part of the Education 531 (The Social Foundation of Education) course. As the Calendar states:

> "Particular attention is given to the problems faced both by school and communities in meeting the expectations one establishes for the other. Emphasis is placed upon student involvement in small work groups intended to provide a wide opportunity for active participation in community development. Therefore, field experiences, surveys, and group discussion will constitute fundamental elements of the course."[3]

Dalhousie University

The Education Department of Dalhousie University has two programs which lead to the degree of Bachelor of Education, a four-year integrated course and a one year sequential course. As well, the University offers a Master of Arts in Education course and a Junior Diploma course.

In the four-year integrated program, students take classes in Education concurrently with classes in Arts or Science. On the completion of this four year program, two degrees are awarded, the Bachelor of Education, and the Bachelor of Arts or the Bachelor of Science. The instruction offered in the Education courses is basically the same for the four-year integrated program as in the one year

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3. _Acadia University Calendar, 1969-70_, p. 232.

sequential program. The one year sequential program is open to students who have already obtained a Bachelor of Arts, Science, or Commerce degree. Upon completion of the one year program, the Bachelor of Education degree is awarded.

Both the four-year and the one-year programs are divided into two types, one to prepare students for teaching at the elementary level, the other for teaching at the secondary level.

In the Bachelor of Education programs the courses of instruction are:

General Principles of Education (Education 101)
Theory and History of Education (Education 102)
Methods of Teaching, Primary to Grade Three (Education 3)
Methods of Teaching, Grades Four to Six (Education 4)
Methods of Teaching in Junior and Senior High School (Education 5)
Educational Psychology (Education 6)
Testing and Guidance (Education 7)
Practice Teaching (Education 8)
Physical Education (Education 9)
School Art (Education 10)
Drama in Education (Education 11)
School Music (Education 12) [4]

In the four year integrated course, the first year is devoted to the regular classes required for the B.A. or B.Sc. degree. In the second year of the program the student must select either the elementary or secondary program leading to the B. Ed. degree. Those students selecting the elementary program must take Education 3, 6, and 8, as well as three classes in Arts or Science. In year three, the student must select Education 101, 4, 8, and one

4. Dalhousie University Calendar, Faculty of Arts and Science, 1969-1970, pp. 101-103.

of 9, 10, 11, or 12, as well as three courses in Arts or Science.
In year four the student must take Education 102, 8, and one of
5, 7, or an additional class in Arts or Science, as well as three
classes in Arts or Science. There are certain requirements
concerning the Arts and Science courses to be selected over the
four years of the program.

A student selecting the B.Ed. (Secondary) integrated
course must take Education 101, 6 and 8, as well as three classes
in Arts or Science during year two. In year three, he must take
Education 5, 8, and one of 9, 10, 11 and 12, and four classes in
Arts or Science. In year four he must take Education 102, 4 or
7, and 8, as well as three classes in Arts or Science. The
student must have a major and a minor area of concentration in
the Arts and Science courses, in two subjects which are regularly
taught in Nova Scotian schools.

In the sequential course, students selecting the Elemen-
tary program must complete Education 101, 102, 3, 4, 6, and 8 and
any one of Education 9, 10, 11, and 12. In the Secondary program
the student must successfully complete Education 101, 102, 5, 6, and
either 4, or 7, as well as Education 8 and any one of Education 9,
10, 11 or 12. In the 1969-70 academic year, students in the one
year B.Ed. program for the Secondary level are required to have at
least a 200 level course in the subjects. If the student does not
have a 200 level course in a method area, he may take one from the

University in place of an elective from Education 9, 10, 11, or 12. Students in the Elementary program are presently taking Education 14, which is a combination of Education 9, 10, 11, and 12.

In the Junior Diploma course a student must complete the first three years of the four-year integrated Elementary program. The Diploma in Education course previously offered by Dalhousie to students who had completed ten or more classes toward a Bachelor's degree in Arts, Science or Commerce is no longer offered. [5]

In the 1969-70 Academic year there were 242 students in the Bachelor of Education program at Dalhousie University. Of these, 15 were in the four-year integrated program. Of the 242 B.Ed. students, 170 were female, and 72 were male. The Bachelor of Education programs are for the most part full-time programs. The number of students in the B.Ed. course has increased significantly over the past few years. The 242 students enrolled in the 1969-70 academic year represents an increase of 45 students over the 1968-69 year, which, in turn, represents an increase of 50 students over the 1967-68 enrolment.

The policy of written examinations is somewhat variable in the Dalhousie Education Department. There are two main methods of evaluation. Method A involves a final examination at the end of each term, with tests at the discretion of the individual professor.

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5. _Ibid._, p. 100.

In method B the students are graded on their class work, and a formal final examination is optional. In the 1969-70 academic year, the education students were divided into 21 groups. Of these, six were to be evaluated by final examinations in April, while the remainder were to be evaluated on the basis of assignments. The official pass mark for the B. Ed. program is 50%.

Classes in education at Dalhousie University are held on the average of 13 to 14 hours per week, and attendance is generally optional.

The education faculty of Dalhousie University at present consists of: (1) 13 professorial members, two of whom are on a part-time schedule; (2) five teaching assistants on a full-time basis; and (3) nine part-time lecturers, teaching for two hours per week.

Thus, among full time professorial staff members, there is a staff-student ratio of 1:22. Counting the full-time teaching assistants the ratio is approximately 1:15, and the ratio becomes approximately 1:9 when all staff members are included.

The Education Department of Dalhousie University devotes eight weeks to practice teaching. During the first term each student spends one week of observation in the classroom, two weeks of practice teaching in an urban area, and one week of practice teaching in a rural area. During the second term, the education students spend the entire month of February on teaching practice. This large block of practice teaching is done in the cities of Halifax

and Dartmouth, or in Halifax County.

Student teachers have a choice with regard to school
level, school, and subject area and their choices are followed
as closely as possible.

During practice teaching, the student teacher is
observed twice in two weeks by one supervisor and twice by another
supervisor. A check is made to see if there are contradictions
between the reports of the master teacher and the university
supervisors. In rural areas the supervisory visits are somewhat
less specifically defined because of the geographical difficulties
in seeing all students.

The student teacher is encouraged to teach as many
lessons as possible during his practice teaching sessions, and to
plan each lesson carefully. Some supervisors require that the
student teachers submit a lesson plan, while others do not. Also,
some require that a detailed log of the practice teaching exper-
iences be kept, but this is at the discretion of the individual
supervisor.

The Education Department has two types of evaluation
sheet for student teachers. One type is the "Teacher Rating Scale."
On this form the student teacher's personal cognitive characteristics
are rated in the areas of intellectual process, behavior under stress,
perspective of self, anxiety and planning, and an overall rating is
given. The student teacher's attitude toward the pupil is rated in

terms of responsiveness, attitude, and judgements, and an overall

rating is given for these areas. The student teacher is also

evaluated for his cognitive attitude toward the communication

of subject matter under the heading of use of lesson plan, teaching

method, and teaching goal, and is again given an overall rating for

these areas. A copy of this "Teacher Rating Scale" and also of the

"Teaching Observation Report" are contained in the Appendix.

   Students receive letter grades for their practice teach-

ing. A five letter scale from A to E is used. The 1968-69 academic

year was the last time that numerical grades were given.

Mount Allison University

   Mount Allison University has a one year post-baccalaureate

Bachelor of Education degree. It does not offer a Masters degree in

Education nor does it have a diploma course.

   There are at present forty full-time students[6] divided

equally between male and female in the B.Ed. program, a program which

was substantially revised in 1967-68. The program is designed specifi-

cally to train secondary school teachers.

   In admitting students to the B.Ed. program two things are

considered. First, the applicant must have a teachable major, that is,

he must have a major in a subject that is taught in the public secon-

dary schools. It is also preferred that an individual have a teachable

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6. In keeping with the general policy of the University, which is to
 maintain a maximum of 1200 students, the B.Ed. program is restricted
 to 40 students each year. There are no part-time students in the
 B. Ed. program.

minor. The exceptions to this rule are students who have majors
in psychology or sociology. As a result, students must be
prepared to take the proper courses in their undergraduate
years to satisfy this requirement. Hence, the department would
hope that the B.Ed. program is looked at in terms of 5 years,
rather than one, so that the student will be capable of combining
a broad based liberal arts program with specialization in a certain
field, along with an understanding of people.

The second consideration for admittance is that of the
personality of the applicant, and whether this person has a humanity
and concern for others. Therefore, the Dean talks with all applicants
before they are admitted.

The core program in the education department consists of
the following content areas:

Education 500 - The Historical and Philosophical Basis of Education.

Education 510 - The Psychological and Sociological Basis of Teaching.
This includes the study of individual differences,
statistical literacy and evaluation and measurement.
This course is combined also with general methods to
avoid having theoretical concepts becoming divorced
too much from the practical.

Education 520 - The Administrative and Organizational Aspects of
Teaching, which includes such things as the new trends
in education, patterns in administration, etc. This is
a one-half year course, and is combined with special

Methods to make up the full course.

Education 530 -Pedagogy and Practice Teaching. This program, plus
one professional elective from the following, is
required of all candidates: (a) An Introduction
to Guidance Counselling in the Schools, (b) Statis-
tics and Research Design, (c) Evaluation and Measure-
ment.

For the 1969-70 academic year, and the year preceding,
there were few written exams, although some type of proficiency
examination may be administered by the department to determine what
they feel is the most important consideration - can students teach?

For the 1969-70 academic year, there were three full-
time and six part-time faculty creating a staff student ratio of
approximately 1:13 with full-time faculty and 1:4 with both full
and part-time faculty included. It is hoped this will be increased
to four full-time and eight part-time faculty members next year.

There is a total of six weeks devoted to practice teaching
and observation. Students go out into six schools in the Sackville,
Amherst, Dorchester and Moncton areas for two weeks at the beginning
of the year before regular class instruction commences. The reason
for this is because of the feeling that students already have their
own ideas concerning all aspects of the teaching profession, and that
this will help develop more of an open-minded attitude. Students
spend the mornings observing, and the afternoons in seminars discuss-
ing what they have seen.

In the second term student teachers go into the schools
for a one month period. At this time they not only do some regular
teaching, but also some collaborative teaching, in which one indiv-
idual teaches and two others observe. This is considered to be
useful since students are not evaluated, and are permitted to do
things the way they think it should be done. When the teaching
session is completed, the three students discuss the class. The
emphasis in this situation is to relate teaching as a behavior to
the kind of people they are as individuals. In any case, all
lessons which are taught are supposed to be carefully planned,
and therefore students are required to submit a lesson plan for each
period taught.

Practice Teaching, however, does not take place in the
regular classroom situation only. Micro-teaching is used in a class
of from 5 to 10 pupils for the purpose of teaching a particular skill
such as asking questions, or writing on a board. The performance of
the student is video-taped thus giving him a better opportunity of
relating the theory he has learned to the practice.

The number of times a student is observed is contingent
upon the quality of his performance, but normally the student will
be observed by the master teacher, the special methods teachers and
one other faculty member.

Rather than be encouraged to teach as many lessons as
possible, it is felt that he should have one tutorial a day, at least
one observation a day, and the rest of the time in teaching. The

University feels that the student-teacher should have no more than three preparations per day.

In the past there have always been letter grades used to evaluate practice teaching, determined by the quality of performance as registered on the Practice Teaching Appraisal Scale which can be seen in the Appendix. This, however, may be changed in the future to simply having a student graded as excellent, satisfactory, or unacceptable.

Mount Saint Vincent University

Mount Saint Vincent University offers a variety of teacher training programs. As the 1968-69 Calendar states:

"Specially concerned with the training of teachers, the University offers, in addition to the Master of Arts in Education and the Bachelor of Education, programs leading to the Junior and Senior Diplomas in Education. These are open to students who have not yet completed all the requirements for a Bachelor's degree. It also offers specialized courses for teachers of Business Education.."(p. 5)

The Bachelor of Education course is a one-year post-baccalaureate program leading to either a general Bachelor of Education or a Bachelor of Education with specialization in Business Education. The Master of Arts in Education is offered on a part-time basis only, with one course being offered per year. In the Diploma programs, a student who has successfully completed ten liberal arts courses can take five full courses in Education, in addition to observation and practice teaching, and, on the successful completion of these, is awarded a Junior Diploma in Education. A student who has

successfully completed fifteen liberal arts courses may be admitted
to the Diploma program, and on the successful completion of five
full courses in Education, (in addition to observation and practice
teaching) may be awarded a Senior Diploma in Education.

Senior and Junior Diploma programs are also available
with specialization in Business Education to students who have
completed three years or two years toward the Bachelor of Arts degree
with a Major in Business-Economics.

In the 1969-1970 academic year there were 65 students
enrolled in the Bachelor of Education programs. Of these, five were
part-time students. There was one male full-time student and two
male part-time students included in this number. Although the total
number of students in the Bachelor of Education program has not shown
a marked increase in the past few years, there has been an increase in
the number of lay students, and a decrease in the number of Religious
students. In the 1967-68 academic year, of sixty-five students, 20
were Sisters of Charity, while in the 1969-70 academic year, 63 of
the 65 students were laymen.

In the present year (1969-70) there are five full-time
faculty members and four part-time faculty members. This creates a
staff student ratio of 1:13 with the full-time faculty and 1:7 with
full and part-time faculty included.

Although there are no specific entrance requirements for the
Bachelor of Education program, other than a Bachelor's degree in Arts,

Science, or Commerce from a recognized college or university, an entrant to the program must have completed Education 200-201 prior to his admission. Education 202 is entitled "Educational Psychology", and involves the areas of "interest, attention, imagination, observation, memory, thought, emotion, will, habits, and their relation and application to education."[7] Education 201 is entitled "Psychology of Child Development."

Education 100, the History of Education, is a one semester course giving "a general survey of the main currents in the history of education from antiquity to the present day."[8] It is required of these students who have not taken it as undergraduates. Courses in physical education and catechetical methods may be required in addition to the above mentioned requirements.

To be eligible for the Bachelor of Education degree, the student must complete five full courses in addition to observation and practice teaching. The required courses are: Education 500-1 which are two one-semester courses, Philosophy of Education 1 (500) and Philosophy of Education (501); Education 502-3, two one-semester courses, include Psychology of Learning (502) and Measurements in Education (503); Education 504-5, two one-semester courses, include classroom Management and General Methods of Teaching (504) and Educational Administration (505). Education 506-7, also two one-semester courses, include Special Methods of Teaching in the Elementary School (506) and Special Methods of Teaching in the Junior High School (507).

7. Mount Saint Vincent University Calendar, 1969-70, p. 64.
8. Ibid.

Education 508, which is entitled "Foundations of Reading Instruc-
tion", is a two-semester course.

In the program leading to a Bachelor of Education degree
with specialization in Business Education, the student must complete
five full courses in Education, Education 500-1, 502-3, 504-5, as
mentioned above. Students in this program must also take Education
509, "Methods of Teaching Business Subjects", which is a two semes-
ter course dealing with the business subjects taught in high school,
and Education 604, "Psychology of Adolescence," which is a study of
the development and outstanding characteristics of the adolescent.[9]
Also required is Education 609, "Principles and Techniques of Guid-
ance," which deals with "The philosophy, principles and practical
tools employed in organizing guidance programs and the role of the
teacher in implementing the work of the guidance counselor." [10] A
student in this program may also be required to take a course in
Catechetical methods. Students of this program must have observation
and practice teaching in a business class in addition to the courses
mentioned above.

In the diploma courses, Education 100-101, History of
Education (100) and Introductory Philosophy of Education (101) are
offered in lieu of Education 500-501, and Education 200-201.
Educational Psychology (200) and Psychology of Child Development (201)
may be elected in lieu of Education 502-503.

In recent years the main changes in the education program

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9. _Ibid_, p. 67.

10. _Ibid_, p. 68.

at Mount Saint Vincent University have been the introduction of
the Foundations in Reading Instruction course which involves
"Essentials of developmental reading instruction-kindergarten
through junior high school, group and individualized reading; and
phonic skills. Observation of demonstrations, laboratory practice
and discussion", and "improved methodology"[11] are offered at all
levels, including the secondary level. Until recently, most
education students at M.S.V.U. planned to teach at the elementary
or junior high school levels, but in the 1969-70 academic year,
there were 17 students enrolled in the Methods courses at the secon-
dary level. These courses deal with the secondary school curriculum,
and, of course, the Business Education courses are also oriented for
senior high school teachers.

Although there are written examinations in some education
courses, the decision to hold them is the prerogative of the individ-
ual professor.

The pass mark for the education courses is 50%.

The average class load per student is approximately 17
hours per week, and attendance is compulsory.

Normally there are one hundred hours devoted to observation
and practice teaching, although in the 1969-70 academic year, 135 hours
were devoted to this purpose. This time was broken down into two weeks
during the first term and three weeks during the second term.

M.S.V.U. education students do their observation and practice

11. *Ibid*, p. 66.

teaching in an area proximate to the University and as far as is possible, students have a choice with regard to school level, school, and subjects to be taught. The Education Department of the Mount issues to students a guide for observation and practice teaching, a copy of which is included in the Appendix. There is some modification in these guidelines for student teachers who are doing their observation and practice teaching at the secondary level. In general, the directives for observation and practice teaching specify the number of lessons to be taught by the student teacher.

During the practice teaching session, the student teacher is supervised at least once by one of the full-time faculty members from the University Education Department. In addition to this, the student teacher is under the constant supervision of the co-operating teacher.

The student teacher is evaluated by both the University supervisor and the co-operating teacher. There is a standard "Student Teacher Appraisal Form" on which the co-operating teacher evaluates the student teacher in terms of his personal traits and qualities, as well as his instructional competencies. A copy of this appraisal form is included in the Appendix. In the evaluation of the student teacher, the University supervisor looks over the report from the co-operating teacher, and then makes a decision for marking purposes.

A numerical grade is given for practice teaching, although no mark is given during the first term. Instead, the total mark is

given at the end of the year.

During their observation and practice teaching sessions, the student teachers are required to submit lesson plans, which must be approved by the co-operating teacher before the lesson may be taught. In addition to this, the student teachers are required to keep a detailed log of all experiences during their observation and practice teaching sessions. This log must be submitted to the Director of Student Teaching. The format for the student log is given on page two of the guide "re: Observation and Practice Teaching" which is included in the Appendix.

The Education Department of Mount Saint Vincent University also provides seminars connected with practice teaching. The Department also issues a "Student Teacher Code of Ethics", a copy of which is included in the Appendix. This code of ethics deals with four main areas: student teachers and pupils; student teacher and supervisors; student teacher and co-operating teacher; and personal attributes and professional growth." [12]

Nova Scotia Teachers College

The Nova Scotia Teachers College has a program designed primarily to train teachers for grades one to nine. It had, until 1961, a one year diploma course offering a combination of academic and professional training subjects. In 1961 the two year program was introduced. In the Fall of 1970 they hope to begin a three year program, and extend it to a four year program beginning in the fall of 1971, when it is hoped that students graduating from such a

12. "Student Teacher Code of Ethics" - M.S.V.U. Education Department.

program will receive a University degree.

