

THE UNIVERSITY OF MANITOBA

A STUDY OF THE ATTITUDES OF
VOCATIONAL AND ACADEMIC TEACHERS
TOWARDS STUDENTS

by

WILLIAM WELSH

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ABSTRACT

The purpose of this study was to determine whether the attitudes of vocational teachers towards their students differed from the attitudes of academic teachers towards their students. A further purpose was to determine whether a teacher's attitude towards students was systematically related to years of teaching experience.

The Minnesota Teacher Attitude Inventory was the main instrument used in the investigation. This instrument plus teacher interviews and observations were used to determine a teacher's position on a continuum, the extremes of which were authoritarian and democratic. A random sample of seventy per cent of the vocational and academic teachers in four Winnipeg schools was surveyed and the difference between the means of the sets of scores was computed and tested for significance at the five per cent level of confidence by the use of a two-tailed "t" test.

A significant difference was found to exist between the attitudes of vocational teachers towards students and the attitudes of academic teachers towards students. In addition, it was

determined that a teacher's attitude does not appear to undergo any significant change after several years in the teaching profession.

Three vocational and three academic teachers volunteered to identify their MTAI returns and to allow regular classroom observation in order to generate qualitative information to support the information obtained by the use of the MTAI.

The data generated by the classroom observation was supportive of the data generated by the MTAI, the teachers under observation generally exhibiting authoritarian-democratic behaviour approximating the level indicated by their MTAI scores.

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CHAPTER 1

STATEMENT OF THE PROBLEM

Educators have always been concerned with the question of a teacher's effectiveness in the classroom. While a teacher's effectiveness is determined by many factors, many of them human characteristics, the teacher's attitude towards his students is one factor found by Burstall¹ as being of major importance in influencing effective student learning.

The influence of teacher attitudes and expectations upon the performance of school children has been discussed in several recent studies. Among the most interesting of these has been that of Pidgeon². He extracted from a number of studies some evidence supporting the hypothesis that a teacher's attitudes influence the behaviour and ability of her pupils. Barker Lunn³ too has suggested that the observed decline in reading performance of children lower social origin relative to higher social class children might, in some measure, be due to the teacher's lower expectation of them.

¹C. Burstall, "French in the Primary School: Some Early Findings". Journal of Curriculum Studies. 1970, 2.1.

²D.A. Pidgeon, "Expectations and Pupil Performance" National Foundation for Educational Research. Slough, England 1970.

³J.C. Barker Lunn, "Streaming in the Primary School". National Foundation for Educational Research. Slough England 1970.

1 THE PROBLEM

Statement of the Problem

The purpose of this study was to determine if there is a significant difference between the attitude of vocational teachers towards students and the attitude of academic teachers towards students.

Teacher attitudes, in this study, are those attitudes which deal with a teacher's interpersonal relationships with students. These attitudes influence the expectations the teacher will have for his pupils and they are measured by the Minnesota Teacher Attitude Inventory (MTAI).

In addition to examining the general relationship in attitudes between vocational and academic teachers, this study attempted to discover whether differences in attitudes are systematically related to teaching experience as the possibility exists that the attitudes of a vocational teacher may change after a few years in the teaching profession.

This change might be brought about by a number of factors, some of which are:

1. Change in general goal from industrial production to teaching.
2. Change in work environment from an industrial setting to an educational setting.

3. Change of colleagues from industrial to professional.
4. Change in educational standing. The tradesman will now be required to obtain further education in the area of teaching. This would include a course in educational psychology.

As most vocational teachers spend five years learning their trade, a similar length of time was chosen, in this study, as a reasonable period over which one might expect beginning vocational teachers to acquire a change of attitude.

Specifically, this study attempted to answer the following questions:

1. Is there a difference between the attitudes of vocational and academic teachers towards students?
2. Is there a difference in the attitudes of vocational teachers with less than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience, towards students?
3. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of academic teachers with more than five years teaching experience, towards students?
4. Is there a difference in the attitudes of academic teachers with less than five years teaching experience

and the attitudes of vocational teachers with less than five years teaching experience, towards students?

5. Is there a difference in attitudes of academic teachers with more than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience, towards students?