Up to the present time, the general requirement for admission to the N.S.T.C. is a grade eleven academic pass with a 60% average, including a pass in English, History and Mathematics and two others from Latin, French, German, Spanish, Physics, Chemistry, Economics, Music, Art, Home Economics, Industrial Arts and Agriculture. Besides these, there are also, on the one hand, special requirements for special courses, and on the other hand, provisions for older and more mature candidates being accepted without the above mentioned requirements. Beginning in the Fall of 1970, these requirements will be changed to a grade twelve pass, with English and History required, and three others from Modern World Problems, Physics, Chemistry, Biology, Geology, Mathematics, Latin, French, German, Spanish, Music, Art, and Home Economics. Students will not be admitted from grade eleven. In the 1969-70 school year there were 721 students in the program, including 529 females and 192 males. This represents an increase of approximately 75 over the previous year. The distribution among the various certificate programs is as follows: [13]

	General	Home Econ	Physical Ed.	Industrial Arts	Music	One Year	Kdgtn. Primary	
1st yr.	305	24	36	19	-	-	-	(384)
2nd yr.	243	28	35	9	4	16	2	(337)
	—	—	—	—	—	—	—	—
Totals	548	52	71	28	4	16	2	(721)

13. Report of Nova Scotia Teachers College to the Committee on Teacher Education, November, 1969.

Thus one can see that the following training courses are offered in the two year course leading to the following certificates:

1. Teacher's Certificate (general) for elementary and junior high school grades

2. Teacher's Certificate in Industrial Arts

3. Teacher's Certificate in Home Economics

4. Teacher's Certificate School Music

5. Teacher's Certificate in Primary Education (which, in the Fall of 1970, will be changed to a course on early childhood)

6. Teacher's Certificate in Physical Education

As we have mentioned previously, there are special course requirements for numbers 2 to 6, and we shall not concern ourselves with these. For the course leading to a Teacher's Certificate (general) 3 academic subjects and 2 professional subjects and practice teaching are required in the first year. In the second year, students are required to take two academic subjects and three professional subjects. The program for the General Certificate is therefore divided up in the manner shown below.

1st Year

I   General Education

     English and History required
     One of French, Biology, Chemistry,
     Physics, Mathematics, German
     (with required prerequisites)

II   Foundations of Education

     Child Development and Educational Psychology

III   Methods of Instruction

    1. General Methods and Classroom Management
    2. Special Methods - Language Arts
                  General Science
                  Physical Education
    3. Practice Teaching

2nd.Year

I   General Education

Two of French, Biology, Chemistry, Physics, Mathematics,
Economics, Psychology, German
(with required prerequisites)

II   Foundations of Education

Principles and History of Education

III Methods of Instruction

1. Special Methods   Mathematics
    Reading   Options from: French, Methods,
    Social Studies   Music, Art, Junior H.S. Math-
    Health   ematics

2. Practice Teaching

IV   Educational Administration

School Law, Registers, Reports, etc. Test and Measurements.[14]

There have been, however, some curriculum innovations at

the N.S.T.C. in the 1969-70 school year. Some of these programs are

examined briefly here.

a)   Early Childhood Observation Experiences

This is a program at the N.S.T.C. under the direction of the

Truro Headstart program for three and four-year old children.

Students enrolled in the general and Educational psychology

courses are given the opportunity to observe and work with these

children, and thus improve their own understanding of child develop-

ment. This program is co-ordinated with the Nova Scotia Youth

Training Centre, and the N.S.T.C. It is hoped that more of this

type of program can be introduced at other various age levels.

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14. This outline is taken from the Nova Scotia Teachers College Calendar,
     1969-70, p. 12.

b) <u>Truro Elementary Science Education Project</u>

The N.S.T.C. is working in the field of Science with elemen-
tary school children at the Willow Street Elementary School
in Truro. Emphasis in this program is placed on experimenta-
tion of a simple nature, and relating science education to
the environment of the child. At the same time, the N.S.T.C.
hopes to assist the Truro Elementary School Science program
to develop a more experimental approach to the learning of
Science. It is hoped that this program will be constantly
evaluated and in the future developed to offer greater
servicing to other schools in the geographical area which would
find participation of this nature helpful.

c) <u>Truro French Program</u>

During the 1969-70 school term, Dr. Norman Bridgey of the N.S.T.C.
is working in co-operation with the Truro schools in presenting,
on an experimental basis, an oral French program for students of
eight and nine years of age. While utilizing all available aids,
and stressing play and dramatization work as it relates to the
modern language program, the course is presented entirely with-
out recourse to translation. Therefore, students from the N.S.T.C.
who are interested in Modern Languages, as well as General students,
have the opportunity to observe and participate in this program.

d) <u>Elements of Civilization Course</u>

This is an experimental course to be run in the second half of the
1969-1970 academic year, and is intended to present under different

headings some topical elements of Literature, History, Philosophy,
Science, Music, Art, and Architecture.

> "The basic aim of the course will be to provide
> students with a series of highly diversified but
> carefully integrated studies of a cultural and
> intellectual background."[15]

This method of approach is to have the unit prepared and
presented by an inner-disciplinary team which is prepared to use
audio-visual materials as fully as possible. By experiences
attained in this, the team will modify their material and modes of
presentation to make the program as effective as possible.

e) Environmental Biology Course

This course is designed to provide the neophyte teacher with suff-
icient ecology understanding of their own environment to engender
excitement in a course that goes hand in hand with being acquainted
with the area of the world in which they live. Emphasis is there-
fore placed on such things as experimentation, conservation, and
utilization of scientific methods as it relates to the teaching
environment. Thus it is hoped that by making teachers more comfortable
in the world of biological science, proper values will be conveyed to
children.

f) Expansion of Student Personnel Services Program

For the academic year 1969-1970, the College has employed a full-time
Director of Student Personnel Services. His function will be to co-
ordinate admissions, registration, advising, student government, health
services, residence programming, testing and related student activities.

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15. Report of Nova Scotia Teachers College to the Committee on
Teacher Education, November, 1969, pp. 2-3.

"The object of this program expansion is to
attempt to enable each student to have some
instructor directly assigned to him for advis-
ing and informal counselling purposes. In
addition, it is being attempted to provide the
student with professional counselling services
where required."[16]

While much of this type of work has been done before in an

unofficial way, it is hoped that with this organization, the

individual interests of the students will be better served.

g) Introduction of Instructional Services

While this program will not have a Director for the 1969-1970

academic year, the present co-ordinator of audio-visual programm-

ing is assuming this function to try to implement a co-ordinated

audio-visual program throughout the College. Besides this, he

will be responsible for instituting a mobile television labora-

tory unit wherein it is hoped that students can become familiar

with the media of television and discover how to make it usefull

to children in a classroom environment. Other media such as film

strips, overhead projectors, 16 mm. projectors, tape recorders,

and record players will also be familiarized with the students.

In the regular program, written examinations are held at

the end of January and the end of May, and students must achieve

a mark of 50% to pass. Students have about twenty to twenty-five

hours of classes per week out of a potential forty periods.

Whether there is to be compulsory attendance or not is left to the

discretion of the individual instructor.

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16. Report of Nova Scotia Teachers College to the Committee on
    Teacher Education, November, 1969, pp. 3&4.

During the 1969-1970 school year there were fifty
faculty members, creating a staff student ratio of approximately
1:14.

Practice teaching is held for ten days for first year
students who attend nineteen schools in the Truro and Colchester
area. In the 1969-70 academic session, first year students were
in the schools from March 9-20. Second year students go for three
weeks in October and November and again for three weeks prior to
the Easter recess. Normally the College tries to send students
to a school in an area near their home, and therefore NSTC students
are practice teaching over the entire province. It is also planned
that students attend the same schools for the second term of practice
teaching. Next year (1970-71) it is planned that all students go
into the schools for three weeks prior to the beginning of classes
at the College, and have the students return to the same schools for
the second term.

While first year student teachers do not always get into
the schools which they desire since they are limited to the Truro-
Colchester area, second year students are accomodated as closely as
possible with regard to school, grade, and subject area which they
desire.

Student trachers are given a detailed list of instructions
before going into the schools. A copy of this is included in the
Appendix.

First year students are observed once each week by a faculty
member from the Teachers College, and second year students are observed

once each week during the first term, and just once the second term.
All this is above and beyond the normal observation by the master
teacher.

Students are encouraged to teach as many lessons as
possible and to plan their lessons well. First year students are
required to make up a formal lesson plan which must be approved by
the faculty member from the NSTC, and while second year students
must make lesson plans, it is not required that they be submitted
for approval.

Log books must be kept by all students and they must be
prepared to have it with them at all times for perusal by the
principal, the supervising teacher, and Teachers College personnel.
The logbook is supposed to contain the following sections: [17]

Section A:

a) General information - name, address, home address, school,
   supervising teacher, grade, principal.

b) Autobiography

c) Brief description of school and class organization

d) Seating plan

e) Timetable

f) Daily diary of all your activities

Section B

Lesson plan filed according to subject matter area, and in the
sequence of teaching. Date of teaching is to be shown on each lesson
plan.

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17. NSTC Handbook of Practice Teaching, 1969-70, pp. 10-11.

Section C

Useful ideas and teaching aids noted about the room and used by the regular teacher. Be sure to ask permission to make copies of poems, etc., which particularly appeal to you.

Section D

Self-evaluation

Section E

Comments

Students are presently evaluated on a standard form which, because it is considered inadequate, will likely be changed for the fall term of 1970. A copy of this is included in the Appendix. A student's performance is graded as either superior, acceptable, or unacceptable. The meanings of each of these terms are included below.

Superior Work

Superior teaching will be characterized by a substantial number of the following characteristics:

1) Complete preparation

2) Excellent presentation, free from errors

3) Proper English usage

4) Interest of class aroused and maintained

5) Good questioning and answer reception

6) Good class control

7) Well organized board work

8) Aims achieved

9) Effect of teacher-intern's personality positive

10) Something to "lift" the work out of the acceptable or average classification.

Acceptable Work

Acceptable teaching will require complete preparation and four more of the characteristics as listed under Superior teaching.

Unacceptable Work

If a teacher-intern's teaching shows any one of the first four characteristics listed below, his teaching should be rated unacceptable. A combination of any five of the following characteristics will also warrant an unacceptable rating. There should not be hesitation about assigning unacceptable ratings where justified. Among the teacher-interns at any Teachers College there will be some who are unsuited for teaching.

1) Inadequate preparation

2) Poor presentation

3) Lack of understanding of material being taught

4) Weak class control

5) Poor English usage

6) Unsatisfactory questioning

7) No class interest aroused or maintained

8) Poor voice

9) Poor teacher-pupil relationship

10) Aims partially achieved

11) Negative personality

Saint Francis Xavier University

Saint Francis Xavier University offers a variety of
Teacher education programs. There is a one-year post baccalaureate
program of studies leading to the general Bachelor of Education
degree. There is also a one-year course leading to a Bachelor of
Education degree in Business Education, and a four year program
leading to the Bachelor of Science in Education degree. In addi-
tion to the Bachelor's degree courses, there are courses offered
leading to a Master of Arts in teaching degree and a Master of
Education degree, as well as courses leading to Junior and Senior
Diplomas in general education and in Business Education.

For the past few years, the only requirement for entry
into the Bachelor of Education program was a Bachelor's degree in
Arts, Science, Business Administration or Commerce, but in the
future all applications for the program will be reviewed by a
Selection Committee. According to the 1969-70 Calendar, admission
requirements to the program include:

> "graduation from a recognized University in Arts,
> Science, Business Administration or Commerce,
> with at least one year in residence, evidence of
> aptitude for and interest in the teaching profession;
> approval of the committee on the Selection and Recommen-
> dation of Teachers."[18]

In the 1970-71 year a quota will be placed on the number of students
entering the B. Ed. program.

In order to obtain the Bachelor of Education degree, a
student must pass the following courses: Psychology 100, General

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18. St. Francis Xavier University Calendar, 1969-70, p. 67.

Psychology; Education 325, General Methods of Teaching; Education

330, Practice Teaching; Education 405, History of Education;

Education 415, Administration of Secondary Education; Education

425, Psychology of Education; Education 635, Guidance; Education

445, Tests and Measurements; Education 455, Curriculum and Methods

of the Secondary School; Education 460, Philosophy of Education;

Education 471, Adult Education; and Education 485, Adolescent

Psychology. Most of the above mentioned are half-year courses.

For the Bachelor of Education in Business Education,

the requirements are similar to those for the general Bachelor of

Education, with a few exceptions. Students are required to pass

Education 285, 295, 310, 330, 405, 425, 435, 460, 485, and 490.

The content of these courses are: Special Methods in Teaching

Bookkeeping, Data Processing, and related subjects (285); Principles

and Practices in Business Education (295); Special Methods in

Business Education (310); and Evaluation and Measurement in Business

Education (490).

In the current year, 1969-70, General Methods and Educa-

tional Psychology have been incorporated as part of the course

"Principles and Practices of Education" which is a full year course.

The students must also select two of six courses in Special Methods.

These are half-year courses, with three being offered each semester.

These special methods courses are in the area of French, English,

Mathematics, Social Studies, Science and Reading.

The Bachelor of Science in Education course is designed to

provide sufficient training and background in Education and
Science to qualify a graduate for high school Science teaching.
This is a four year course, where the student attains a Science
background equivalent to that of a student in the General Bachelor
of Science Program, and a background in Education equivalent to
the material covered in the Bachelor of Education year. How-
ever, the teacher with this degree will have a teaching license
restricting him to the high school program in Science and Mathe-
matics. In this program, an elective in Education must be included
in the second year course selection. Science Education 300 must be
taken in the third year, and in the fourth year two courses in
Education and Science Education 491, a seminar course, must be
taken. The Science Education 300 course, "Methods of Teaching
Science in Secondary Schools" includes practice teaching. Practice
Teaching is spread over the third and fourth year.[19]

In general, there have been no major changes in the
Bachelor of Education program over the past few years. However, a
number of minor innovations have been adopted including selection
procedures and course consolidation. Nevertheless, major changes
are in the offing for the 1970-71 academic year. These proposed
changes focus on the relation of theory to practice in the educa-
tion program. The main innovation will be an "internship" where
the University Education Department will work in co-operation with
the local schools. With both operating on a six-day week, the

19. Information in the Bachelor of Science in Education course is
taken from the St. F.X.U. Calendar, 1969-70, p. 79.

education students will go out to the schools on alternate days
(i.e. 1,3,5, or 2,4,6) for half-days in order to both assist
teachers by providing them with resources from the University,
and also to give students an opportunity to become acquainted with
the classroom through observation and practice teaching.

In the present year, 1969-70, there are 114 students in
the Bachelor of Education program, including 75 males and 39 females,
all of whom are full-time students. This represents a significant
increase in numbers over the 1968-69 academic year, where the total
number of students in the Bachelor of Education program and the Junior
and Senior Diploma programs totaled 87, including 64 males and 23
females. The greatest increase has been in the number of female
students. However, in the 1970-71 year the total number of students
in the Bachelor of Education program will be somewhat reduced over
the present number, and a quota will be set for the program.

There are presently eight full-time faculty members and six
part-time members, each of whom teaches one-semester courses, and the
number of full-time members may be increased to 11 in the 1970-71
academic year. This creates a staff student ratio of approximately
1:14 with full-time faculty and 1:8 with both full and part-time
faculty included.

In the Education Department the examination policy is quite
flexible. Some courses have written examinations, others do not. In
some courses, papers are the main source of evaluation, and the final
examination plays a minor role only. The trend seems to be to get away
from final examinations. The pass mark for the Bachelor of Education

program is 50% in each subject, with an overall average of 60%
required for graduation.

Classes are held three hours per week per class, and there
are some tutorials, especially in Philosophy. This three hours per
week per class situation is expected to be changed for the 1970-71
academic year. Attendance at class is not compulsory, but roll-call
is taken occasionally. In a mimeographed description of the educa-
tion program at St. F. X. presented at the Teacher Education Confer-
ence held in March, 1970 it is stated that:

> "Following the November session of practice
> teaching, students who have not done well are
> given the opportunity to gain more experience
> in the classroom. At this time, too, students
> are evaluated from a number of points of view,
> particularly to search out those students who
> may not be taking the Education program seriously." [20]

All students in undergraduate and post-graduate teacher
training courses at St. F. X. are required to take approximately
150 hours of teaching experience under special supervision. During
the 1969-70 academic year the students spent a week of observation in
schools in the Antigonish area prior to the beginning of formal educa-
tion courses. In November one week was spent in teaching practice.
In March the student-teachers spent a week conducting individualized
instruction at the University. During this period, pupils from the
local schools came to the University to act as teaching subjects. A
further two weeks at the end of the year were devoted to practice
teaching.

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20.   p. 4.

Thus practice teaching time is divided into four
sessions. In the first session the student-teachers go to
schools in the Antigonish area as observers. In the November
session, student teachers do their practice teaching in their
home towns if they so desire. The March session involves a
week of individualized instruction at the University, and in
the final two week session at the end of the year the students
can again go to their home towns for their practice teaching.

The student teachers fill out a form indicating their
preference of school level, subject to be taught, and location
where they would like to do their practice teaching. In indicat-
ing their practice teaching subject area, the students must also
indicate their qualifications in this subject area. These re-
quests are followed as closely as possible.

During practice teaching the student teacher is observed
by the master teacher, and is observed at least once by a University
supervisor. In the event that the University supervisor is not
satisfied with the student teacher's performance, follow up visits
may be held.

In general, student teachers are encouraged to teach as
many lessons as possible. The general practice is to have the
student teacher observe for one day and then take over for the rest
of the practice teaching period.

At present there is an evaluation sheet, but this is now
in the process of being changed. In the future, the University super-
visor and master teacher will make written descriptions of the student
teacher's performance.

Student teachers are required to have a lesson plan
for every lesson that is to be taught, since the Department feels
that this is very important. It is suggested, but not required,
that the student teachers keep a log of their practice teaching
experiences.

Student teachers do not receive number or letter grades
for their practice teaching. Rather, practice teaching is evalua-
ted on a pass-fail basis.

It is the expressed hope of the Dean of Education,
Father MacLean, that this will be the last year for blocks of
practice teaching. As was mentioned previously, an internship
program has been proposed for the 1970-71 academic year.

Saint Mary's University

Saint Mary's University has a one year post-baccalaureate
Bachelor of Education degree, that is designed primarily for the
training of secondary school teachers. However, in the 1969-70
academic year there was a small elementary methods group and a bus-
iness education group. The business education area will be completely
removed from the program on completion of this academic year. The
Department also offers a Master of Arts in Education degree, which is
awarded upon completion of four courses accepted by the School of
Education and a thesis. There are no diploma courses offered.

The program which has not changed substantially over the
last few years, at present has 106 students enrolled, divided almost
equally between male and female students. Most of the B. Ed. students

attended full-time, and it is the intention of the Department to accept only full-time students in both the B. Ed. and M.A. programs for the academic year 1970-71.

There is no standard qualification for admission to the program beyond the necessary degree, although students who do not have a working knowledge of the English language will not be accepted.