Figure 1 shows the above questions schematically applied to the groupings,

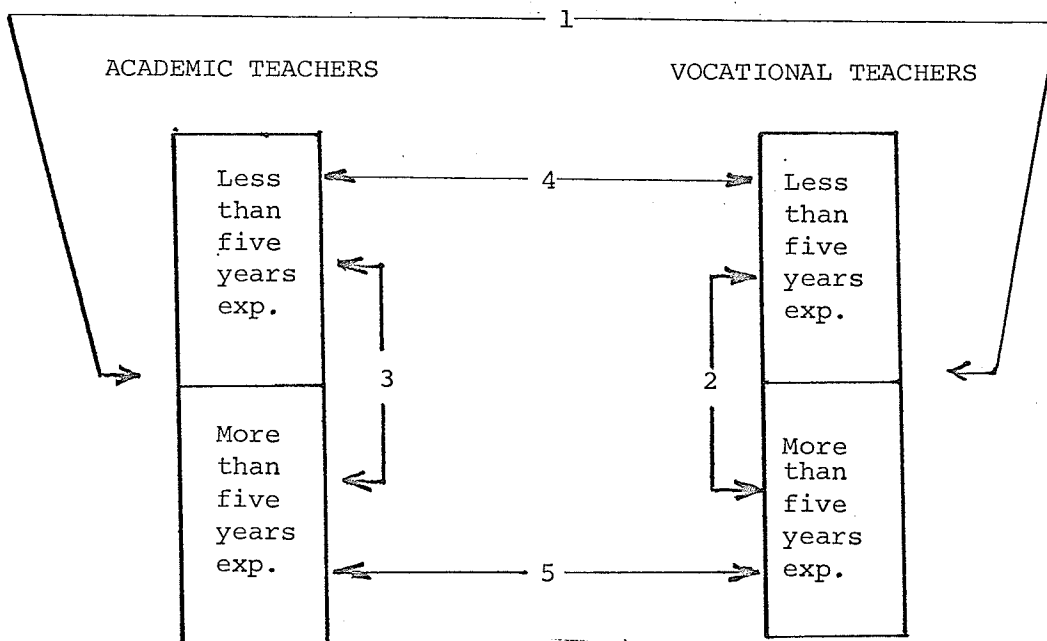


Fig. 1

SCHEMATIC DIAGRAM SHOWING THE GROUPS THAT WILL BE COMPARED

II SIGNIFICANCE OF THE STUDY

This study has theoretical and practical significance.

Its theoretical significance derives from the fact that research indicates that a definite relationship exists between a teacher's attitude towards his students and the classroom performance of these students. Generally, it is accepted that greater educational gains are experienced by students in classrooms which are democratic rather than authoritarian.

Attitude studies have been carried out to differentiate personal characteristics between various professional groups and tests have been developed to measure personality traits such as authoritarian or democratic attitudes of teachers. Most studies have focused upon the teachers of elementary and secondary schools and a noticeable lack of research exists concerning the attitudes of educators in vocational areas.

As the literature points out the lack of research in the area of vocational education, this study will help fill a gap in that research. Furthermore, studies in this area in Manitoba appear to be non-existent.

The practical significance of this study is due to the fact that prior to 1971 only two schools in Manitoba offered a wide range of vocational courses; sixty-nine teachers being employed to teach vocational courses in the province of Manitoba during the 1969-70 school year.

Since 1971 however, with the opening of seven regional comprehensive schools in Manitoba the number of teachers employed in vocational education has risen to approximately 220 during the 1975-76 school year.

In the span of five years the number of vocational teachers in Manitoba has increased more than three times from the number employed in 1970. This fact alone should prompt educators to seek to increase the amount of knowledge available in the area of vocational education.

III DESIGN OF THE STUDY

Many studies have used the MTAI as their only instrument for gathering data and while this has been proven effective in the past, this study incorporated the use of two additional data gathering devices to supplement the quantitative results generated by the MTAI. The additional data was obtained by classroom observation and teacher interviews.

1. An attitude survey was administered to a randomly chosen sample of 70% of the academic teachers and 70% of the vocational teachers in four secondary schools in the city of Winnipeg which offer a wide range of both academic and vocational courses. These schools were the Kildonan-East Regional Secondary School, the Sturgeon Creek Regional Secondary School, the Winnipeg Technical Vocational School, and the R.B. Russell Vocational School. The total teacher population of these schools is approximately 240

teachers. A total of 155 completed surveys were returned; seventy-nine academic and seventy-six vocational.

Teachers were asked to identify their teaching area and years of teaching experience on their returns.

The instrumentation was the Minnesota Teacher Attitude Inventory (MTAI) which has proved to be a reliable indicator to teacher attitudes towards students.⁴ The MTAI is designed to measure those attitudes of a teacher which predict how well the teacher will get along with students in interpersonal relations.

A high score on the MTAI indicates a position on the democratic end of the attitude continuum and a low score indicates a position on the authoritarian end of the attitude continuum.

When the returns were scored a t value for the difference between the means of the sets of scores was computed and tested for significance at the 5% level by the use of a two-tailed test.