The Bachelor of Education program is that approved by the Department of Education of the Province of Nova Scotia and involves the completion of 6 academic courses, all of which are compulsory. These courses are: (1) Education 401, The Philosophy of Education; (2) Education 402, The Psychology of Education; (3) Education 403, Methods of Teaching; (4) Education 404, History of Education; (5) Education 405, Practice Teaching; (6) Education 406, Contents and Methods of Specific High School Subjects.

The Philosophy of Education course is a study of the nature and aims of education which attempts to formulate a humanistic philosophy of education for the modern era. Particular reference is made to Bernard J. F. Lonergan's Insight, although students are given the opportunity to read and discuss other fairly contemporary writers such as John Holt, Robert Hutchins, Alfred North Whitehead, Jacques Ellul., Marshall McLuhan, and others.

The Psychology of Education, according to the calendar is -

"a study of the nature, equipment, growth, develop-
ment, evaluation, and adjustment of the learner." 21

Students were given an outline of the syllabus of the

course in such a manner that they could be prepared for each

class meeting. The syllabus states:

"The whole purpose of a course on Educational
Psychology is to give you some insight into the
problems of learning and especially into the
conditions of the learner (and the teacher too,
to some extent), and on these matters there are
a variety of theories, one of which you may well
find to be more attractive to you as a guide than
might be others. The wider you read, therefore,
the more likely you are to develop this quite essen-
tial insight, and so the more likely you are to be-
come an effective and satisfied teacher." 22

The General Methods of Teaching course attempts to

apply basic principles of Philosophy and Psychology to the class-

room situation. Students are not forced to adopt any specific

method or methods, but rather are encouraged to pursue new ideas

on both a theoretical and practical basis.

The History of Education course which is "a survey of

our educational heritage aimed at assisting in the formation of

sound educational principles and practices" [23] was divided into diff-

erent sections during this academic year. Depending on his interest,

background and special preference, a student had the opportunity to

enroll in a section which concentrated on Ancient Greece and Rome,

The Renaissance, Canadian Education, The Modern Era, and others.

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21. Saint Mary's University Calendar, 1969-70, p. 49.

22. Lawrence Scobbie, Bachelor of Education Program, Course #402-
    Educational Psychology (St. Mary's University School of Educa-
    tion 1969-70).

23. Saint Mary's University Calendar, 1969-70, p. 50.

Students were examined on the particular area within which they worked.

The specific methods courses concern themselves with focusing on particular grades levels and particular subject areas within which the student teacher hopesto work. Instructors for this program are chosen from among competent experienced teachers within the area.

The individual professor determines the method in which students will be evaluated, and this may range from term papers, to tutorials, to having formal written examinations. The pass mark in each course is 50%, with an average of 60% needed for graduation.

Because of the large number of students enrolled in the program for 1969-70, many of the formal classes were held only once a week, or once every two weeks. The onus was therefore put on the student to do the required readings, and to take the initiative to consult with the instructor with regard to any difficulties he might be having. This situation did not exist in previous years, and is the direct result of a four-fold enrollment increase since the 1966-67 academic year.

There are at present four full-time faculty members and six part-time. Thus, for this academic year, there was a staff-student ratio of approximately 1:21 with full-time faculty and 1:10 when part-time faculty were included.

Practice teaching was held for two weeks in the fall term, but in the second term students had a choice of two programs. Those

who were interested in doing more practice teaching could go into
the public schools for two days a week for five weeks followed by
one solid week. Those who did not want this could follow the
regular two week block of practice teaching. This also was an
innovation adopted in the 1969-70 school term.

Student teachers do their teaching in the public schools
in the City of Halifax, the City of Dartmouth, and Halifax County.
Each student has the opportunity to state his preference with regard
to grade level, school and subject matter and this is adhered to as
closely as possible by the Department.

The co-operating or master teachers from the public
schools are normally invited to the University for an informal social
gathering with the student teachers a few days prior to commencement
of practice teaching. The purpose of this is to give students an
opportunity to become acquainted with their master teacher prior to
the program, and to give the student an opportunity to discuss, in
advance, the program which he will be following.

Students are encouraged to teach as many lessons as possible,
to plan each lesson carefully, and to submit a lesson plan to the ob-
serving faculty member or M.A. student from the University who will
normally see each student twice each term. A copy of the lesson format
is included in the Appendix.

The student is evaluated by both the master teacher and the
University faculty member (or M.A. student), and this may be done on any
one of the forms included in the Appendix. He is given a letter grade
which is later converted into a number grade.

CHAPTER 4

A Discussion of the Attitudes of Nova Scotia

Teachers Towards Teacher Training

Background of the Study

The difficulties involved in developing any type of
test to assess attitudes and attitude change have already been
discussed in Chapter One. The questionnaire which we have used,
a copy of which may be seen in the Appendix, is designed to
elicit a general attitude response. The deficiencies of this type
of questionnaire have already been pointed out in the first chapter,
and there is no question that in certain areas it can be criticized.
However, it is one mechanism, even if not the most sophisticated
one, for determining general attitudes among teachers.

Specifically the questionnaire touches on those points
considered to be of special concern among teachers. By noting the
similarities and differences with the studies discussed in Chapters
One and Two, one can get a much clearer grasp of the fundamental
problems involved when teacher education improvements are suggested,
and that, of course, is the essence of this work.

The questionnaire was constructed over a four month
period, and was amended, deleted, and added to by those in closest
contact with the problems of teachers, especially officials of the
Nova Scotia Teachers Union.

In December of 1969 a pilot run of the test was given
to twenty-four students enrolled in an M.A. psychology class at
Saint Mary's University, and their suggestions and criticisms
were assessed. A final copy was then drawn up and mailed to a
random sample of one thousand teachers in the Province of Nova
Scotia. After a two week period, three hundred replies had been
received. A follow-up letter increased the total to 419. This
was the final total with which we worked.

Teachers were asked to fill in six areas of information
on a standard computer answer card before answering the questions.
This information included the following:

1) The Teacher Training Institution attended

2) The Teaching Certificate held

3) The number of years teaching experience (up to nineteen
   or more years)

4) The position in Education (i.e., teacher, principal,
   supervisor, etc.)

5) The school level at which the individual worked (i.e.,
   elementary, junior-high, etc.)

6) The sex of the teacher

It was unfortunate that the replies from these different
categories were not more evenly distributed, and this must certainly
be considered by the reader when examining the percentage of the
replies in the Appendix.

Teachers were then asked to indicate on a five point scale the extent to which they were either in agreement or disagreement with the statement made in each of twenty-five questions. Hence, in the discussion of the results in this Chapter, a positive response pattern indicates agreement with the statement, and a negative response indicates disagreement.

For a more complete examination of the results, the Appendix may be consulted in which all of the percentage responses to the questions are given.

Question 1

This question attempted to discover the extent to which the student found his education courses intellectually stimulating.

Most of the responses to this question by the teacher training institutions were distributed in a normal way. That is, in most cases, about one half of the students in each institution found the education courses stimulating for the most part, with the remainder divided equally between more positive and less positive responses. The exceptions to this were Dalhousie, St. F. X., and those who did not supply information as to the institution they attended. A great many Dalhousie graduates found the education courses "non-stimulating for the most part", although there were none who answered the (e) section (non-stimulating). Almost one-half of the St. F.X. students also found the courses non-stimulating for the most part, although here again, there were no (e) responses.

Those who did not supply information on the institution attended, on the other hand, gave more positive response, with only a very small percentage selecting the (d) and (e) responses.

Generally, those with lower teaching certificates answered more favorably than those with higher certificates. The most negative responses came from those with TC5 certificates, which, for the most part, would include those individuals with a Bachelors degree and B. Ed. or a year of teacher training of some kind. Those with teachers certificates in the class of TC1-TC3 were quite positive in their response but the negative response (the "d" response) becomes quite marked at the TC4 level.

Those teachers with 19 or more years' experience gave the most positive response to question one. This may be interpreted in a variety of ways.

Teachers with from 6 to 10 years' experience gave the most negative responses, followed by those with one to five years' experience, and then those who are presently engaged in their first year of teaching. The range of experience from 11 to 19 years, gave the highest percentage of "c" responses (stimulating for the most part).

Teachers gave the most positive and the most negative response, while Teaching Principals, non-teaching Principals, Guidance Counsellors, Teaching Vice-Principals and others responded with answers which most closely resembled a normal curve. This was especially true of Principals, and to a lesser extent, Guidance Counsellors.

Elementary school teachers found their education
courses more stimulating than junior-high school teachers, and
junior-high school teachers found them more stimulating than senior
high school teachers. The difference, however, between elementary
and senior high teachers is quite marked, with over double the
percentage selecting the (d) response.at the senior high level than
at the elementary level. The combination junior-high-senior-high
response more closely followed the senior high response than the
junior high.

There were no significant differences between the
responses of male and female teachers.

There is the possibility that a teacher training insti-
tution with a large student population may be the cause of dissatis-
faction in this area. Specifically, we refer to the study of
Ziobrowski mentioned on page 97, whose conclusions indicate that
voluntary discussion groups create more favorable attitudes among
student teachers. In an institution with a large number of students
and lacking a large staff, there may be neither the time nor the
expertise to offer such discussions. If such were the case, the
problem raised by the students concerning the "stimulation" of courses
would not really be an intrinsic difficulty in course content, but
rather a difficulty caused by insufficient staff.

Question 2

The various training institutions were much more positive

in their response to question two, which was concerned with the
quality of the text books used in the education courses. All had
a high percentage of (a) and (b) responses, with only small (d)
responses. Dalhousie with only 19% had the largest number of (d)
responses, followed by those who took their teacher training some-
where other than those institutions mentioned in this study.

Those with lower teaching certificates gave slightly
more positive responses than the others, although the difference
was not substantial. Those with a TC7 license gave a greater
percentage of (d) responses (poor) than the rest, while on the
positive side the highest percentage of responses came from teachers
with no teaching certificate.

The number of years' experience does not appear signif-
icantly to affect responses to textbook quality. The percentage of
(c) responses (mediocre) seems to accelerate slightly between 3 and
7 years of teaching experience, although it declines again after
that point.

On the different positions in education, teachers
generally found the text books adequate, although a greater percen-
tage of teachers found them mediocre than non-teaching principals
who rated the texts as basically adequate. In contrast to this,
teaching principals were more critical of them, with half finding
them either mediocre, poor, or very poor. Guidance personnel were
almost equally divided between those who found the texts adequate,

and those who thought they were mediocre.

No significant differences were found among the various school levels. Almost without exception, there was approximately a 30-35% response to the (c) section (mediocre) with the remainder generally divided between (a) and (b) responses.

Again in question two, there was no significant difference in male and female responses.

Question 3

Question three dealing with the quality of teacher training instructors, met with fairly positive response. Hence the number of institutions with a high percentage of (d) responses (most poor-some good) was small. It is significant to note that even the (c) response (all fair) did not receive a high percentage of replies. Dalhousie had the highest percentage of unfavorable responses while the NSTC had in terms of (a) and (b) responses combined, the most positive. Most institutions had the greatest percentage of replies in the (b) section (most good-some poor).

Responses became more negative as the teaching certificate level increases, from the no TC level up to and including the TC5 level. However, the trend is reversed with the TC6's who are quite positive in their responses (89% answered (a) or (b)), but reverts to the former negative acceleration with the TC7 category. Those with a TC7 certificate give the greatest number of (d) responses followed by the TC5's, while those with no teaching certificate give

the fewest number of (d) responses, followed by TCl's.

The number of years teaching experience had little affect on responses to question three. Most had high percentage (b) section responses, with teachers of 2 years experience being the most critical and giving the greatest percentage of (d) responses.

All categories of position in education gave high percentage (a) and (b) responses, with the only deviation coming from that group which would not supply information on their position. This group gave a slightly higher (c) and (d) response.

Elementary teachers again were more positive in their responses than either junior-high or senior-high teachers, and the difference between elementary and senior high teachers was again quite clearly marked. While senior-high teachers gave the highest percentage of (a) responses (all good) among those who supplied personal data, they gave at the same time the lowest percentage of (b) responses and the highest percentage of (d) responses.

Male respondees were slightly more critical of their teacher training instructors, with a higher percentage of this group answering "most poor-some good". However, the difference between the response of the sexes is not great, and should not be given undue emphasis. Dissatisfaction with the teacher training instructor is given high priority in question twenty-seven. Such feeling again may be related to the size of the student body, which no doubt limits the

extent to which the professor or instructor can vary his approach.

Hence, the opportunity to direct small seminar discussions can be

reduced, and as Corrigan and Griswald pointed out in their research,

(p. 99) this might,in fact, hinder the development of a more positive

attitude. Another possible cause of dissatisfaction might be that

the instructor may be directing the course towards a grade level

other than that in which the student intends to work. This was

brought out in question 27, number fifteen.

Question 4

Question four was concerned with whether the education

courses gave a teacher an understanding of student needs. While none

of the teacher's responses from the various institutions gave high

percentage responses to the (a) section, approximately one-half of

the student replies answered the (b) section (moderate). Saint Mary's

had the highest percentage of (b) rsponses, but since the sampling

from that institution is so small, it must necessarily be questioned.

The next highest positive response, and we are referring here to the

(b) section, was the Nova Scotia Summer School. This may, of course,

be due to the fact that these students had an opportunity to study a

specific subject taught in the schools at a particular grade level,

and therefore had a program designed to satisfy a specific need. Nova

Scotia Teachers College was next in positive responses, but this was to

some extent offset by the high percentage of (c) section responses(very

little).

Dalhousie had a very high negative response to this question, much higher than any other institution.

Approximately 30-35% of those in the range of no teaching certificate, to Teaching Certificate Class 4 inclusive, responded to the (c) section of question four, with most of the remainder answering the (b) section. TC5's were most negative in their responses with a higher percentage stating that their education courses gave them very little understanding of students' needs. TC6's were slightly more critical of this aspect of their education courses, but less critical than the TC5's. All of the TC7's gave a negative response to the question, seven selecting the (c) response, and one selecting the (d) response.

The general pattern of an increase in teaching experience creating an increased negative response is obvious here, up to the level of nineteen or more years, where the critical response seems to decline. Those who are in their first year of teaching (1969-1970) gave the most positive replies, and those with from 6-10 years experience gave the most negative replies as determined by the total percentage of (c) and (d) responses. Those with from 11-19 years experience, however, gave the greatest percentage of (c) responses, (very little).

It would seem legitimate to suggest that those with higher teaching certificates and more years experience have no doubt taken a greater number of teacher training courses. The fact that these groups are the most negative respondees to question four, indicates a basic

agreement with the study of Ward and Bailey (p. 96) that involvment
with people is essential in changing attitudes, and that a course
offered in the traditional manner will have little affect on such
attitude change.

There was no significant difference in the replies from
the various positions in education.

Those who taught at the elementary level were much more
positive in their response than either the junior-high or senior
high personnel. Again there was a gradual increase in the percentage
of negative responses as the teaching level increased.

There was no significant difference between male and female
replies.

Question 5

Question 5 which dealt with the comparison in quality of
teacher training and non education courses, was not answered in a clear
pattern by the various institutions. Graduates of the Nova Scotia
Teachers College were most positive in their responses, as measured by
the percentage selecting the (b) and (c) response sections, i.e.,
"higher" or "same".

Acadia respondees were quite divided with almost a similar
percentage selecting both (c) and (d) responses, and the rest fairly
equally divided up among the remaining sections. Two-thirds of Mount
Allison graduates selected response (c) with the remaining one-third
selecting response (d). Mount Saint Vincent graduates were also

equally divided between the (c) and (d) sections, with the remain-
ing smaller percentage choosing the (b) response. Saint Francis
Xavier was almost equally divided between (b), (c) and (d) sections,
with a small number choosing the (e) section response, (much lower).
The small sampling of Saint Mary's students indicated a seventy-five
percent response to section (c) with the remainder choosing the (d)
response. Over one-half of the respondees from the Nova Scotia
Summer School chose the middle (c) response, with the remainder almost
equally divided between more positive and less positive replies. This
grouping had, however, the second highest percentage of (e) responses
(much lower), next to those students who attended two or more of the
teacher training instituations mentioned in the questionnaire. The
remainder of these groups' replies were generally divided quite evenly
among (b), (c) and (d) responses.

Dalhousie again had the highest negative response with
fifty-nine per-cent selecting the (d) response, and thirty-three per-
cent the (e) response.

An examination of the (b) and (c) responses shows that those
with a license category of a TC1 were reasonably positive in their
assessment of the quality of the teacher training courses. There was a
slightly more negative response from those with no teaching certificate,
and the trend continued to accelerate from the TC2 to the TC5 level, as
measured by the percentage of (d) and (e) responses. Those teachers
with a TC5 responded most negatively, having the highest percentage of
both (d) and (e) responses. TC6's were more positive than TC5's but

less positive than the range from no TC to TC4 inclusive. Teachers
with a TC7 were the second most negative respondees. There is, in
fact, a marked difference between lower and higher teaching certif-
icate responses, the former being much more positive than the latter.

While there is no consistent pattern to be discerned from
an examination of the number of years teaching experience, it appears
generally that those with fewer years experience are more critical of
their teacher training courses than the others. This is especially
true of those with two years experience, seventy-six per cent of whom
either found their teacher training courses to be lower or much lower
in quality than other courses which they have taken. This is especially
significant when compared with those of three to four years experience
who give a much more favorable response, especially when measured by
their (a), (b) and (c) section responses.

The least critical are those who have nineteen or more years'
experience. They have the lowest percentage of (d) and (e) responses
combined. As is observable from the tables, responses become gradually
less negative from eleven years experience to nineteen plus years, as
measured in the decline of (d) and (e) responses.

Teachers are slightly more critical than other positions in
education, except for teaching principals and those who responded to the
section designated as "other". It is interesting to note here than non-
teaching principals answered more negatively than teaching principals by
twenty-five percentage points as measured by the (d) and (e) response
sections. Guidance personnel were almost entirely positive in their

assessment, with only a ten percent (d) response.

Elementary teachers were again more positive in their
responses than either junior-high, junior-senior high, or senior-
high teachers. Again there was a gradual decline in positive
responses, as the teaching level increased. Thus, the senior-
high teachers had the highest percentage of (d) and (e) responses
while the elementary teachers had the lowest percentage.

There was no significant difference between male and
female responses to question 5.

Question 6

Question 6 dealt with the teacher's overall satisfaction
with their education courses. As measured by the (a) and (b) section
responses, that group which did not supply information on the institu-
tion attended reacted most favorably. The second most positive
response came from those who attended two or more of the institutions
mentioned, again using the same criterion of measurement.

Highly negative responses came from Dalhousie, which was the
most critical group as measured by (d) - "unsatisfactory" and (e) -
"very unsatisfactory" responses. Mount Allison had the next highest
"unsatisfactory" response, although it had at the same time similar per-
centages of (b) and (c) responses, with a slightly higher percentage of
more positive, than more negative replies. Generally, teachers with a
lower teaching licence answered more positively than those with higher
licenses. This difference is clearly obvious between TC1's and TC5's,
where in the latter case, the percentage of (a) and (b) responses declines
considerably, while the (d) responses increase at the same time.

This gradual negative attitude which develops with a license increase does not hold true, however, for the TC6 level. In this category there is a fairly high (c) response, a greater combined (a) or (b) response than the TC5's and also a smaller (d) response than the TC5's.

The number of years experience did not appear to influence greatly the response to satisfaction with education courses. We might point out the very general fact that more positive responses were forthcoming from those in the range of experience from 11 to 19 or more years. This, however, must be seen in the proper prospective, and an examination of the figures in the Appendix will show that the difference between this group and those preceding it, is not that great.

There was no significant difference in the responses among the various positions in education. In all cases, there was a high percentage of (c) responses.

Senior-high school teachers were again more critical than either elementary or junior-high school teachers.

In this particular question, although there is again a gradual increase in negative response with an increase in teaching license, we can legitimately group elementary and junior-high teachers on this point, since the percentage differences are quite slight. Senior-high teachers are significantly more critical than the other groups.

Males were slightly more negative in their response, but the difference in response according to sex is not at all great.

Question 7

     Question seven attempted to sample the number of educational
sources read by teachers during the past year. Most of the replies
from the various institutions indicate that little reading was done
which quite likely also negates any criticism that this question
would not be answered truthfully.

     As measured by the combined (a) and (b) responses, "6 or
more" and "5", Saint Mary's answered most positively, and Dalhousie
ranked second in positive responses. The teachers who read the fewest
books, as measured by the percentage of (d) - "1-3" and (e) - "none"
responses, are listed in order of most negative to least negative
response. They were: 1) Mount Allison 2) Mount Saint Vincent 3)
Those who would not supply information on the institution attended
4) Nova Scotia Teachers College 5) Those who attended an institution
other than those mentioned in the study 6) Nova Scotia Summer School
7) Saint F. X. 8) Acadia 9) Those who attended two or more of the
institutions mentioned 10) Dalhousie 11) Saint Mary's.

     Teachers with higher teaching certificates apparently read
more than those with lower certificates, although this was evident only
from the TC2 to the TC6 level included. TC7's did not read as much as
TC6's. With this exception, and the negative response of the TC1's as
measured by the (d) and (e) responses, the general trend as mentioned
above held throughout.

     There appeared to be little connection between years of exper-
ience and the number of books read in the past year. The most negative
response came from teachers with from 8 to 10 years experience as seen

from the (d) and (e) sections. This was followed quite closely by those who gave no personal data and then by those with only one years experience. There was, however, no consistent pattern which could be traced.

Apparently teachers and teaching vice-principals did not do a great deal of reading. Teaching principals did less reading than non-teaching principals, while guidance personnel did the most reading on educational subjects. A generalization could legitamately be posited that those who taught did less reading than those who did not, regardless of their position held.

The level at which the individual worked in the educational system did not have a great effect on the amount of reading undertaken. Senior-high teachers did the most reading as measured by combined (a), (b), and (c) responses but this was only by seven percentage points over the elementary teacher. While those in the junior-senior high category did more reading than either elementary or junior-high teachers using the same criterion of measurement, it was only by a few percentage points. To indicate that the increase in reading did not follow an accelerated pattern from elementary to senior-high school it should be noted that the amount of reading of elementary teachers was slightly higher than that of junior-high teachers.

Male teachers read more than female teachers as measured by positive (a) and (b) responses, and negative (d) and (e) responses, although the (c) response percentages were roughly equivalent.

Question 8

Results from question 8, which inquired into the number
of courses taken since the teacher began teaching showed that the
following most-positive to most-negative order resulted: 1) Saint
Mary's, 2) Two or more of the institutions mentioned, 3) Those who
would not supply information on the institution attended, 4) Nova
Scotia Summer School, 5) Nova Scotia Teachers College, 6) Acadia,
7) Two or more of the institutions mentioned, 8) Dalhousie, 9)
Mount Saint Vincent, 10) Mount Allison.

The level of teaching certificate did not appear to be an
especially significant determinant, although there is a slightly more
positive graduation from the TC3 to TC6 level. TC6's were by far the
most positive respondents as measured by the (a) response only,
although TC7's were quite positive when the (a), (b) and (c) responses
are included. TC1's were the most negative in their replies.

The number of years experience obviously affected the response
to this question, so we may conclude that the greater the number of years
teaching, the greater the number of education courses taken. The excep-
tion is that those with 19 or more years experience took fewer courses
than some with fewer years of experience.

It is not surprising to find that those in administrative or
guidance positions have taken more courses than teachers. The positive
responses from these groups was greater than from teachers with the excep-
tion of Teaching Vice-principals who were slightly more negative.

As measured by (a) responses only, senior high school teachers

answered more positively than elementary or junior-high teachers,
although the difference is not so great when (a), (b) and (c)
responses are included together.

There was no significant difference between male and
female teacher's responses.

Question 9

In questions nine, ten and eleven, an attempt was made
to investigate whether attitudes towards teaching were formed as a
student, and whether they might be difficult to change through a
teacher education program.

Question nine was designed to discover whether a "good
teacher" concept had been strongly developed before the commence-
ment of teacher training. All of the various institutions answered
in much the same manner, with the largest response percentage being
centered on the (b) and (c) sections, - "considerably strong" and
"moderately strong". Measured by the (a), (b) and (c) responses,
the more positive replies came from Dalhousie, Acadia, Saint Mary's,
and N.S.S.S., and more negative replies from Saint F. X., Mount Saint
Vincent, Nova Scotia Teachers College and Mount Allison. In all cases,
however, there was a substantial majority of positive replies as
measured by the (a), (b) and (c) sections.

Teachers with lower teaching certificates generally answered
more positively than those with higher certificates, although it must
be noted that the differences are not that marked, and that here again
there is an overwhelming preponderance of positive replies. The only

exception to this would be those with a TC7 certificate, who were equally divided between positive and negative responses.

Teachers in the first year of teaching were the most negative respondents to this question as measured by (d) - "very weak", and (e) - "no concept formed", sections. The next most negative replies came from that group with from six to ten years' experience, again using the same criterion of measurement. The most positive replies came from the group which had from one to five years' experience, followed by those with nineteen or more years' experience. In all groups, however, there was a strong majority of positive replies as measured by the (a), (b) and (c) sections.

Teachers as a group were very strongly positive in their response, while generally all administrators were less positive. Guidance personnel were the most negative respondents. Again, all groups had a heavy concentration of positive replies.

The school level at which an individual worked apparently did not affect his response to this question in any way. All responses were strongly positive.

Males and females answered in basically the same positive manner.

These results are in agreement with all of the studies on attitude development discussed in Chapter Two.

Question 10

In question ten an attempt was made to discover to what

extent the concept formed in question nine was based on the teacher's experience as a high school or university student.

Again the responses from most institutions centered on the (a) - "very great", or (b) - "moderate", sections. The more positive responses to this question came from Acadia, Dalhousie, the Nova Scotia Summer School, and Mount Allison, and those who attended an institution other than those mentioned in the study, as measured by the percentage of (a) and (b) responses. More negative responses were forthcoming from Mount Saint Vincent, Nova Scotia Teachers College and Saint Mary's as measured by the percentage of (c) - "very little", (d) - "none at all", and (e) - "answered 'e' in 9", responses. All institutions except Saint Mary's, however, had a fairly great majority of (a) and (b) responses.

All of the various levels of teaching certificate had high positive responses, with an increased teaching license appearing to be reflected in a more positive response.

The number of years' teaching experience did not have any significant effect on the response pattern, with all groups having a large majority of (a) and (b) responses. The most positive response came from the group with from one to five years' experience, while the less positive response was forthcoming from those engaged in their first year of teaching.

As a group teachers were overwhelmingly positive in their response, slightly more so than other administrative personnel. A

majority, however, agreed that the "good teacher" concept was to a significant extent based on experience as a high school or university student.

Senior high school teachers answered more positively than either elementary or junior-high school teachers, although elementary teachers responded more positively than junior-high school teachers. A great majority of all groups, however, were positive in their response. There was no significant difference in the responses between male and female teachers in Question 10.

These results concur with the findings of both Vernon Hall (p. 71), and Caroline Wasserman (p. 81).

Question 11

Question eleven attempted to discover the extent to which this concept was changed after teacher training. The general trend of the replies from the various institutions was slightly more positive than negative. This is measured by a comparison of the percentage response of the combined (a) and (b) sections, with the combined (c), (d) and (e) sections. Thus, St. F.X., Nova Scotia Summer School, and those who attended two or more of the institutions mentioned in the study, were significantly more positive than negative in their responses. Acadia, Mount Allison, Mount St. Vincent, Nova Scotia Teachers College, those who attended an institution other than those mentioned in the study, and those who would not supply information on the institution attended, were fairly equally divided between positive and negative responses, using this same criterion of measure-

ment. Sharply negative replies were forthcoming from Saint Mary's and Dalhousie. It would certainly be fair to say almost one half the graduates of most of the institutions mentioned in the study felt that their concept of the "good teacher" was not changed significantly after teacher training.

Teachers with lower teaching licenses generally answered more positively than those with higher licenses, although there was basically a fifty-fifty division between positive and negative responses in all categories.

The number of years' experience did not effect significantly the response pattern, and again we can say that there was generally 50%-50% positive-negative response. The same pattern of response was true for the various positions in education, although among the different levels in education, elementary teachers were slightly more positive in their response than either junior-high or senior-high teachers.

There was no significant difference between male and female responses.

Question 12

Question 12 asked: "To what extent do you feel an education program should be designed to teach classroom management?" For the most part the only variation in response among the teacher training institutions was in the emphasis put on either (a) or (b) responses, (very great) or (moderate). Most institutions emphasized the (a) and (b) response sections.

In the teaching certificate category, the majority of the responses was also in the (a) or (b) category with the TC7's having the highest percentage of (a) responses, and TC5's with the greatest combined (a) and (b) responses. The most negative response as measured by the (c), (d) and (e) response sections was found in the TC6 category. There was, however, no discernable pattern among the various categories of teaching certificate.

There appears to be a pattern of positive increase from teachers in their first year up to those with from three to four years as measured by combined (a) and (b) responses. However, this pattern is reversed in a negative direction from five years to fourteen years' experience. Nevertheless, the majority of responses in all cases is in the (a) and (b) sections.

The most positive response from the various positions in education came from supervisors and teaching vice-principals. The most negative response as measured by the (c), (d) and (e) response sections came from guidance personnel, teaching-principals, and non-teaching principals, in that order. Teachers were included between these two extremes.

Since this question gave some indication as to whether a teacher was oriented in a practical manner, it was of interest to see how the various levels in education answered, and whether such responses were related to those found in the study of James V. Mitchell mentioned on page 91.

As measured by the (a) and (b) response sections, a large number of elementary, junior-high and senior-high teachers feel that to a great extent an education program should be designed to teach classroom management. If such responses indicate a practical orientation on the part of teachers, the implications are unfavorable in all cases according to Mitchell's research.

There was no significant difference in male and female responses.

Question 13

Question 13 asked if there is anything of essential importance to a teacher beyond knowledge of the subject he or she teaches.

There was no substantial variation of response among the different institutions included in the study. All agreed that there was most definitely something more important than knowledge of subject matter. This pattern of response was also applicable to the teaching certificate category, the years' experience category, the various levels at which the teacher worked, and the sex of the teacher. There was, however, a slight deviation from this response pattern among the different positions in education. Supervisors tended to feel less strongly about the importance of something beyond knowledge of subject matter. This attitude was shared, albeit to a lesser extent, by guidance personnel.

In general, however, most teachers would agree with the findings of Vernon Hall that teachers who are only interested in subject matter are considered the worst, while those who also have a personal

influence are thought of as best.

However, there is the possibility of negative implica-
tions developing here. For according to the study conducted by
Sieber and Wilder (p. 100), mothers prefer a content-oriented style
in teachers. Further research, however, is needed in this particular
area.

Question 14

Question 14 attempted to narrow down the results of Question
13 by striving to ascertain in what area other than subject matter
knowledge, a teacher should be competently trained. The question,
therefore, elicited teacher reaction to the statement: "Your teaching
experience has shown that teacher training time would be better spent
on courses you will be teaching, rather than on professional education
courses." The results may be compared with Pinckney's 1962 study which
we have discussed on page 94.

Teachers from Mount Allison were most in agreement with this
statement, as measured by the percentage of (e) responses, while
teachers from Acadia registered the highest percentage of disagreement.
Most of the remaining institutions had a concentration of (c) responses
(agree in part), with the remaining responses divided equally between
the positive and negative categories. Saint Mary's had a 100 per cent
(c) response.

There was little difference in the responses among the various
teaching certificates. Most had a concentration of (c) responses, with
the remainder divided between positive and negative responses.

This pattern was also generally true for the different years experience except those with either no experience or those with two years' experience. In both cases, especially those with two years experience, a much more positive response to the statement was forthcoming.

Guidance personnel responded in a highly negative manner, while the remaining positions in education generally followed the pattern which we have already mentioned.

The various levels of education, as well as the sexes, also responded in a manner which could be described as a normal curve.

Question 15

In question 12 we have seen that a fairly great majority of teachers feel that an education program should be designed to teach classroom management. Question 15 attempted to discover if teachers felt that in fact, this was done.

Graduates from Dalhousie gave the most negative response, followed by Mount Allison, as measured by the (d) and (e) response sections. The most positive responses as measured by the (a) and (b) sections came from the Nova Scotia Teachers College, followed by the Nova Scotia Summer School. The remainder had their concentration in (c) and (d) response sections, (moderate) or (very little).

In all of the other categories included in the study, there seemed to be a concentration on the (c) response, with the remainder concentrated in a slightly more negative than positive manner.

Question 16

        Question 16 attempted to discover the extent to which
the teacher training program was designed towards developing an
individual as a professional.

        The most positive response as measured by the (a) and
(b) sections came from Acadia, followed by those who attended an
institution other than those covered in the study. Next in posi-
tive response were graduates of two or more of the institutions
mentioned in the study. The most negative response came from
graduates of Dalhousie University, followed by graduates of Mount
Allison. The remainder had a high percentage of (c) responses,
with the remainder divided fairly evenly between positive and
negative responses.

        Those teachers with Teaching Certificates Class one to
class four registered the highest percentage of positive response,
as measured by (a) and (b) response sections, while those in the
category of TC5 to TC7 had a high percentage of (c) responses,
with the remainder almost equally divided between positive and
negative responses.

        Teachers in their first or second year of teaching felt to
a greater extent than the others that their training program had been
designed towards developing them professionally. The most negative
response as measured by the (d) and (e) sections was forthcoming
from those with two years experience, followed by those with five to
seven years experience.

The various positions in education had a higher concentration of (c) responses than the other categories discussed in the study. Teachers gave the most positive response as measured by the (a) and (b) sections, and teaching vice-principals gave the most negative replies as measured by the (d) and (e) response sections.

There was no consistent response pattern among the various levels in education. Most had a high percentage of middle responses, with the remainder weighted slightly more positively than negatively. The exception here was senior high-school personnel who were more negative in their response. The most positive response came from the combined junior-high, senior-high level.

There was no significant difference in the responses of male and female teachers.

Question 17

Question 17 was concerned with the extent to which success in practice teaching was related to success in the individual's teaching career.

The most positive response among the various institutions came from Dalhousie University, as measured by the combined (a) and (b) responses, (very great) or (considerable). This was followed by Mount St. Vincent and Acadia. The greatest percentage of negative responses came from Saint Mary's, followed by those who attended two or more of the institutions mentioned in the study.

Those with teaching certificates class six or seven generally felt that there was no great relationship between success in practice teaching and success in their teaching career. However, those in the range of No-TC to TC4 felt that there was a significant relationship between the two.

It seems as if the length of the teaching career had some effect on these results. Those teachers with nineteen or more years experience gave the most negative replies, followed by those with from eight to ten years and then those with from fifteen to nineteen years. The highest percentage of positive responses was found among teachers with one year's experience, followed by those in the three to four year range.

The most positive response among the various levels of education as measured by the (a) and (b) sections was found among the supervisors, followed by guidance personnel. Teaching vice-principals recorded an extremely high negative response (76%) as measured by the (d) and (e) sections. Teachers were more positive than negative in their responses.

No consistent pattern could be discerned from the various levels in education. The combined junior-senior high category registered the most positive response, while the junior-high category by itself registered the most negative. The elementary level registered a higher percentage of positive responses than the senior high level, or the junior high level.

There was no significant difference in male and female responses.

Question 18

        Question 18 was concerned with the extent to which the

supervisor from the teacher training institution assisted the

individual in his practice teaching.

        There were no high positive responses as measured by the

(a) and (b) sections, from any of the institutions. Nova Scotia

Teachers College had the highest percentage (29%), which was

equaled by those who attended two or more of the institutions men-

tioned in the study. Except for Mount Allison and Saint Mary's who

registered a majority of (c) responses (moderate), the remainder

were weighted negatively. The highest negative response came from

Dalhousie (74%) as measured by the (d) and (e) sections, (very little)

or (none at all).

        The number of years experience was in no way related to

consistency of response.

        It is somewhat surprising to note that teachers were just

about the least negative respondees to this question. The remainder

of the various teaching levels, (excluding guidance personnel) were

quite critical, especially teaching vice-principals.

        There was no great difference in the responses among the

various levels of education, nor between the responses of the sexes.

Question 19

        Because the responses to question 19 are open to a variety

of interpretations, they have not been broken down in this section.

The question wanted to find out the extent to which the attitude of

the teacher toward the teaching profession changed as a result of practice teaching. The answers to such a question depend on how successful the individual was in his practice teaching before or after he was employed as a regular classroom teacher. The results to this question can, however, be seen in the Appendix.

Question 20

Question 20 was concerned with the extent to which education courses taught the teacher to be sensitive to the individual differences of students.

The response patterns varied considerably from one institution to another in this question, however, generally the replies were weighted in a positive direction. As measured by the (a) and (b) responses combined, Mount Saint Vincent was most positive in their replies (100%). They were followed by St. F. X. (76%) and those who attended an institution not mentioned in the study (66%), again using the same criterion of measurement. There were no high negative responses.

This same type of positive response is observable from an examination of the teaching certificate held, and the number of years' experience, although those with more than four years' experience are slightly more negative than the others.

The various positions in education leaned in the positive direction, as did the various levels at which the teacher worked.

The percentage of male and female responses to the various sections was almost identical.

Question 21

        Question 21 asked: "To what extent do your methods of
teaching resemble the methods taught in your methods courses?"
Acadia had a 50% (c) response, (moderate), with the remainder
divided slightly more negatively than positively. Saint Mary's
had the highest negative response as measured by the combined
(d) and (e) sections, and they were followed closely by Dalhousie.
The most positive response came from those who attended a teacher
training institution not mentioned in the study, and they were
followed by graduates of the Nova Scotia Teachers College and the
Nova Scotia Summer School. The remainder of the institutions had
slightly more negative than positive responses.

        The most positive response from among the various teach-
ing certificates was from those with no teaching certificates, as
measured by the combined (a) and (b) response sections. The most
negative response, as measured by the combined (d) and (e) response
sections, was forthcoming from those with a TC7 certificate. How-
ever, this is not indicative of a graduated positive to negative
response pattern from a low teaching certificate to a higher one.
In fact, there was no consistent pattern to be discerned from the
other teaching certificates.