2. Classroom Observation

The use of the MTAI provided a quantitative measure of the teachers' attitudes towards their students. To complement the data generated by the MTAI, qualitative information was sought by studying the classroom behaviour of six selected teachers over a period of two months.

Three vocational and three academic teachers were selected on the basis of the number of years of teaching experience of each teacher. Two teachers had two years teaching experience, two had

⁴H.L. Stein and J.A. Hardy. "A Validation Study of the Minnesota Teacher Attitude Inventory in Manitoba". Journal of Educational Research, 1957, 50, 321 - 338.

five years teaching experience, and two had ten or more years teaching experience in their subject field. It was hoped that, by varying the years of teaching experience of the teachers in the observation group, it might be possible to identify approximately when any change in attitude might take place. Any distinct variation in attitudes between the members of the group might be attributed to differences in years of teaching experience.

The teachers were visited for two periods per week for a period of two months. The observer assessed, on the basis of the teacher-student interaction in the classroom, the authoritarian-democratic climate existing in the classroom. In an effort to assist the observer in making this subjective judgment a list of conditions and events identified as occurring in either authoritarian or democratic classrooms was compiled. This list was structured parallel to the main factors measured by the MTAI. (See Appendix A). The six teachers under observation were asked to complete the MTAI survey and identify their returns.

3. Teacher Survey.

The three vocational and three academic teachers selected as the observation group were asked to complete a personal inventory (See Appendix B) in an attempt to discover how each teacher saw himself on the authoritarian-democratic continuum.

In the case of the six teachers under observation a comparison was made of the position of each teacher on the continuum as determined by;

1. The MTAI
2. Classroom observation and

3. Self placement

IV ASSUMPTION

It is assumed that a teacher's attitude towards students lies somewhere on a continuum, the extremes of which are democratic and authoritarian.

V DELIMITATIONS OF THE STUDY

For the purpose of this study the following delimitations were made:

1. The schools from which the subjects were selected was limited to the metropolitan area of greater Winnipeg. These schools have enrolments exceeding 800 students and are generally classified, in Manitoba, as large schools.
2. Some academic teachers may have had industrial experience and exhibit attitudes at variance with their group.
3. While a teacher's effectiveness is a product of many variables, this study will consider only the teacher's attitude.
4. It can be argued that classroom conditions with an observer present may be different from conditions in the same classroom without an observer.

VI LIMITATIONS OF THE STUDY

This study was limited to a survey of the teacher population of the four city schools mentioned for reasons of economy and expediency and while there seems to be no reason to

suggest that the sample is not representative of the teacher population of Manitoba it must be borne in mind that the sample does consist of only metropolitan teachers. The results therefore may be questioned for generalization to rural areas.

No account has been taken of variance in vocational teachers with regard to area of specialty. i.e. there may well be a difference in attitudes of teachers of high theory oriented courses such as electronics and teachers of low theory oriented courses such as autobody repair.

The validity and reliability of the study will be related to the validity and reliability of the MTAI. In addition, one must always take into account the human weakness of attempting to fake responses to the survey. The MTAI has some built in safeguards against faking responses but this is unlikely to be fool-proof.

While the selection of the schools from which the sample was drawn was deliberate, the sample was randomly selected.

VII DEFINITION OF TERMS

Vocational Teacher: a teacher who holds a vocational industrial specialist certificate issued by the Department of Education in the Province of Manitoba and normally teaches in a workshop environment.

Academic Teacher: a teacher who holds a professional teaching certificate issued by the Department of Education in the Province of Manitoba, does not hold a vocational industrial

specialist certificate, and normally teaches in a classroom environment.

All teachers in this study taught at the secondary level.

Vocational Courses: Specialist courses taught by vocational teachers. e.g. welding, autobody repair, carpentry etc.

Attitude: Theoretical definition by Allen⁵.

An arrangement of mental processes, a mental 'set', an internal disposition, or the way certain mental processes are organized in a person to make him act in a certain way.

Operational Definition of Attitude: In this study attitude will be that variable which is measured by the MTAI. A teacher's attitude will lie on a continuum, the extremes of which will be termed authoritarian and democratic.

VIII SUMMARY

This chapter has shown that there is reason to believe that vocational teachers may have different attitudes towards students than do academic teachers.

As teacher attitudes are important for effective learning in the classroom, and as the number of vocational teachers in Manitoba has risen to three times the number employed in this province in 1970, this study becomes significant.

This chapter details the three methods of data collection in this study; The MTAI, classroom observation, and teacher interviews.

⁵E.A. Allen, "Attitudes of Children and Adolescents in School." Journal of Educational Research. 1960. p. 65.