        The pattern found among the years experience category was
that with increased experience the (c) response section was more
highly emphasized. The remaining responses were divided slightly
more positively than negatively among those with few years experience,
a pattern that was reversed with increased experience.

Teaching vice-principals were by far the most negative respondees to this question, (74%) as measured by the combined (d) and (e) response sections. Non-teaching principals and teachers were the most positive in their responses. The remainder of the positions in education were fairly evenly divided up between positive and negative responses. There was no significant variation in response forthcoming from the various levels in education.

Females answered slightly more positively than males as measured by the combined (a) and (b) response sections, although males had a higher (c) response.

Question 22

Question 22 was concerned with the extent to which the individual's teacher training program was effective in developing the ability to systematically evaluate his or her teaching behavior.

Among the various institutions, there was no high positive response as measured by the combined (a) and (b) sections. In most cases there was a high (c) response with the remainder divided more negatively than positively. This pattern was also true for all categories of teaching certificate except those who had no teaching certificate, who were much more positive than negative in their response. This high (c) response pattern was also found among the various categories of years experience, again with the remainder divided up more negatively than positively.

As measured by the combined (d) and (e) response sections teaching vice-principals were quite negative in their replies, and

they were followed by guidance personnel. The remainder gave high
(c) responses with the remainder fairly equally divided up between
positive and negative responses.

Senior high personnel were more negative in their replies
than elementary teachers, but slightly less negative than those in
junior high. The combined junior high, senior high group had a
high (c) response, with the remainder slightly more negative than
positive.

Responses of male and females were again almost identical.

Question 23

Question 23 dealt with the effectiveness of the teacher
training program in providing the teacher with a mechanism to eval-
uate himself in terms of whether or not he should be in the teaching
profession.

Most of the responses from the various institutions were
weighted more negatively than positively. An extremely high negative
response came from Dalhousie University (85%) as measured by the
combined (d) and (e) response sections. Saint Mary's and Saint F. X.
followed next in negative response using this same criterion of measure-
ment. However, it must be noted that Saint Mary's also had a high (50%)
(c) response section.

Those teachers with no teaching certificate had the highest
positive response while those with a TC7 had the highest percentage of
negative responses. The remainder had a higher percentage of negative
than positive responses.

The number of years experience did not seem to be a
determining factor in the replies to this question. The same was
true for the position in education and the level at which the
individual worked. In both cases the responses were more nega-
tive than positive.

There was no significant difference in male or female
responses.

Question 24

Question 24 inquired into the desirability of having an
internship program included in the teacher training program. Since
all categories answered in a positive manner there is no need to
disauss the break-down of this particular question.

Question 25

Question 25 was an attempt to elicit a specific response
as to the area in which teacher training might best be improved.
Because of its specific nature, again no discussion will be made of
the responses, for the reader may simply refer to the Appendix at
the end of this work.

Question 26

Questions 26 and 27 both asked for written essay answers.
Listed below in the order of importance according to the number who
made each statement are these replies.

Question 26: What were your primary motives for taking a
teacher training program?

1) Interested in children

2) To learn something about teaching

3) Need for money

4) I had always wanted to be a teacher

5) Because I needed the license to teach

6) Because of the influences of good teachers I have had

7) To serve my community

8) Vacation

9) Family pressures

10) I couldn't get any other kind of job

11) I thought I could do a better job than my own teachers

12) I felt that I would be a good teacher

13) I wanted to follow in my mother's footsteps

14) To raise my license

15) Security

16) I couldn't get into graduate school

Question 27

Question 27: What suggestions would you offer for improving teacher training programs?

1) Much more actual classroom experience ((practice teaching, observation, etc.)

2) A more practical approach, i.e. classroom management

3) Teacher training professors should learn how to teach and know something about the new methods of teaching

4) Learn about new innovations in teaching and the technological improvements

5) More stress on methods courses

6) Increase the number of years of teacher training

7) More discussion between the supervisor and the
   student teacher in practice teaching (the implica-
   tion here was that the supervisor should be a
   positive help rather than just a judge)

8) Student teachers should be shown that they won't
   always be working under ideal conditions

9) There should be less emphasis on subjects that
   don't have a direct bearing on subjects taught in
   the schools

10) More child psychology

11) More careful screening of applicants

12) More emphasis on professional subjects

13) A course should be provided on how to best assist the
    very poor or the very good student

14) There should be an internship program

15) There should be specialized training for the particular
    level at which you intend to teach

16) There should be closer observation of student teachers

17) Practice teaching should be a time when students can
    try new methods and not worry so much about how they
    will be evaluated

18) There should be one central teacher training program for
    the entire province

19) There should be a course offered in school law

20) There should be a closer liason between training insti-
    tutions and the schools

Conclusions

One of the most obvious results of this brief look at
attitudes towards teacher training should be that it would be
dangerous, and perhaps even futile to set out any preferred
teacher education program. This is said because in this work the
difficulty of validating any single element as the root source of
the problem in teacher education has been almost impossible.

To make any progress in this area, teacher educators
must first admit that they are relatively ignorant of any solutions
to the problem. For in actual fact, very little is known about the
teaching process. The only really sound basis for a teacher educa-
tion program would be a long term and carefully planned research in
the field. Otherwise developments will be restricted to the numerous
innovations which manage only a very short term, and often unhappy
existence. A teacher education program must have a very real raison
d'etre.

One of our major reasons for concluding this is that appar-
ently the classroom performance of teachers is little affected, after
the first year or two in the profession, by what has been taught
during training. There is a wide gap between teacher education and
teacher behavior.

To where does one look to find the solution to such a
problem? Dr. James Cooper, Director of Teacher Education at the
University of Massachusetts, in addressing delegates on March 6th at
the Teacher Education Conference sponsored by the Nova Scotia Teachers
Union attempted an answer, which, in view of our study, seems to be

quite legitimate. He felt that teacher education programs are
designed in such a way that they frequently take into account only
one data source, i.e., teacher educators and their peers. He feels
that there should be constant assessment of all clients, including
students, teachers, administrators, parents, and departments of
Education, if a program is to be successful.

This, in fact, has been the basic point of this work.
That is, that there are a great number of individuals involved who
do, in fact, affect the attitudes of the potential teacher to his
profession. If such individuals are ignored in the planning of a
program, then some very strong attitude "developers" are ignored,
thus creating the danger that the training program will ultimately
be ineffective.

We do not pretend to know how these various individuals
and groups should be included in preparing a training program. We
do know that they have a great effect on attitude formation. In
view of this, instead of making recommendations for improvement, we
shall raise a series of questions, which, if properly researched in
light of the results of our questionnaire and the studies we have
examined, might eventually lead to a greater understanding of teacher
education.

1. Should more attention be paid to the personal characteristics
   of those who aspire to the teaching profession?

2. Should the teacher training period be more than one year?

3. Should teacher educators be selected from highly successful
   teachers who have undertaken advanced studies to qualify for
   appointment?

4. Do teacher education centres have a responsibility towards their graduates even after they are in the profession?

5. Is there a hindrance in the evaluation of practice teaching?

6. Is there a need for more emphasis on child psychology?

7. Should there be more time spent in practice teaching?

8. Would it be beneficial to have greater co-operation among the various teacher training institutions in the Province of Nova Scotia?

9. Should the number of candidates in a teacher training program in any one year be restricted?

APPENDIX I

DALHOUSIE UNIVERSITY

TEACHER RATING SCALE

I. Personal Cognitive Characteristics

A. Intellectual Process

1.   2.   3.   4.   5.

Flexible   Rigid

Ideas and language appropriate to   Teaches at an abstract level of
age and ability level of pupils and   language; ideas too advanced for
subject matter.   pupils. A significant proportion
                                           of pupils do not appear to under-
                                           stand what the intern is saying.
                                           Intern apt to ambiguous meaning
                                           of own language.

B. Behavior under Stress

1.   2.   3.   4.   5.

Flexible   Rigid

Stress and anxiety do not drastically   Under stress, the perceptual
narrow the perceptual field. Intern   field is narrowed--intern misses
remains "open"--sees what is going on   pupils' inattentions and contri-
and can report the range of behavior in   butions. Inability to focus on
the class.   individual and group at the same
                                           time.

C. Perspective of Self

1.   2.   3.   4.   5.

Flexible   Rigid

Proper perspective of self is main-   Cannot see self or situation in
tained; can use humor and other de-   perspective. Intern makes
vices to look beyond the immediacy of   excuses, is on defensive, may
a situation. Perceives what she is   blame disinterested pupils or
doing in class, suggests new strategies,   poor direction by supervisor.
and makes good use of supervisor's   In the extreme, intern considers
suggestions.   giving up teaching.

D. Anxiety and Planning

1. 2.   3.   4.   5.

 Flexible   Rigid

Anxiety provides a spur to increased Anxiety inhibits cognitive process,
purposeful effort; concern for plann- poor lesson plan and time, gets
ing and a consideration of alternate   trapped in digressions, cannot
ways to communicate content and/or   handle the unexpected.
relate to pupils. Can plan for the
unexpected.

E. Overall Rating for Intellectual Process--Manner and Cognitive Style in Dealing with Teaching

1. 2.   3.   4.   5.

 Flexible   Rigid

Optimal use of intellect. Plans,   Overly theoretic approach is
ideas, and language used are functional general. Intern over-intellec-
to pupil learning.   tualizes planning, teaching
               and contacts with pupils.

F. Comments on Intellectual Process:

II. Cognitive Attitude Toward the Pupil

A. Responsiveness

1. 2.   3.   4.   5.

 Flexible   Rigid

Intern is responsive to the class; sees, Intern does not register "clues";
listens, and responds to discipline prob- children's problems are tuned out.
lems, inattention, learning difficulties, Calls on bright students too often
students' need for new knowledge and and doesn't recognize when to call
creativity.   on the slow child.

B. Attitude

1.   2.   3.   4.   5.

   Flexible   Rigid

Intern views pupil as a partner in educational process.

Intern looks down on pupil; patronizes pupil intellectually.

C. Judgments

1.   2.   3.   4.   5.

   Flexible   Rigid

Intern witholds judgments about pupils' ability and performance until she has adequate evidence. Uses a balance of positive rewards and constructive criticism.

Intern makes quick judgments and is unlikely to look for contradictory evidence. May tend to employ negative criticism; picks the pupil's answers apart.

D. Overall Rating for Cognitive Attitude toward the Pupil as a Person

1.   2.   3.   4.   5.

   Flexible   Rigid

Intern recognizes important signals from the class, sees pupil as having a substantive role, makes judgments carefully.

Intern is not sensitive to feedback, looks down on the pupil, and makes snap and categorical judgments.

B. Comments on Responsiveness:

III. Cognitive Attitude Toward the Communication of Subject Matter

1.   2.   3.   4.   5.

   Flexible   Rigid

Lesson plan is seen as a vehicle; modification and elaborations are made when and where appropriate.

Literal adherence to lesson plan; sets up what class must do. Teaches a lesson plan rather than the pupils. Ignores pertinent related ideas of pupils.

B. Teaching Method

1.	2.	3.	4.	5.
	Flexible			Rigid

Intern displays a variety of suitable teaching methods, eg., inductive questioning, dramatization, role playing, projects.

Intern relies on only one or two teaching methods.

C. Teaching Goal

1.	2.	3.	4.	5.
	Flexible			Rigid

Teaching for inquiry; interested in means as well as ends; explored where the pupil got off the track. Can flexibly handle unfamiliar content.

Emphasis on ends; assumes a right answer that must be attained the teacher's way. Deals ineffectively with unfamiliar content.

D. Overall Rating for Cognitive Attitude

1.	2.	3.	4.	5.
	Flexible			Rigid

Intern uses a variety of methods, flexibility in implementation of plans, and employs inquiry for effective teaching.

Uses few teaching methods, adheres to one or two formats in planning lessons, and employs a prescriptive rather than problematic teaching approach.

E. Comment on Use of Lesson Plan:

APPENDIX 2

DALHOUSIE UNIVERSITY

TEACHING OBSERVATION REPORT

Date _____   Student's Name _____

SCHOOL_____   Mark for This Lesson _____

GRADE_____   OBSERVER'S NAME_____

NAME OF REGULAR TEACHER _____

LESSON OBSERVED_____   LENGTH OF OBSERVATION_____

APPENDIX 3

PRACTICE-TEACHING APPRAISAL SCALE
Mount Allison University

Department of Education

Name _____   Date _____

Class Observed _____   School _____

Lesson Observed _____   Length of Observation _____

Observer _____

I. ESSENTIAL

	Excellent	Good	Pass	Inadequate
1. Ability to provide an environment to involve pupils				
2. Subject-matter competence				
3. Ability to communicate or to relate				
4. Appropriateness and/or variety of methods used				
5. Sensitivity or perceptiveness of pupils' needs				
6. Ability to handle discipline problems, if any				
7. Appropriateness of the pace of the lesson				
8. Accomplishment as revealed by recapitulation, summary or other technique.				

II. OPTIONAL

1. Clarity of objective(s) in accord with, for example, Bloom's taxonomy or Mager's approach.

2. Neatness of board work

3. Manner -- posture, dress

III. OVERALL PERFORMANCE

- 2 -

IV.   A. Specific, Descriptive Comments:

B. Overall qualitative appraisal:

APPENDIX 4

MOUNT SAINT VINCENT UNIVERSITY

EDUCATION DEPARTMENT

Re: Observation and Practice Teaching 1968 - 1969

First Week

Monday: Observation
Present yourself to the Principal of the school about 8:30 if you have not already done so.
Observe in the assigned classroom for the entire day. Note the names of children, etc.
Confer with the co-operating teacher concerning the lessons you will be teaching during the week.

Tuesday: Participation
You are encouraged to be helpful in the classroom and to accept any responsibility assigned by the co-operating teacher, such as lines, recess duty, correcting papers, etc.

Teach one lesson. (optional)

Wednesday: Extending Participation
Continue to follow routine duties.
You are expected to do some independent teaching in arithmetic and/or the language arts.

Thursday: Extending Participation
Teach three lessons: arithmetic, language, and one other area.

Friday: Directed Student Teaching
You are expected to teach all the lessons in the morning session.

Second Week

The aim of the second week is to be as much as possible on your own. On Monday, the co-operating teacher might wish to start the class off, but the student teacher should try to work into full control as soon as possible. Try to assume full responsibility for a full teaching program on Tuesday, Wednesday, and Thursday. Friday is a difficult day and will be left to the judgment of the co-operating teacher.

Re: Lesson Plans

1. No lesson may be taught unless it has been well planned in advance.

2. Detailed lesson plans (following the prescribed format) should be presented to the co-operating teacher for approval before the lesson is taught.

3. During the second week when the student is teaching all day, a more general plan, similar to the one followed by the co-operating teacher, may be used. In each case, the following ought to be included as the minimum requirement:
    a. aim of the lesson
    b. content to be covered
    c. assignment to be given

4. A complete lesson plan prepared according to the standard
   form must be prepared for the lesson to be presented at
   the time of the university supervisor's visit. The plan
   should be given to the supervisor at the beginning of the
   lesson.

5. All plans, accompanied by the co-operating teacher's written
   evaluations, and suggestions, and the student teacher's
   critical self-evaluations, should be submitted to the
   Director of Student Teaching by Friday, December 6, 1968.

6. A written log of all experiences during the fifty hours of
   observation and practice teaching must be kept, and submitted
   to the Director of Student Teaching. It is suggested that
   this be written on loose leaf paper at the end of each day.
   This record should begin with your meeting the principal,
   and should include your orientation to the school, your
   experiences in observation, participation, and actual
   teaching, your attendance at staff meetings.

Re: Absences

1. Please call the co-operating school before 8:30
2. Please call the switchboard at Mount Saint Vincent University
   454-9372 by 8:30.
3. On the first day back on the campus, please fill out absence form.

FORMAT FOR LOG

Student Teacher _____

Address _____

Telephone _____

Co-operating School _____

Co-operating Teacher _____

PROFESSIONAL LABORATORY EXPERIENCES

Observation
Give an account of your experiences in observation for each day.

Participation
This includes any duties other than actual teaching--like recess duty, lines,
correcting papers, etc.

Actual Teaching
This includes for each lesson, the curriculum area, the specific area of the
lesson, length of lesson, and whether the class was taught as a whole, in
groups, individually, etc.

Other Experiences
Anything that you would like to direct attention to, that is not included in
the above categories.

Day _____   Date _____

Evaluation
At the conclusion of your log, there should be an evaluation of the student
teaching experience. You should indicate its special advantage and disadvantages,
areas in which you felt well-prepared and those in which perhaps your preparation
might be improved.

APPENDIX 5
MOUNT SAINT VINCENT UNIVERSITY

EDUCATION DEPARTMENT

STUDENT TEACHER APPRAISAL FORM

Student Teacher........................Co-operating Teacher............................

School... Grade ....

Date..

Personal Traits and Qualities	E	VG	G	F	P
1. Personal impression (appearance, poise, vitality)........					
2. Voice (rate, pitch, volume, articulation)...............					
3. Use of English...					
4. Attitude towards teaching...............................					
5. Sense of professional ethics............................					
6. Maturity and emotional stability					
7. Professional relations with school staff...............					
8. Good humor before the class............................					
9. Willingness to accept constructive criticism...........					
10. Ability to evaluate self..............................					
11. Punctuality and regularity of attendance.............					

Instructional Compentencies					
1. Knowledge of subject matter............................					
2. Ability to establish rapport with students............					
3. Routine of classroom management.......................					
4. Control of group behavior.............................					
5. Ability to plan instruction effectively..............					
6. Ability to select and use instructional materials......					
7. Ability to individualize instruction.................					
8. Initiative, resourcefulness, creativity..............					
9. Ability to stimulate intellectual curiosity..........					
10. Skill in questioning................................					
11. Quality of log (university supervisor only).........					

Make a check mark on the line below at the point which indicates the degree to which the student teacher gave evidence during this observation that she is an acceptable beginning teacher.

Key: High indicates unusual competence and very satisfactory performance.
     Average indicates that present performance is satisfactory.
     Low indicates unsatisfactory performance.

High   Average   Low

Comments: Please use the reverse side for further comments.

APPENDIX 6

MOUNT SAINT VINCENT UNIVERSITY

EDUCATION DEPARTMENT

Student Teacher Code of Ethics

A. Student Teacher and Pupils

1. All information about pupils is to be kept confidential.
2. Be more concerned with what is being achieved with the children than with impressions being made on the supervising teacher or the supervisor.
3. Maintain the dignity necessary to gain the respect of pupils. Always act like an adult.
4. Show high regard for each child. Show enthusiasm for each area of the curriculum that you teach.
5. Be sympathetic and courteous to all pupils.
6. Consider yourself a member of the community in which you are teaching and act accordingly.
7. Disciplinary measures used by the student teacher should conform to the policies and instructions of the supervising teacher.
8. Be a good example to your students in every way — physically, mentally, and morally.
9. Be just as interested in and just as ready to assist with the improvement of the class as if it were your own.
10. Recognize that each child is an individual, and take into consideration individual abilities, interests, and capabilities of learning.
11. Be impartial in dealing with pupils, and strive to be fair to while judging a pupil's action.
12. Refrain from imposing your own religious or political views upon your pupils.