IX ORGANIZATION OF THE STUDY

Chapter II presents a review of the relevant literature.

The review indicates that a teacher's attitudes towards students is accepted by many writers as being of major importance in influencing student learning. The literature shows that little research has been done in the area of vocational education and that this deficiency has been noted by a number of researchers.

Chapter III describes the sources of data, the instrumentation and the classroom observation methods of data collection. The presentation and the analysis of the data is presented in chapter IV. The final chapter summarizes the major findings of the study, draws some conclusions and presents certain recommendations resulting from this study.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to survey the literature to establish that a teacher's attitude towards his students is one important factor which affects the teaching-learning process in the classroom. In addition, the survey of the literature indicates that it is possible to identify a teacher's attitude as positive or negative, directive or non-directive, authoritarian or democratic and that it is possible to effect change in that attitude.

I VOCABULARY

In this study, the words authoritarian and democratic are used to denote opposite ends of the continuum on which a teacher's attitudes towards his pupils are hypothesized to fall. A review of the literature reveals that other words are used to denote the extremes of the same continuum. For example, Flanders⁶ has used several vocabularies to describe the continuum but the terms "direct" and "indirect" predominate. Thus,

Direct Influence consists of stating the teacher's own opinion or ideas, directing the pupil's action, criticizing his behaviour, or justifying the teacher's authority or use of that authority.

Indirect Influence consists of soliciting the opinions or ideas of the pupils, applying or enlarging

⁶N.A. Flanders, "Teacher Influence in the Classroom", in E.J. Amidon and J.B. Hough, (EDS.), Interaction analysis: Theory, Research and Application. (Reading, Mass.: Addison-Wesley) in Michael J. Dunkin and Bruce J. Biddle, The Study of Teaching, (New York. Holt, Rinehart and Winston, Inc.) 1974. p. 101.

On those opinions or ideas, praising or encouraging the participation of pupils, or clarifying and accepting their feelings. (p. 109).

On the one hand, one notices that emotive, value-laden terms like "autocracy" and "democracy" have been replaced. On the other, however, these definitions do not seem much different from those employed in the earlier research, and it would appear that the confusion between warmth and directiveness continues. The continuum seems the same but the names have changed. (p. 101).

After a review of the research on teacher attitude Dunkin and Biddle⁷ go on to say,

By now we have accumulated quite a vocabulary of terms that appear to have been used for the same hypothetical dimension of teaching. Although different words were used, the underlying notion involved in classifying teacher behaviour as either autocratic or democratic (Lewin-Lippitt-White), dominative or integrative (Anderson), and teacher-centered or learner-centered (Withall) seems to be the same .. Moreover, in each case the dimension thus designated seems to elide the concepts of warmth and directiveness, assuming that teachers who are cold are dominative and vice versa.

II. THE TEACHING LEARNING PROCESS

The teaching learning process involves a teacher-student interaction. The nature of this interaction has changed since the earlier part of this century when teaching was generally teacher centered. As Dunkin and Biddle⁸ indicate:

⁷Michael J. Dunkin and Bruce J. Biddle, (EDS.), The Study of Teaching (New York. Holt, Rinehart and Winston, Inc.) 1974. p. 101.

⁸Ibid p. 60.

On the one hand, many early classrooms were reputed to be harsh, punitive, cold environments in which there was no place for laughter and the rod was not spared. On the other, many classrooms were also teacher-centered autocracies in which pupils could only respond to teacher directions and often only in unison. Thus two things were simultaneously wrong - classrooms had a cold climate and were automatically controlled - and the task of the progressive educator was to rectify both of these conditions in present and future classrooms.

In the same vein, Dunkin and Biddle⁹ go on to say,

Traditional classroom teaching is assumed to be weak because it is cold and authoritarian. On the one hand, teachers are presumed to conduct classrooms in a manner that lacks warmth and responsiveness. On the other, traditional teaching is also presumed to be authoritarian and to make inadequate provisions for individualism and the practices of democracy. These assumptions suggest a commitment - that to improve teaching it is necessary to encourage greater warmth on the part of the teacher as well as more classroom democracy and pupil initiative.

Today, with the introduction of a great variety of teaching techniques and varied learning environments such as project methods, independent study, team teaching, open area classrooms, "free schools", and a greater emphasis on the affective domain it is fair to say that the teacher-learning process is changing in as much as greater consideration is given to the student. However, no matter how the teaching-learning situation changes this is a reflection of the teacher's attitude towards his students which remains as one important variable in the learning process.