B. Student Teacher and Supervisors

1. Consider a supervisor as one who is helping you to become a competent teacher.
2. Attention of the pupils must not be drawn to the supervisor, or to the liklihood of a visit by the supervisor, unless instructions are received to the contrary.
3. Provide the supervisor with plans, textbooks, or the materials being used. This should be done before the class starts. There should be no reason to converse with the supervisor during the class period.
4. When the class begins, concentrate on the lesson, and forget that you are being observed by a supervisor.
5. Provide time in which you and the supervisor may have a conference in order to discuss problems in teaching.
6. Be appreciative of suggestions and do not hesitate to ask advice.

C. Student Teacher and Co-operating Teacher

1. Remember that the supervising teacher is in legal control of the class and is legally responsible for it.
2. You and the supervising teacher should respect one another's professional rights and personal dignity.
3. Accept the supervising teacher's decisions concerning the materials to be covered and the method of presentation.
4. Assume no authority that has not been specifically delegated by the supervising teacher.

5. Learn definitely what is expected of you by the supervising teacher.
6. Complete co-operation should be established between you and the supervising teacher; conferences should be held as scheduled.
7. The supervising teacher is eager to help; suggestions and criticism should be accepted by you with this in mind.
8. Support the supervising teacher in matters of school discipline.
9. Have your lesson plans checked by the supervising teacher in accordance with policies that have been made.
10. Cheerfully perform any task which will aid the supervising teacher in conducting the class. Be imaginative and creative in making suggestions and planning.
11. Give due credit to the supervising teacher for all the assistance given to you.
12. If you feel that you are having difficulty in the situation, you should first consult the supervising teacher. If the results are not satisfactory, you should speak to the Director of Student teaching.

D. Personal Attributes and Professional Growth

1. Respect those with whom you work -- Supervising teacher, supervisor, administrator, and fellow student teachers.
2. Remember that student teaching is a learning situation; be willing to receive suggestions and carry them out.
3. Adapt your behavior and practice to the situation in which you are doing your student teaching. Be guided by what is considered acceptable in your particular room, school, and district.
4. Acquaint yourself with the professional organizations. Read professional literature.
5. Manifest genuine pride in the teaching profession.
6. Consider yourself a member of the profession and act in all matters according to its code of ethics.
7. Know the legal responsibilities of teachers in your area.
8. Strive always to broaden your knowledge and to be well-informed of current events.
9. Attend and participate in the non-classroom duties of the supervising teacher.
10. Be well-groomed and practice sound principles of hygiene and good taste.
11. Display a democratic attitude toward all the teachers in the school in which you are placed.

APPENDIX 7

NOVA SCOTIA TEACHERS COLLEGE

THE ROLE OF THE TEACHER-INTERN

The primary role of the teacher-intern is to learn the basic skills of teaching through directed periods of observation, participation and actual teaching in the classroom.

In order to successfully fulfill this role, it is imperative that the teacher-intern be cognizant of accepted procedures and directions. Subsequent evaluation will recognize and take into account the teacher-intern's understanding and application of the directions and procedures which follow:

1. Arrive at the schools in town at least by 8:45 a.m. and 1:15 p.m. Be punctual at all times. (Teacher-interns assigned to schools outside Truro will be at the main entrance of the Administration Building at the designated time. Transportation will be provided.) Your hours in the school are to parallel those of the supervising teacher.

2. On arrival at the school on the first day, report to the principal and introduce yourself.

3. On the first day, after having reported to the principal, report to the teacher to whom you have been assigned and discuss ways in which you can fit into the over-all progtam of her classroom and (or) her schedule.

4. Remember that you are under the direct supervision of the supervising teacher, who in turn, is under the supervision of the principal. You have responsibilities to both of these individuals.

5. At all times, the teacher-intern is to remember that he is a working partner in the school where observation, participation, and practice teaching are carried out. Considerate, co-operative, and courteous attitudes are essential in maintaining a good relationship with the staff of the participating schools.

6. Make certain whether the staff room or other facilities are available for the use of teacher-interns.

7. Lessons assigned are to be accepted graciously and are to be carefully prepared.

8. Be receptive to constructive criticism and suggestions offered by the supervising teacher.

9. In order to be certain that you understand the assignment and scope of any and all lessons made, feel free to consult the supervising teacher and (or) Teachers College personnel for advice in the preparation of lessons.

10. Assigned lessons are to be recorded promptly on sheets provided and passed into the Teachers College at a time which will be designated.

11. If it should be necessary to borrow anything from the school, obtain permission and be sure to return promptly.

12. Obtain all books and material from the Teachers College as long as the supply lasts.

13. Return all materials and books borrowed from the College at end of day on which used, because other teacher-interns may need them. Get stencils from the Teachers College.

14. All stencils should be run off at the College and not in the schools. Mimeographing may be done in Room 221.

15. See that written assignments given to the pupils by you are carefully checked if this is the understanding between the superivising teacher and yourself.

16. Determine from the supervising teacher the specific exercise book to be used for written work you may be asked to assign.

17. Prepare all lessons outside observation periods. When not teaching, you should be: (a) observing your partner teach; (b) correcting pupils' exercises, workbooks, etc. In co-operation with the supervising teacher, keep yourself profitably occupied; no value is gained by filling in spare periods by sitting in the staff room of a school.

18. Teacher-interns are responsible for the discipline of the class while teaching. It is well to remember that students tend to follow the behavior pattern set by the teacher. A poised, dignified teacher normally conducts a class in an orderly manner.

19. You are required to keep a logbook in order that there may be a tangible record of progress and achievement.

NOVA SCOTIA TEACHERS COLLEGE

SUPERVISING TEACHER'S REPORT

Teacher-Intern's Name _____

Class _____ Number _____

School _____ Grade _____ Date _____

(Place ✓ in appropriate box below)

Rating scale runs from one through five. A one would be the lowest score and five would be the highest level possible.	Superior 5 4	Acceptable 3 2	Unacceptable 1
1. Preparation (Adequate knowledge, planning, originality, organization)			
2. Presentation (Questioning, logical sequence, use of aids, lesson summary, achievement of purpose)			
3. Class motivation techniques which would indicate degree of control and management.			
4. Language usage and voice (Language-correct, clear, fluent; good enunciation, proper pronunciation; voice - audible, pleasant, well-modulated)			
5. Personal qualities (Grooming, vitality, poise, initiative, alertness, cheerfulness, punctuality, etc.)			
6. Overall Rating (considering above items.)			

General Remarks: (Note any particular strengths or weaknesses here)

Is this a person you would like to work with professionally? _____ Yes _____ No.

_____

Supervising Teacher

APPENDIX 9

SAINT MARY'S UNIVERSITY

DAILY LESSON PLAN FOR STUDENT TEACHERS

<u>STUDENT TEACHER</u>..............................<u>DATE</u>.................<u>SUBJECT</u>................

<u>GRADE</u>...................

1. TITLE OF THIS LESSON..

2. AIM OF THIS LESSON..

3. POINTS TO BE REVIEWED..

4. PROCEDURE OF THIS LESSON..

5. MATERIALS (H)..

==

<u>CONTENT</u>	<u>METHOD</u>

6. PLAN FOR THE ASSIGNMENT OF THE NEXT LESSON ON REVERSE SIDE.

APPENDIX 10

SAINT MARY'S UNIVERSITY

SCHOOL OF EDUCATION

Student Teacher Evaluation Form

Student Teacher.................................Subject(s).......................

Co-operating Teacher.........................Grade (s).......................

      School................................Date.......................

The twelve aspects of teacher effectiveness covered by this evaluation are listed in Column I. Each aspect is explained in Column III. If you believe any important elements have been overlooked in the explanation, please write them in. Column II is for the evaluator's rating of the student teacher in each of the twelve aspects. Use letter grades or percentages as you prefer. The overall rating will be the average of the twelve ratings. (If letter grades have been used they will be considered equivalent to the mid-point of the appropriate percentage range: e.g., a "B" will count as 77%, the mid-point of 70-84). Ratings should be given according to the following scale:

Exceptional	A	85%-100%
Very good	B	70 -84%
Good	C	60 -69%
Fair	D	50 -59%
Unsatisfactory	U	Below 50%

You are encouraged to discuss with the student teacher his strengths and weaknesses as recorded in this evaluation.

___

COMMENTS. Please use this space for comments. Please mention any absences of the student teacher during the practice teaching period.

Please use the reverse side of this page if more space is needed for comments.

Saint Mary's University Student Teacher Evaluation Form

Part I General effectiveness in the role of teacher requires:

Col. I	Col. II	Col. III.
1. Sense of Responsibility		Takes work seriously. Thorough. Courteous and considerate. Punctual. Careful of personal appearance.
2. Purpose		Teaches with a realistic but worthwhile purpose in view. Relates specific purposes to overall purpose. Appreciates the need for unity of purpose in a school, and therefore collaborates with associates. Appreciates function of school among totality of educational agencies.
3. Good Speech		Speaks clearly, audibly, with a suitable range of pitch and tempo. Exemplifies good pronunciation, vocabulary, sentence structure.
4. Self-improvement		Discovers and corrects weaknesses as a teacher. Seeks advice from co-operating teacher. Receptive to criticism.

Saint Mary's University Student Teacher Evaluation Form

Part II Effectiveness in relation to subject matter requires competence in
the teaching of:

Col. I	Col. II	Col. III
5. Factual Knowledge		Has command of facts, definitions, rules, in the subjects he teaches. Requires and helps pupils to achieve sufficiency and accuracy of factual knowledge.
6. Generalization		Arrives at significant generalizations concerning his subject areas and their connections with other areas. Requires and helps pupils to discover and apply such generalizations through use of their own reasoning power. Helps pupils develop valid generalizations with respect to moral conduct.
7. Appreciation		Appreciates and reveals the importance and beauty of what he is teaching. Fosters pupils' attachment to what is good and beautiful. Encourages and facilitates pupils' creativity.
8. Learning		Helps pupils to understand and apply sound principles of learning, in order to improve their study habits and enable them to educate themselves.

Saint Mary's University Student Teacher Evaluation Form

Part III Effectiveness in relation to pupils requires:

Col. I	Col. II	Col. III
9. Leadership		Able to command attention, interest, respect and obedience of the pupils. Handles discipline problems justly and effectively. Excludes no pupil or group of pupils from his concern.
10. Symbolization		Uses symbols--words, examples, analogies, pictures, diagrams--that are readily understood by pupils to help them grasp what they do not yet understand.
11. Pupil Activity		Realizes that learning requires self-activity of the pupil--observing, reading, reasoning, discussing, questioning, writing, diagramming, practicing--and provides opportunities for such activities.
12. Evaluation		Tests achievement in the things taught (i.e., tests validly.) Interprets tests results to pupils and parents. If necessary, follows up testing with remedial instruction or assignments.
Average		(Need not be computed by co-operating teacher)

SAINT MARY'S UNIVERSITY
SCHOOL OF EDUCATION
EVALUATION FORM, 1969-70

Dear Master Teacher:

We hope that our student-teacher will be given every opportunity to observe, to teach, and to participate in many of the other duties of a teacher. We would like you to discuss with the student-teacher his strengths and weaknesses in the light of your experience. In particular:

His knowledge of the subject(s) and his lesson planning
His voice, vocabulary and manner while teaching
Techniques of class management and discipline
Techniques of questioning and explaining
Motivation and interest

We ask you to give the student-teacher an opportunity to overcome his faults before final evaluation. In assessing the student-teacher's performance, you might consider if the student-teacher:

Prepared his lessons well, explained clearly and logically, and held the attention of the pupils throughout

Was aware of what was going on in the classroom as well as aware of pupils' difficulties and needs

Involved the pupils in meaningful activities while fully utilizing his teaching time for the benefit of the pupils

Maintained the kind of order that would be expected of a professional educator

Was one whom pupils respected and liked and with whom they co-operated willingly and worked enthusiastically

Achieved his objectives so that no lesson will have to be reptaught

Student-teacher......................................Subject(s)........................
Master-teacher......................................Grade(s)..........................
School...Absences of Student-teacher..................
Please CIRCLE one of the following letters:
The Student-teacher is:

Is good now as a <u>superior</u> experienced teacher	A+
	A
Is good now as an experienced teacher	A-
	B+
	B
Satisfactory and with experience should develop into a good teacher	C+
	C
	C-
Satisfactory but with definite reservations	D+
	D
	D-
Cannot recommend at present	E+
	E
	E-
Cannot recommend	F+
	F
	F-

Comments by the Master-Teacher on the Student-Teacher or on any part of the practice-teaching period or program...
....
Your comments or constructive criticism with regard to this evaluation form will be very much appreciated..
....
....

APPENDIX 11

QUESTIONNAIRE

<u>Directions</u>: The responses to the questionnaire are to be given in part I of the answer sheet. The number to the left of the response blanks represents the question or statement number. Please blacken the blank beneath the letter which <u>best</u> describes your response to the question or statement.

1. In terms of intellectual stimulation your education courses were:
   a) Generally very stimulating
   b) All moderately stimulating
   c) Stimulating for the most part
   d) Non-stimulating for the most part
   e) Non stimulating

2. In general, the quality of the textbooks used in your education courses was:
   a) very good
   b) adequate
   c) mediocre
   d) poor
   e) very poor

3. You would consider your teacher training instructors to have been good teachers to the following extent:
   a) all good
   b) most good - some poor
   c) all fair
   d) most poor - some good
   e) all poor

4. Your education courses gave you an understanding of students' needs to the following extent:
   a) very great
   b) moderate
   c) very little
   d) none at all
   e) led to misunderstanding

5. In comparison with the quality of your non-education (i.e. non-teacher training) courses, the quality of your education courses was:
   a) much higher
   b) higher
   c) same
   d) lower
   e) much lower

6. The degree of overall satisfaction with your education courses
   was:
   a) very satisfactory
   b) satisfactory
   c) satisfactory with reservations
   d) unsatisfactory
   e) very unsatisfactory

7. In the past year I have read the following number of books
   dealing with the education profession: (i.e. Philosophy of
   Education, Psychology of Education, History of Education, etc.)
   a) 6 or more
   b) 5
   c) 2-4
   d) 1-3
   e) none

8. Since I began teaching full time I have taken the following number
   of courses in Education:
   a) 4 or more
   b) 3
   c) 2
   d) 1
   e) none

9. How strongly developed was your concept of a "good teacher" before
   you began your teacher training?
   a) very strong
   b) considerably strong
   c) moderately strong
   d) very weak
   e) no concept formed

10. To what extent was this concept based on your experience as a high
    school or university student?
    a) very great
    b) moderate
    c) very little
    d) none at all
    e) answered "e" in 9.

11. To what extent was this concept changed after your teacher training?
    a) very great
    b) moderate
    c) very little
    d) none at all
    e) answered "e" in 9.

12. To what extent do you feel an education program should be designed to teach classroom management?
   a) very great
   b) considerable
   c) moderate
   d) very little
   e) none at all

13. There is nothing of essential importance to a teacher beyond knowledge of the subject he or she teaches:
   a) strongly agree
   b) agree
   c) agree in part
   d) disagree
   e) strongly disagree

14. Your teaching experience has shown that teacher training time would be better spent on courses you will be teaching, rather than on professional education courses (i.e. Philosophy of Education, Psychology of Education, History of Education, etc.)
   a) strongly disagree
   b) disagree
   c) agree in part
   d) agree
   e) strongly agree

15. To what extent did your education program teach classroom management?
   a) very great
   b) considerably
   c) moderate
   d) very little
   e) none at all

16. Your teacher training program was designed toward developing you as a professional to the following extent:
   a) very great
   b) considerable
   c) moderate
   d) very little
   e) none at all

17. To what extent did your success in practice teaching relate to success in your teaching career?
   a) very great
   b) considerable
   c) moderate
   d) very little
   e) none at all

18. The supervisor from your teacher training institution assisted
    you in your practice teaching to the following extent:
    a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

19. To what extent did your attitude toward the teaching profession
    change as a result of your practice teaching?
    (a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

20. You were taught in your education courses to be sensitive to the
    individual differences of students to the following extent:
    a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

21. To what extent do your methods of teaching resemble the methods
    taught in your methods courses?
    a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

22. Your teacher training program was effective in developing the
    ability to systematically evaluate your teaching behavior to the
    following extent:
    a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

23. How effective was your teacher training program in providing you
    with a mechanism to evaluate yourself in terms of whether or not
    you should be in the teaching profession?
    a) very effective
    b) considerably effective
    c) moderately effective
    d) relatively ineffective
    e) not effective at all

24. To what extent would you agree that it would be desirable to
    have a teacher training program which involved an internship
    program? (i.e. continuous supervised teaching during a teacher
    training program)
    a) very great
    b) considerable
    c) moderate
    d) very little
    e) none at all

25. Which of the following would be best designed to improve teacher
    education programs?
    a) Take courses - teach for a year - take more courses
    b) Take courses while teaching part time over 2 years
    c) Same program as present one with more practice teaching
    d) Same program as present one
    e) Same program as present one with less practice teaching

26. What were your primary motives for taking a teacher training
    program? (Write answer on separate sheet of plain paper.)

27. What suggestions would you offer for improving teacher training
    programs? (Write answer on separate sheet of plain paper.)

APPENDIX 12

Responses to the Questionnaire

The following tables include the percentage response for each section of the twenty-five questions. The figures do not always add up to one-hundred percent because we did not count any percentage less than one percent. Also, some of the subjects chose to omit certain questions altogether.

In order for the reader to determine the significance of each of these percentages, the total number of respondents for each category of information is given directly above that information.

Below a table is provided as a means for understanding the more unintelligible abbreviated forms in each of the information categories.

ACDA - Acadia University

Dal - Dalhousie University

MSV - Mount St. Vincent University

NSTC - Nova Scotia Teachers College

SFX - Saint Francis Xavier University

SMU - Saint Mary's University

NSSS - Nova Scotia Summer School

2+ - Two or more of the institutions mentioned in the study

Ott - A teacher training institution other than one of those included in the study

NR - Those who would not supply information

TTL - Total

T - Teacher

TVP - Teaching Vice Principal

TP - Teaching Principal

NTP - Non Teaching Principal

GDN - Guidance

SPV - Supervisor

QUESTIONNAIRE RESULTS (PERCENTAGE RESPONSE)

Quest.	26 ECDA	27 DAL	6 MTA	10 MSV	167 NSTC	33 SFX	4 SMU	21 NSSS	45 2+	41 OTT	39 NR	419 TTL
1A	7	0	17	10	9	0	0	24	11	10	5	7
1B	23	3	17	10	19	27	25	10	2	18	23	16
1C	42	33	50	50	50	29	50	39	62	36	53	47
1D	19	63	16	30	16	42	25	24	24	34	5	24
1E	7	0	0	0	4	0	0	0	0	1	5	5
2A	0	3	33	20	8	6	25	24	13	14	6	9
2B	70	30	67	40	53	49	75	42	53	50	52	50
2C	23	44	0	20	34	42	0	24	28	20	41	32
2D	3	19	0	10	4	2	0	10	0	12	0	5
2E	3	3	0	10	1	0	0	0	2	2	0	2
3A	27	3	50	20	16	18	25	20	11	20	18	17
3B	57	40	17	70	70	57	50	57	75	50	61	64
3C	0	7	33	0	5	2	25	9	7	14	11	6
3D	15	48	0	10	6	22	0	14	7	16	8	12
3E	0	0	0	0	0	0	0	0	0	0	0	0
4A	3	0	17	0	6	0	0	10	9	7	6	5
4B	42	17	50	60	55	51	75	61	53	53	50	50
4C	50	67	33	40	35	40	25	20	36	36	33	37
4D	3	19	0	0	3	9	0	4	0	1	6	4
4E	0	3	0	0	1	0	0	4	0	0	0	2
5A	3	0	0	0	4	0	0	4	2	0	6	3
5B	15	3	0	20	33	27	0	20	26	22	29	25
5C	35	3	67	40	39	33	75	53	35	36	43	38
5D	38	59	33	40	19	30	25	14	26	34	18	28
5E	7	33	0	0	4	6	0	8	9	7	4	1
6A	7	0	0	0	7	0	0	14	6	2	6	5
6B	19	7	33	30	27	22	50	28	26	34	23	24
6C	50	40	33	50	54	49	50	28	56	48	59	49
6D	19	48	33	20	10	29	0	28	11	9	7	16
6E	3	3	0	0	1	0	0	0	0	4	1	2

Quest.	ACDA	DAL	MTA	MSV	NSTC	SFX	SMU	NSSS	2+	OTT	NR	TTL
7A	30	40	0	0	6	29	50	10	35	18	5	16
7B	7	0	0	0	4	9	0	4	4	6	4	4
7C	14	26	0	20	16	15	25	33	24	18	10	18
7D	38	19	50	10	39	27	0	33	31	29	27	32
7E	7	15	50	70	35	18	25	20	4	29	52	28
8A	35	30	0	10	31	29	75	48	67	31	43	38
8B	3	3	0	0	12	15	0	3	7	7	11	9
8C	23	7	0	0	13	15	25	20	12	14	11	13
8D	0	3	17	0	8	10	0	20	3	10	5	7
8E	38	55	83	90	34	29	0	9	9	36	30	33
9A	11	11	16	0	19	9	0	10	17	20	13	15
9B	43	30	50	50	30	40	50	33	26	31	23	32
9C	35	51	16	30	30	29	50	47	35	29	35	34
9D	11	3	16	20	10	22	0	10	13	7	15	11
9E	0	3	0	0	8	0	0	0	7	11	13	7
10A	46	40	33	30	30	22	25	42	42	41	27	34
10B	43	44	50	30	41	49	25	42	26	39	33	40
10C	4	7	16	30	15	18	25	10	24	4	31	15
10D	4	4	0	10	4	9	25	5	0	3	2	4
10E	0	4	0	0	6	2	0	0	6	12	7	6
11A	19	7	16	0	16	15	0	20	13	20	13	15
11B	34	19	33	50	35	49	0	42	50	24	41	36
11C	46	59	33	50	35	29	75	29	29	37	26	36
11D	0	7	16	0	6	2	25	9	4	7	8	6
11E	0	5	0	0	6	2	0	0	4	10	10	4
12A	31	37	17	10	39	33	50	24	33	54	36	37
12B	46	59	66	50	46	49	50	57	42	34	41	46
12C	15	4	17	30	13	15	0	19	25	10	23	15
12D	8	0	0	0	2	3	0	0	0	2	0	1
12E	0	0	0	0	0	0	0	0	0	0	0	0

Quest.	ACDA	DAL	MTA	MSV	NSTC	SFX	SMU	NSSS	2+	OTT	NR	TTL
13A	0	4	0	0	1	3	0	0	0	0	0	1
13B	0	0	0	0	1	0	0	5	0	0	0	1
13C	8	0	0	10	2	6	0	5	7	2	10	4
13D	12	18	33	30	28	27	25	43	24	29	23	27
13E	80	78	67	60	68	64	75	47	69	69	67	67
14A	8	4	0	0	6	12	0	9	13	7	8	7
14B	31	19	0	10	13	9	0	19	16	24	13	15
14C	39	52	67	50	50	43	100	43	42	42	43	47
14D	11	18	0	10	19	21	0	10	20	7	23	17
14E	11	7	33	30	12	15	0	19	9	20	13	14
15A	0	0	0	0	2	0	0	0	0	0	0	1
15B	4	0	0	30	13	9	0	29	18	29	10	14
15C	27	0	33	30	32	33	50	19	29	34	23	28
15D	58	71	67	40	47	49	50	48	49	25	44	47
15E	11	29	0	0	5	9	0	4	4	12	23	10
16A	15	0	17	10	10	0	0	14	7	5	5	8
16B	39	4	0	20	25	21	0	19	33	37	13	24
16C	31	59	50	60	44	52	75	43	49	39	62	47
16D	7	33	33	10	20	27	25	19	11	17	18	19
16E	4	4	0	0	1	0	0	0	0	2	0	1
17A	12	11	17	20	16	6	0	9	13	7	13	13
17B	35	41	0	30	28	30	25	19	20	37	20	28
17C	15	26	50	20	25	34	25	14	27	27	31	26
17D	38	18	17	30	29	21	25	24	27	27	28	27
17E	0	0	16	0	2	9	25	5	13	2	5	4
18A	4	7	17	0	7	6	0	5	0	3	0	5
18B	15	0	0	20	22	18	25	19	29	24	18	20
18C	31	15	50	20	27	40	50	19	22	29	28	27
18D	35	52	17	40	36	27	25	24	40	27	31	34
18E	15	22	0	10	7	9	0	9	7	15	20	11

Quest.	ACDA	DAL	MTA	MSV	NSTC	SFX	SMU	NSSS	2+	OTT	NR	TTL
19A	0	0	17	10	8	15	0	5	5	0	0	6
19B	12	15	50	20	24	30	50	29	13	34	28	24
19C	31	18	0	20	13	12	25	14	24	22	16	17
19D	50	52	33	40	46	34	25	19	47	27	38	41
19E	7	11	0	10	9	9	0	9	9	17	15	10
20A	27	11	0	50	23	27	0	19	25	22	8	21
20B	35	26	50	50	32	49	50	29	31	44	43	36
20C	27	33	17	0	24	18	50	48	22	17	25	25
20D	11	26	33	0	17	3	0	4	22	15	18	15
20E	0	4	0	0	4	3	0	0	0	2	3	3
21A	8	0	0	10	2	6	0	0	0	5	0	2
21B	11	11	0	20	30	24	25	29	31	46	10	26
21C	50	44	50	30	34	27	25	52	40	22	59	38
21D	15	41	33	40	32	37	50	19	24	20	21	29
21E	12	4	0	0	2	6	0	0	5	7	5	4
22A	4	0	0	0	5	0	0	5	2	5	0	3
22B	23	7	17	10	20	15	25	29	27	29	21	21
22C	42	41	50	40	42	58	25	52	47	27	41	43
22D	31	37	33	50	29	24	50	9	20	24	33	28
22E	0	15	0	0	4	3	0	5	4	15	0	5
23A	8	0	17	0	8	3	0	5	2	8	5	6
23B	15	4	17	0	18	27	0	14	25	29	10	18
23C	35	11	33	60	33	55	50	49	31	24	36	31
23D	35	52	33	30	30	27	25	24	29	22	28	30
23E	7	33	0	10	11	18	25	14	11	17	16	14
24A	42	63	17	40	28	64	25	19	40	37	15	34
24B	39	26	66	30	33	18	25	43	33	29	38	33
24C	15	4	17	10	18	9	50	9	16	22	18	16
24D	4	7	0	10	16	6	0	29	9	7	21	13
24E	0	0	0	10	5	0	0	0	2	5	5	3

Quest.	ACDA	DAL	MTA	MSV	NSTC	SFX	SMU	NSSS	2+	OTT	NR	TTL
25A	38	30	0	40	29	30	25	38	38	32	28	31
25B	27	37	33	20	35	30	25	29	40	24	41	34
25C	27	33	50	40	28	30	50	9	18	32	21	27
25D	4	0	0	0	7	1	0	19	2	10	5	6
25E	4	0	0	0	0	0	0	0	0	0	0	0

Quest.	12 NOTC	29 TCI	60 TC2	80 TC3	44 TC4	101 TC5	43 TC6	8 TC7	0 TC8	42 NR	419 TTL
1A	8	17	13	10	4	4	13	0	0	7	8
1B	25	34	16	17	16	12	8	0	0	23	16
1C	58	29	46	56	40	42	44	50	0	57	47
1D	0	14	23	15	31	38	35	37	0	7	24
IE	0	0	0	2	6	4	0	12	0	5	2
2A	25	17	7	10	7	6	21	0	0	4	10
2B	58	48	60	53	52	50	37	38	0	50	51
2C	8	28	25	32	39	31	37	50	0	42	32
2D	0	7	7	5	2	8	5	0	0	3	5
2E	0	0	0	0	0	5	0	12	0	0	1
3A	33	21	20	16	14	14	19	12	0	16	17
3B	33	73	73	71	61	57	70	25	0	64	64
3C	25	3	0	5	14	7	2	0	0	10	6
3D	0	3	7	8	11	22	9	63	0	10	11
3E	0	0	0	0	0	0	0	0	0	0	0
4A	0	6	10	7	6	2	4	0	0	7	6
4B	67	56	52	62	45	48	46	0	0	50	53
4C	25	35	33	28	43	44	39	87	0	35	37
4D	0	3	5	2	0	5	8	12	0	7	4
4E	0	0	0	0	4	1	0	0	0	0	0
5A	0	4	5	6	2	0	2	0	0	5	3
5B	25	52	37	31	20	14	14	12	0	31	25
5C	42	34	33	39	39	31	42	38	0	43	36
5D	17	7	20	20	32	42	30	38	0	17	26
5E	8	3	2	4	7	13	9	12	0	2	7
6A	0	14	10	5	6	4	0	0	0	5	5
6B	58	30	28	35	16	15	26	25	0	23	24
6C	33	44	46	53	50	48	59	37	0	62	51
6D	0	10	13	5	25	30	14	25	0	7	16
6E	0	0	0	2	2	3	0	12	0	3	1

Quest.	NOTC	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	NR	TTL
7A	8	4	8	10	16	23	42	38	0	5	16
7B	0	7	0	4	11	6	7	0	0	2	5
7C	33	17	22	20	14	17	23	12	0	12	18
7D	17	48	38	35	34	27	18	25	0	36	30
7E	42	24	32	31	25	27	10	25	0	45	28
8A	33	10	30	28	32	38	70	50	0	48	36
8B	0	21	12	11	7	9	2	12	0	7	9
8C	25	10	23	14	16	11	7	13	0	9	13
8D	25	7	10	6	13	4	2	13	0	5	7
8E	17	38	25	40	32	38	16	12	0	31	33
9A	17	24	13	15	22	14	11	0	0	19	15
9B	17	48	32	37	30	32	35	12	0	21	30
9C	41	18	32	31	36	40	36	37	0	33	33
9D	17	3	8	12	10	11	15	25	0	14	11
9E	8	6	12	3	0	3	3	25	0	12	6
10A	33	30	28	30	34	42	37	50	0	28	34
10B	16	40	38	46	52	37	39	12	0	37	39
10C	25	18	17	20	9	10	11	0	0	23	15
10D	17	3	7	0	3	7	4	0	0	2	4
10E	8	6	10	2	0	4	4	37	0	10	6
11A	25	24	12	17	9	14	13	12	0	17	15
11B	33	34	35	40	52	32	26	12	0	45	36
11C	17	27	38	35	34	43	50	38	0	21	36
11D	8	9	7	5	4	5	3	0	0	7	6
11E	8	3	8	3	0	3	3	38	0	10	5
12A	17	48	33	44	34	36	21	63	0	41	36
12B	67	41	52	36	45	51	49	25	0	43	46
12C	16	11	12	19	16	10	25	12	0	16	15
12D	0	0	2	1	3	2	5	0	0	0	1
12E	0	0	0	0	2	0	0	0	0	0	0

Quest.	NOTC	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	NR	TTL
13A	0	0	0	1	4	1	0	0	0	0	1
13B	8	4	0	1	0	0	0	0	0	0	1
13C	8	0	3	4	7	4	5	0	0	7	4
13D	42	41	34	28	27	16	16	63	0	26	26
13E	42	55	63	66	62	79	79	27	0	67	67
14A	0	3	5	3	9	10	11	25	0	10	7
14B	17	18	12	8	10	25	15	12	0	12	15
14C	52	41	56	53	45	40	51	38	0	43	47
14D	16	20	18	15	18	16	16	0	0	21	17
14E	25	18	8	20	16	9	5	25	0	14	13
15A	0	0	0	3	2	0	0	0	0	0	1
15B	17	24	15	12	21	14	9	0	0	9	14
15C	33	28	31	39	34	23	19	0	0	24	28
15D	42	45	45	42	41	51	60	37	0	48	47
15E	8	3	7	4	2	12	12	63	0	19	10
16A	0	10	5	15	14	4	7	0	0	5	8
16B	33	31	30	27	23	19	26	25	0	14	24
16C	58	45	37	44	43	49	49	50	0	62	47
16D	0	14	25	14	20	26	14	25	0	19	19
16E	0	0	3	0	0	1	2	0	0	0	1
17A	17	14	15	17	18	9	5	12	0	12	12
17B	42	28	25	35	20	25	40	13	0	21	28
17C	25	34	23	18	23	35	12	13	0	34	24
17D	8	24	35	29	20	24	30	62	0	26	27
17E	8	0	2	1	12	4	11	0	0	5	4
18A	0	6	7	5	14	3	2	0	0	0	5
18B	33	28	30	19	16	18	15	0	0	17	20
18C	33	38	22	32	18	26	30	25	0	26	27
18D	25	11	35	35	34	37	40	50	0	38	34
18E	8	17	6	7	12	10	9	25	0	17	10

Quest.	NOTC	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	NR	TTL
19A	8	7	5	6	16	5	0	12	0	0	5
19B	42	21	23	26	20	28	14	0	0	29	24
19C	25	17	12	16	14	15	26	25	0	19	16
19D	25	41	47	41	30	43	44	63	0	36	41
19E	0	14	13	9	16	6	14	0	0	14	10
20A	8	14	20	39	25	21	14	0	0	7	22
20B	58	48	26	30	43	35	30	62	0	41	36
20C	17	21	37	20	20	27	23	25	0	21	24
20D	17	14	8	11	9	15	33	0	0	26	15
20E	0	3	8	0	3	2	0	13	0	4	3
21A	8	0	2	3	4	4	0	0	0	0	4
21B	50	28	30	35	25	23	21	0	0	17	25
21C	25	37	28	38	34	37	46	38	0	57	37
21D	8	34	40	23	23	31	26	50	0	19	28
21E	8	0	0	1	14	3	4	12	0	5	5
22A	8	3	5	9	3	0	0	0	0	0	5
22B	50	28	18	23	20	19	19	0	0	19	20
22C	17	48	49	40	40	40	42	50	0	46	42
22D	17	17	22	26	32	32	35	25	0	33	28
22E	0	4	6	1	4	9	4	25	0	0	5
23A	17	4	7	10	7	3	2	0	0	5	5
23B	25	24	18	21	14	17	19	12	0	12	18
23C	50	41	35	31	27	28	28	0	0	38	31
23D	0	17	33	26	36	35	33	38	0	26	30
23E	0	14	7	12	16	17	16	50	0	17	13
24A	8	11	25	29	36	53	40	100	0	19	34
24B	25	44	33	33	30	27	40	0	0	38	32
24C	42	22	22	17	12	12	9	0	0	17	16
24D	8	23	12	15	22	8	3	0	0	19	12
24E	17	0	8	3	0	0	3	0	0	5	5

Quest.	NOTC	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	NR	TTL
25A	25	31	25	31	27	32	46	38	0	29	31
25B	8	21	37	31	40	36	28	25	0	45	34
25C	33	31	28	29	18	30	21	37	0	19	26
25D	25	17	10	6	5	1	0	0	0	5	5
25E	0	0	0	0	0	0	0	0	0	0	0

Quest	31 0 yrs	28 1 yr	29 2 yrs	39 3-4 yrs	49 5-7 yrs	50 8-10 yrs	31 11-14 yrs	46 15-19 yrs	76 19+	40 NR	419 TTL
1A	9	10	0	2	10	6	16	10	11	7	8
1B	9	25	10	12	10	16	13	13	25	25	16
1C	38	46	34	51	34	46	51	64	44	55	46
1D	35	17	51	25	42	32	16	6	18	7	24
1E	6	0	3	5	2	0	3	4	0	5	5
2A	6	11	3	10	6	8	16	13	12	8	9
2B	55	57	45	46	47	56	45	48	54	52	50
2C	29	21	28	36	41	32	36	30	29	40	32
2D	3	11	14	5	6	2	0	9	5	0	5
2E	7	0	10	3	0	0	3	0	0	0	2
3A	16	18	3	8	17	20	13	18	24	22	17
3B	58	60	52	67	61	62	77	74	67	60	65
3C	7	7	14	3	4	10	3	4	4	10	6
3D	19	15	31	20	18	8	7	4	5	8	12
3E	0	0	0	0	0	0	0	0	0	0	0
4A	3	10	3	2	8	6	3	13	4	5	6
4B	74	60	34	56	38	44	41	48	57	53	50
4C	19	29	51	38	38	40	55	36	35	35	36
4D	0	0	6	0	12	8	0	2	2	7	5
4E	3	0	3	0	2	0	0	0	0	0	1
5A	7	4	0	3	0	0	10	2	4	5	3
5B	16	21	0	33	33	30	13	28	33	28	26
5C	35	36	24	26	27	30	48	46	42	47	36
5D	32	36	55	20	30	32	26	23	17	15	27
5E	10	3	21	15	10	2	3	2	4	3	7
6A	3	7	0	8	2	6	9	9	5	5	5
6B	29	32	10	30	18	28	19	23	28	30	25
6C	41	57	55	38	44	50	45	60	55	55	50
6D	22	4	28	17	33	14	26	6	10	7	16
6E	3	0	6	2	2	0	0	0	0	3	2