⁹Michael J. Dunkin and Bruce J. Biddle, (EDS.) The Study of Teaching (New York. Holt, Rinehart and Winston, Inc.) 1974. p. 361.

III TEACHER EFFECTIVENESS

The concept of teacher "effectiveness" connotes educational or social values of some kind. By teacher "effectiveness" it is usually meant the teacher's effect on the realization of some goal. Often the goal takes the form of some educational objective, defined in terms of desired pupil behaviours, abilities, habits, or characteristics. Hence the ultimate criterion of a teacher's effectiveness is usually considered to be his effect on his pupils' achievement of such objectives. The terms "Pupil Gain" and "Pupil Growth" are used to refer to this kind of ultimate criterion. Differences between measures of pupil achievement before and after coming under a teacher's influence have been used to define such gain operationally.

It was the realization that other criteria are seldom entirely escapable in research on teacher effectiveness that led to the Committee on Teacher Effectiveness¹⁰ to formulate an ultimacy paradigm for such criteria. This paradigm arranged criteria of teacher effectiveness on a continuum descending from the "Ultimate" to the "Proximate". Figure 1. shows an adaption of this paradigm.¹¹

¹⁰Committee on Teacher Effectiveness (American Educational Research Association, 1952), pp. 243-244.

¹¹N.L. Gage, (ED.) Handbook of Research on Teaching. (Chicago, Rand McNally and Company, 1964), p. 117.

Teachers' effect on:

- pupils' achievement and success in life
- pupils' achievement in subsequent schooling
- pupils achievement of current educational objectives
- pupils' satisfaction with the teacher
- parents' satisfaction with the teacher
- superintendents; satisfaction with the teacher

Teachers' values or evaluative attitudes

Teachers' knowledge of educational psychology and mental hygiene

Teachers' emotional and social adjustment

Teachers' knowledge of methods of curriculum construction

Teachers' knowledge of the subject matter

Teachers' interest in the subject matter

Teachers' grades in practice teaching courses

Teachers' grades in education courses

Teachers' intelligence

FIGURE I

THE HIERACHY OF CRITERIA ACCORDING TO "ULTIMACY"
(AFTER AMERICAN EDUCATIONAL RESEARCH ASSOCIATION,

1952, pp. 243-244)

By this paradigm, each criterion depended for its validity on its correlation, or better, its functional relationship, with criteria higher on the continuum.

Much criticism of research on teaching has been based on

the critic's dissatisfaction with the position of someone else's criterion on this continuum. The rank of some of these criteria has been hotly argued, as one might expect. For example, some educators have held that the superintendent's satisfaction with the teacher made the big difference in a teacher's career; therefore this criterion should be higher on the scale, and research should be directed towards the prediction of it. Others have held that, regardless of its "real-life" importance to teachers, this criterion has been shown to be uncorrelated with pupil gain and hence should be disregarded.

It appears that the number of the items on the upper half of the hierarchy of criteria are related to teacher attitude and the affective domain. e.g. pupils' satisfaction with the teacher, teacher's evaluative attitudes and teachers' emotional and social adjustment. Low on the Hierarchy of criteria are items which seem to have little relation to attitude. e.g. teacher's intelligence, teachers' grades in educational courses, and teachers' interest and knowledge of subject matter.

Mitzel¹² suggests a Model (Figure II) for use in research on teacher effectiveness. He indicates four types of variables, or "classifications of information" which influence and affect teacher effectiveness. These classifications were identified by Mitzel as necessary concerns of "any investigator who seeks funda-

¹²H.E. Mitzel, "Research in Teacher Effectiveness" in Handbook of Educational Research. N.L. Gage (ED.) (Chicago, Rand McNally and Company, 1964) p. 121.

mental knowledge in the general research area that is frequently called 'teacher effectiveness' ..." (p. 1.). Under Mitzel's type I variable he includes teacher attitudes as one of the personality variables influencing teacher effectiveness.

Type I. Human characteristics on which teachers differ and which can be hypothesized to account, in part, for differences in teacher effectiveness.

Type II. Contingency factors which modify and influence the whole complex of behaviours that enter into the educational process.

Type III. Classroom behaviours of teachers and pupils.

Type IV. Criteria or standards consisting of "intermediate educational goals", i.e., the measurable outcomes at the end of a period of instruction as distinguished from "the ultimate criterion which might be phrased as 'a better world in which to live'".

Some notion of the possible interrelations among the four types of variables is shown by the connecting lines in the model. In general, solid lines are indicative of direct effects and broken lines suggest indirect or tangential effects. In such a scheme teacher variables (Type I) and pupil variables (Type II) are direct determinants of teacher behaviour and pupil behaviour respectively. Environmental variables (Type III) indirectly influence both teacher and pupil behaviours. In the view presented here, the complex of pupil-teacher interaction in the classroom is the primary source to which one must look to account for pupil growth. (Mitzel p1).