Quest	0 yrs	1 yr	2 yrs	3-4 yrs	5-7 yrs	8-10 yrs	11-14 yrs	15-19 yrs	19+	NR	TTL
7A	35	14	10	13	18	8	19	22	17	10	17
7B	6	7	7	5	0	4	3	9	5	2	5
7C	13	14	21	31	14	12	29	6	28	13	18
7D	23	36	41	26	35	34	23	37	34	27	32
7E	23	29	21	25	33	42	26	26	16	48	28
8A	3	11	21	33	33	40	55	52	47	43	36
8B	3	0	3	18	16	10	13	11	7	7	9
8C	10	7	21	18	16	16	6	13	14	10	14
8D	6	11	10	5	4	8	3	2	2	8	7
8E	78	71	45	26	31	24	23	20	19	32	33
9A	13	7	6	17	18	16	13	26	16	15	16
9B	29	39	28	38	33	22	41	28	35	28	31
9C	29	46	62	36	28	36	9	30	35	30	34
9D	19	7	0	5	12	18	29	4	9	15	11
9E	9	0	3	2	8	6	6	10	2	12	6
10A	22	25	31	49	38	30	35	39	34	32	34
10B	38	56	48	43	41	36	29	32	44	28	40
10C	22	15	10	2	10	18	22	18	11	28	15
10D	6	4	6	2	2	8	3	2	5	2	5
10E	9	0	3	0	8	6	9	9	2	10	6
11A	13	10	10	12	28	16	13	9	17	12	14
11B	32	67	34	36	28	42	32	34	28	43	36
11C	32	17	51	41	33	24	35	43	48	28	36
11D	9	4	0	5	4	10	9	9	2	7	5
11E	9	0	3	2	6	6	9	4	2	10	5
12A	55	36	28	31	33	42	39	35	36	35	36
12B	35	50	52	43	47	42	52	46	47	48	46
12C	7	14	17	18	16	14	9	17	16	17	15
12D	3	0	3	8	2	0	0	2	1	0	2
12E	0	0	0	0	2	0	0	0	0	0	0

Quest	0 yrs	1 yr	2 yrs	3-4 yrs	5-7 yrs	8-10 yrs	11-14 yrs	15-19 yrs	19+	NR	TTL
13A	0	0	3	0	4	0	0	0	0	2	1
13B	3	0	3	0	0	2	0	0	0	0	1
13C	3	4	4	13	2	0	7	2	4	8	4
13D	39	32	21	18	20	32	19	24	30	25	26
13E	55	64	69	69	74	66	74	74	66	65	68
14A	6	7	0	8	4	10	9	13	5	10	7
14B	22	7	14	10	20	10	19	10	22	10	15
14C	32	64	34	49	47	44	51	48	50	45	46
14D	16	10	24	23	14	26	9	13	14	17	17
14E	22	10	28	10	12	10	9	15	7	17	12
15A	0	3	3	0	0	2	0	0	0	0	1
15B	19	18	10	10	22	14	19	15	7	13	14
15C	23	47	21	39	23	28	19	35	26	25	28
15D	42	32	49	46	47	44	52	46	59	42	47
15E	16	0	17	5	8	10	10	4	8	20	10
16A	10	14	14	13	8	2	13	7	4	5	8
16B	32	36	10	25	25	28	29	28	18	15	24
16C	48	46	42	44	35	48	39	39	58	63	47
16D	10	4	31	13	30	16	19	26	20	17	19
16E	0	0	3	0	2	4	0	0	0	0	1
17A	7	14	17	26	8	22	16	9	5	12	13
17B	32	40	28	26	41	22	26	28	20	28	28
17C	32	21	31	20	20	20	32	28	26	28	25
17D	26	21	10	20	27	30	23	35	38	22	27
17E	3	0	7	0	4	6	3	0	10	8	5
18A	3	7	14	0	6	14	9	0	0	0	5
18B	13	32	10	12	18	14	38	23	22	17	20
18C	29	17	31	33	22	28	26	28	28	28	26
18D	45	36	24	41	22	34	22	41	36	35	34
18E	9	7	10	5	28	10	3	6	9	15	10

Quest	0 yrs	1 yr	2 yrs	3-4 yrs	5-7 yrs	8-10 yrs	11-14 yrs	15-19 yrs	19+	NR	TTL
19A	10	4	0	3	10	6	22	0	5	0	6
19B	29	36	34	28	20	18	23	28	13	30	24
19C	19	21	21	15	19	18	10	15	18	10	17
19D	35	29	41	41	31	44	42	42	50	45	41
19E	7	7	0	5	20	14	3	15	11	13	10
20A	35	46	18	17	27	16	19	22	16	10	20
20B	51	39	37	46	32	28	32	23	34	43	36
20C	9	7	31	36	17	34	32	30	25	17	24
20D	0	7	14	0	22	16	13	22	19	25	15
20E	3	0	0	0	2	6	3	2	4	3	5
21A	3	10	0	2	4	0	0	2	1	3	4
21B	41	36	28	25	24	26	19	26	26	15	25
21C	35	39	30	46	33	36	41	43	28	55	37
21D	13	15	28	20	33	34	32	28	42	17	28
21E	6	0	14	2	6	2	6	0	2	5	5
22A	13	10	3	0	0	4	0	0	4	0	5
22B	19	32	3	27	27	18	16	22	19	23	21
22C	35	50	45	46	41	42	48	43	39	41	42
22D	22	7	45	17	28	26	32	30	31	35	27
22E	9	0	3	5	4	10	3	4	5	0	5
23A	9	4	7	8	2	10	6	7	3	5	6
23B	23	25	7	20	14	20	23	17	18	12	18
23C	32	46	28	26	27	34	26	24	37	35	31
23D	23	21	41	33	37	30	35	30	26	25	30
23E	13	4	17	10	20	6	10	22	15	20	14
24A	38	21	48	41	40	34	35	28	35	20	34
24B	19	25	31	23	33	32	29	41	38	40	32
24C	16	21	6	23	17	18	19	18	10	15	16
24D	26	25	10	12	6	12	9	10	9	17	12
24E	0	7	3	0	4	2	6	2	4	5	5

Quest	0 yrs	1 yr	2 yrs	3-4 yrs	5-7 yrs	8-10 yrs	11-14 yrs	15-19 yrs	19+	NR	TTL
25A	36	17	21	25	28	30	51	32	38	23	31
25B	13	25	59	27	34	28	16	36	39	45	33
25C	35	39	18	36	27	38	22	26	12	25	25
25D	9	17	0	5	8	2	6	4	5	5	6
25E	0	0	0	0	0	0	0	0	0	0	0

Quest	319 T	8 TVP	18 TP	12 NTP	10 GDN	4 SPV	37 NR	408 TTL
1A	9	0	17	8	20	25	5	8
1B	16	37	5	0	20	25	24	17
1C	44	37	61	58	30	25	56	46
1D	26	25	17	33	30	25	8	24
1E	2	0	0	0	0	0	5	5
2A	10	0	5	17	10	25	5	9
2B	50	62	44	58	50	50	48	50
2C	30	38	38	25	40	25	45	32
2D	6	0	5	0	0	0	0	5
2E	1	0	5	0	0	0	0	2
3A	15	25	17	25	20	75	18	17
3B	64	62	72	58	70	25	59	64
3C	5	0	11	8	10	0	10	6
3D	13	12	0	8	0	0	10	11
3E	0	0	0	0	0	0	0	0
4A	6	0	11	8	10	0	2	6
4B	50	50	50	33	50	50	26	50
4C	37	50	33	50	40	50	32	37
4D	4	0	5	8	0	0	8	5
4E	1	0	0	0	0	0	0	1
5A	2	0	11	8	10	0	5	5
5B	26	50	22	8	30	0	29	25
5C	36	38	27	25	50	75	43	36
5D	25	12	33	50	10	25	18	26
5E	8	0	0	8	0	0	2	6
6A	5	0	5	8	0	0	5	5
6B	27	0	22	8	10	75	24	25
6C	46	100	61	67	70	25	56	50
6D	17	0	11	17	20	0	10	16
6E	1	0	0	0	0	0	2	2

Quest	T	TVP	TP	NTP	GDN	SPV	NR	TTL
7A	14	0	33	66	50	25	5	16
7B	5	0	0	0	20	25	0	5
7C	17	50	22	17	20	50	10	18
7D	33	25	33	17	10	0	32	32
7E	28	25	11	0	0	0	51	28
8A	30	38	50	100	90	50	45	36
8B	10	0	17	0	0	0	5	8
8C	14	12	11	0	0	50	10	13
8D	7	25	5	0	10	0	5	7
8E	36	25	17	0	0	0	32	32
9A	15	12	0	8	20	0	16	16
9B	32	25	38	25	10	75	21	31
9C	34	25	44	41	30	25	29	34
9D	10	12	17	25	30	0	18	11
9E	6	12	0	0	10	0	13	6
10A	33	25	33	41	40	50	29	34
10B	41	25	33	41	20	50	32	40
10C	14	25	22	17	20	0	21	14
10D	4	12	11	0	0	0	2	5
10E	5	12	0	0	10	0	13	6
11A	15	12	22	17	10	0	8	14
11B	36	38	38	41	40	25	45	36
11C	36	38	33	41	40	75	24	36
11D	6	0	5	0	0	0	8	6
11E	5	12	0	0	0	0	13	5
12A	37	62	27	17	20	75	37	36
12B	46	38	50	66	40	25	45	46
12C	14	0	11	17	40	0	16	13
12D	1	0	5	0	0	0	0	2
12E	0	0	5	0	0	0	0	1

Quest	T	TVP	TP	NTP	GDN	SPV	NR	TTL
13A	1	0	5	0	0	0	0	1
13B	1	0	0	0	0	0	0	1
13C	3	0	0	0	10	25	8	5
13D	29	0	27	25	0	0	24	25
13E	64	100	67	75	90	75	67	68
14A	6	12	5	25	20	0	10	7
14B	15	12	17	0	40	0	10	14
14C	46	50	61	58	10	75	43	47
14D	17	0	11	8	20	25	21	17
14E	13	25	5	8	10	0	13	12
15A	1	0	0	0	0	0	0	1
15B	14	0	11	25	10	25	8	13
15C	28	50	38	0	50	0	24	28
15D	46	38	50	75	30	75	45	47
15E	9	12	0	0	10	0	21	9
16A	9	0	0	8	10	0	2	8
16B	26	0	33	25	20	25	10	24
16C	43	75	55	58	40	75	64	47
16D	20	25	11	8	20	0	21	19
16E	1	0	0	0	0	0	0	1
17A	13	0	17	25	0	25	10	12
17B	29	12	17	17	50	50	18	28
17C	25	12	27	25	0	0	32	25
17D	26	38	22	25	50	25	27	26
17E	2	38	17	8	0	0	8	5
18A	4	12	11	17	10	0	0	5
18B	20	0	17	8	40	0	18	20
18C	30	12	11	25	10	50	24	26
18D	30	75	50	50	50	50	37	34
18E	11	0	11	0	0	0	13	10

Quest	T	TVP	TP	NTP	GDN	SPV	NR	TTL
19A	6	12	11	8	0	0	2	5
19B	25	25	22	17	20	0	27	24
19C	17	12	22	8	10	50	13	16
19D	38	38	38	67	70	50	40	41
19E	11	12	5	0	0	0	13	10
20A	23	12	5	17	30	0	5	20
20B	35	12	38	41	30	50	45	36
20C	23	50	44	17	20	0	21	24
20D	13	12	11	25	20	50	21	15
20E	2	13	0	0	0	0	2	5
21A	2	0	5	0	0	0	0	4
21B	28	12	22	33	20	25	10	25
21C	35	12	27	33	50	75	59	37
21D	28	62	44	33	20	0	18	28
21E	4	12	0	0	0	0	5	5
22A	4	0	0	0	0	0	0	5
22B	21	12	27	0	10	50	18	21
22C	41	25	44	83	50	25	45	41
22D	27	50	27	17	30	25	32	28
22E	4	12	0	0	10	0	0	5
23A	6	0	5	0	10	0	2	5
23B	17	25	17	25	20	50	10	17
23C	32	38	33	25	30	0	35	31
23D	29	12	33	41	20	50	32	30
23E	13	25	11	8	20	0	16	13
24A	34	50	44	58	40	25	16	34
24B	31	50	22	25	50	50	40	32
24C	15	0	22	0	10	25	18	16
24D	14	0	5	8	0	0	16	12
24E	3	0	5	0	0	0	5	5

Quest	T	TVP	TP	NTP	GDN	SPV	NR	TTL
25A	28	62	27	50	60	25	29	31
25B	32	38	33	33	20	50	37	34
25C	28	0	27	8	20	25	24	26
25D	7	0	5	0	0	0	5	5
25E	0	0	0	0	0	0	0	0

Quest	Elem	JRH	JR-SRH	SRH	NR	TTL
7A	12	20	19	20	9	16
7B	6	3	6	3	0	5
7C	21	14	15	23	12	18
7D	36	24	34	33	33	31
7E	25	39	26	21	46	28
8A	30	25	41	43	51	36
8B	11	11	9	8	5	8
8C	16	8	21	8	9	13
8D	6	20	4	0	5	7
8E	36	34	25	39	30	32
9A	14	22	17	13	16	16
9B	37	27	25	34	26	31
9C	32	31	43	36	32	34
9D	13	9	11	10	14	11
9E	4	9	4	6	12	6
10A	26	31	49	43	35	34
10B	47	38	34	38	33	40
10C	17	17	11	5	21	14
10D	4	5	2	6	2	5
10E	4	9	4	8	9	6
11A	14	22	18	10	14	14
11B	43	19	40	33	44	36
11C	36	46	30	36	23	36
11D	4	3	8	10	9	6
11E	2	9	4	8	9	5
12A	39	53	32	20	37	36
12B	44	39	43	61	44	46
12C	14	8	21	18	19	14
12D	2	0	4	0	0	2
12E	6	0	0	1	0	1

Quest	Elem	JRH	JR-SRH	SRH	NR	TTL
13A	1	1	0	3	0	1
13B	1	2	2	0	0	1
13C	3	8	4	3	7	5
13D	29	20	13	38	26	25
13E	66	69	81	56	67	67
14A	6	6	6	10	12	7
14B	13	16	23	16	12	14
14C	55	39	35	44	40	46
14D	15	17	15	21	24	17
14E	10	22	21	8	12	12
15A	0	2	4	0	0	1
15B	16	8	21	10	9	13
15C	34	31	24	20	21	28
15D	44	48	43	56	51	47
15E	5	11	8	14	19	9
16A	8	5	15	8	5	8
16B	32	20	26	12	18	24
16C	44	50	40	48	56	47
16D	15	22	19	28	21	19
16E	1	2	0	3	0	1
17A	16	5	13	10	16	12
17B	30	27	40	16	16	28
17C	25	27	19	33	33	25
17D	25	39	23	26	28	26
17E	2	1	5	10	5	5
18A	4	5	11	2	2	5
18B	23	20	23	12	16	20
18C	31	20	28	31	23	26
18D	33	41	30	28	37	34
18E	6	9	8	21	19	10

Quest	Elem	JRH	JR-SRH	SRH	NR	TTL
19A	6	6	4	7	0	5
19B	25	25	32	18	30	24
19C	16	11	15	25	14	16
19D	43	38	40	34	40	41
19E	8	19	9	11	14	10
20A	29	16	20	14	7	21
20B	36	34	38	33	40	36
20C	21	27	25	38	23	24
20D	12	17	15	13	26	14
20E	2	6	2	2	2	5
21A	2	3	2	5	0	4
21B	36	12	32	21	12	25
21C	30	39	38	38	57	36
21D	31	40	20	25	23	28
21E	1	5	8	8	5	5
22A	4	6	4	0	0	5
22B	25	17	15	21	19	20
22C	45	32	48	36	44	42
22D	23	31	25	36	33	28
22E	1	12	8	5	2	5
23A	6	7	4	6	5	5
23B	24	11	19	8	14	17
23C	34	30	32	30	35	31
23D	28	30	30	33	30	30
23E	8	22	15	20	14	13
24A	32	30	47	44	21	35
24B	31	39	32	26	40	33
24C	18	14	6	16	16	14
24D	14	16	9	10	16	12
24E	4	1	4	3	5	5

Quest	Elem	JRH	JR-SRH	SRH	NR	TTL
25A	24	51	34	31	28	31
25B	37	20	34	33	40	34
25C	29	20	25	25	26	26
25D	8	6	6	3	5	5
25E	0	0	0	0	0	0

Quest	120 Male	254 Female	45 NR	TTL
1A	9	8	8	8
1B	10	18	26	16
1C	44	48	48	47
1D	31	23	11	24
1E	4	1	4	5
2A	10	9	8	9
2B	47	52	51	50
2C	36	29	40	32
2D	4	6	0	5
2E	1	1	0	2
3A	19	15	17	17
3B	55	68	67	64
3C	7	4	11	6
3D	17	11	4	11
3E	0	0	0	0
4A	5	6	4	6
4B	46	52	57	50
4C	40	38	31	37
4D	5	3	6	5
4E	1	1	0	1
5A	1	3	4	5
5B	18	27	40	25
5C	40	34	40	36
5D	29	27	13	26
5E	9	6	2	6
6A	3	6	6	5
6B	20	27	24	25
6C	52	50	53	50
6D	20	14	13	16
6E	1	1	2	2

Quest	Male	Female	MR	TTL
7A	29	11	8	16
7B	6	4	0	5
7C	18	18	17	18
7D	28	35	24	31
7E	17	30	48	28
8A	46	31	44	36
8B	8	10	4	8
8C	11	14	15	13
8D	6	7	6	7
8E	28	36	28	32
9A	11	17	17	14
9B	31	31	33	32
9C	40	32	26	34
9D	11	11	11	11
9E	5	5	11	6
10A	42	29	40	34
10B	35	43	28	40
10C	10	16	20	14
10D	5	3	2	5
10E	5	5	8	5
11A	17	14	11	14
11B	35	36	40	36
11C	35	37	33	36
11D	4	6	6	6
11E	5	4	8	5
12A	33	38	35	36
12B	43	47	46	46
12C	19	12	15	14
12D	2	1	2	2
12E	1	0	0	1

Quest	Male	Female	NR	TTL
13A	1	1	0	1
13B	1	1	0	1
13C	6	2	8	5
13D	20	29	24	25
13E	70	66	67	67
14A	10	5	11	7
14B	15	15	13	15
14C	40	50	48	47
14D	19	15	17	17
14E	15	13	8	13
15A	12	1	0	1
15B	15	13	13	14
15C	30	27	24	27
15D	46	48	46	47
15E	8	8	15	9
16A	6	8	4	8
16B	21	26	20	24
16C	50	43	60	46
16D	18	20	15	19
16E	1	1	0	1
17A	11	12	15	12
17B	30	28	15	27
17C	20	27	31	25
17D	28	27	31	26
17E	7	3	4	5
18A	5	5	0	5
18B	15	22	22	20
18C	29	27	24	26
18D	35	33	37	34
18E	12	8	13	10

Quest	Male	Female	NR	TTL
19A	8	5	0	5
19B	29	21	24	24
19C	19	16	13	16
19D	33	43	44	41
19E	6	11	15	10
20A	20	23	11	21
20B	35	35	42	36
20C	28	23	26	24
20D	15	15	15	14
20E	1	3	2	5
21A	2	2	2	4
21B	20	31	11	25
21C	44	32	51	37
21D	24	30	28	28
21E	6	2	4	5
22A	3	3	0	5
22B	20	20	24	20
22C	44	42	42	42
22D	27	27	31	28
22E	4	5	0	5
23A	4	7	2	5
23B	24	14	20	17
23C	27	34	33	31
23D	29	31	26	30
23E	15	12	15	13
24A	45	31	24	34
24B	30	32	42	32
24C	12	18	11	16
24D	8	14	15	12
24E	2	3	4	5

Quest	Male	Female	MR	TTL
25A	38	28	28	31
25B	29	34	42	34
25C	23	29	22	26
25D	5	6	4	5
25E	0	0	0	0

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