It is through the intercession of his Type III variables that Mitzel saw the best hope of improvement in teacher effectiveness research. To show how the paradigm could be implemented,

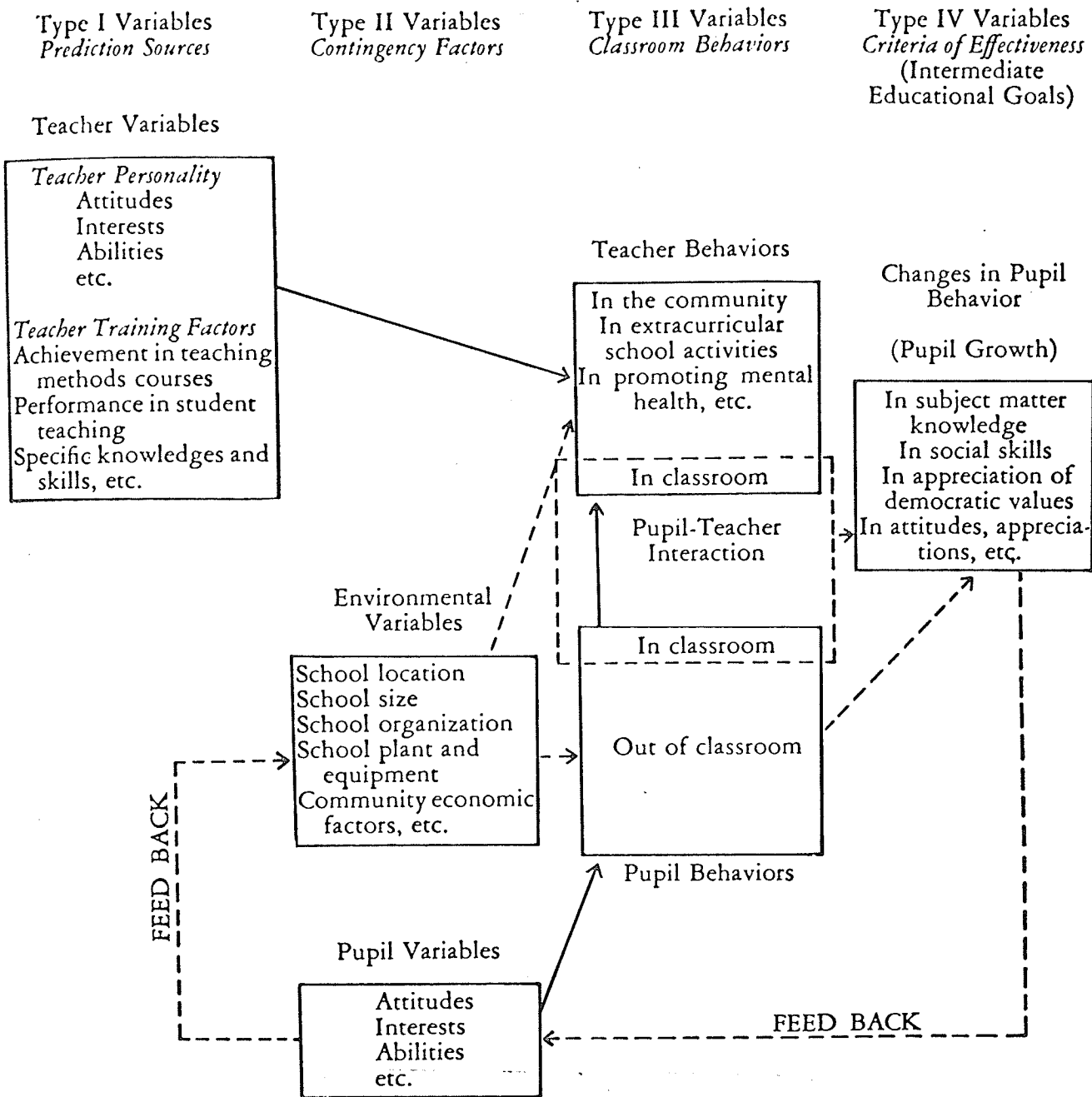


Fig. II

Generalized Scheme For Research in Teacher Effectiveness

Mitzel described the study diagrammed in Fig. III in which various actual measures, or operational definitions, of the variables named in Fig. II are entered. The study thus formulated was subsequently published.¹³

IV TEACHER ATTITUDES

A teacher's attitudes towards his pupils and teaching as a career significantly affect his behaviour with his pupils and teaching associates. On the other hand, a pupil's attitudes towards his teacher and school in general significantly affect his behaviour in the classroom. Indeed, since attitudes involve beliefs, feelings, and action tendencies, the relationship between teachers' and pupils' inter-personal attitudes can be said to comprise the most important variables affecting the classroom climate and the progress of learning wherever teachers and pupils may be found in social interaction. Flanders¹⁴ wrote that teacher behaviour accounts for more of the variance within these relationships than any other factor.

In a comparison study of elementary and secondary teachers, Ryans¹⁵ noted that superior academic teachers differed from inferior

¹³D.M. Medley and H.E. Mitzel, "Some Behavioural correlates of teacher effectiveness" Journal of Educational Psychology, 1959, pp. 50, 239 - 246.

¹⁴N.A. Flanders, Teacher influence, pupil attitudes and achievement. (Washington D.C. Gov. Printing Office. Document #OE 25040, 1965), p. 65.

¹⁵D.G. Ryans, Some validity extension data from empirically derived predictors of teacher behaviour. Educ. Psychol. Measurement, 1958, pp. 18, 355 - 370.

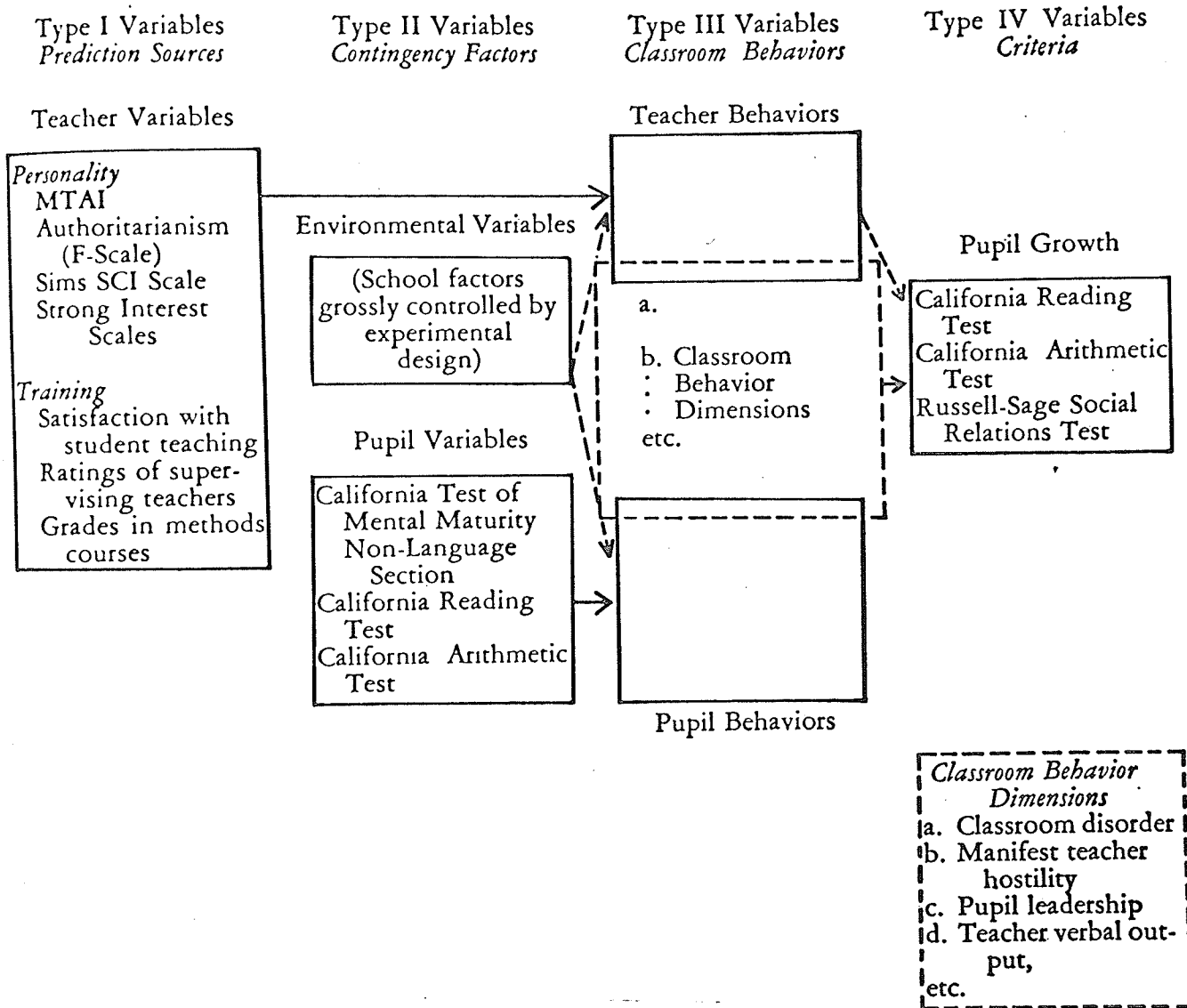


Fig. III Adaption of Fig. II

Concepts in Division of Teacher Education Assessment Program (Mitzel 1957 p. 6).

ones by certain measurable qualities: outgoing, friendly behaviour, and subject matter teaching ability. While Pidgeon¹⁶ deduced from a number of studies some evidence supporting the hypothesis that a teacher's attitudes influence the behaviour and ability of his pupils, Barker Lunn¹⁷ suggested that a decline in reading performance of children of lower social origin relative to higher social class children might, in some measure, be due to their teachers' lower expectations of them. This general argument has also been advanced by Burstall,¹⁸ when he concluded that the teacher's attitudes and expectations were of paramount importance for effective student learning.

Khan and Weiss¹⁹ also indicate that the teacher's affective behaviour in the classroom is of extreme importance in the learning situation. They state that.

It is clear that whatever else may transpire in the school, the teacher has the most central role in the development of students' affective responses. This role stems from the teacher's interaction with instructional strategies and curricular materials, his attitudes towards the group and each child, and his educational values and beliefs. Since children accurately perceive the nature of the feelings that the teacher has toward them, teachers' attitudes become important in shaping expectations of students. A warm, friendly, sympathetic and understanding teacher is more likely to have a positive

¹⁶Pidgeon, op. cit.

¹⁷Barker Lunn, op. cit.

¹⁸Burstall, op. cit.

¹⁹S.B. Khan and J. Weiss "The Teaching of Affective Responses" in Second Handbook of Research on Teaching. Robt. M.W. Traver (ED.) (Chicago; Rand McNally College Publishing Co., 1973) p. 786.

influence on the students compared to one who is cold, unfriendly and autocratic. This seems consistent with the literature which suggests that democratic and student-centred classroom practices are more effective than authoritarian and teacher-centered practices in promoting positive affective behaviours. However, **it is** unrealistic to expect that one type of classroom climate will be optional for all students and all kinds of learning.

V CHANGES OF ATTITUDE RELATED TO TRAINING AND EXPERIENCE

Callis²⁰ investigated the changes that occur during teacher training and early teaching experience. This study, as developed by Callis, was designed "to determine in a general way the stability of the attitudes being measured" (p. 719). By comparing the test-retest scores of four groups of subjects Callis discovered that all groups showed a significant change in scores between the first and second test and the groups in colleges of education experienced an increase in score between first and second test indicating a positive change in attitude.

Rabinowitz and Travers²¹ studied changes in students of education during teacher training in two institutions as these changes were manifested in drawings done by the students. It was discovered that while there were no significant difference in the

²⁰R. Callis, "Change in teacher-pupil attitudes related to training and experience". Educ. Psychol. Measmt. 1950, pp. 10, 718 - 727.

²¹W. Rabinowitz and R.M.W. Travers, "A drawing technique for studying certain outcomes of teacher education: Part 1. The development of the technique and its qualitative uses". Exploring studies in teacher personality. (N. Y. City Colleges, Division of Teacher Education. 1953, Series No. 14) pp. 18 - 22.

drawings of the groups at the beginning of teacher training, those in one institution showed a marked change during teacher training while the other group did not. The change occurred in that institution which made a deliberate effort to change students' concepts of what should go on in a classroom.

King and Scott²² in a study of the effect of an in-service institute on the attitudes of vocational teachers towards the teaching-learning process conclude that attitudes towards lesson planning, objectives, utilization of teaching aids and television, student background data, safety instruction, professional organizations, activities, evaluation and discipline were significantly changed through participation in structured learning activities.

After reviewing the research on experiments to induce teachers to become "more indirect" in their teaching - hence "better" teachers, Dunkin and Biddle²³ conclude that,

Most studies report that teachers do become more 'indirect' or less 'indirect' in response to the experimental treatment, although two studies report no significant differences in 'directness', and one even found that after initial gains there was actually a net loss in 'indirectness'. All of this suggests that adjustments in the 'indirectness-directness' balance may indeed be induced for teachers. However, there is evidence to suggest that some of these inductions are lost.

²²F.J. King and J.L. Scott. "The Affect of an in-service institute on the attitudes of vocational teachers towards the teaching-learning process." Journal of Industrial Teacher Education 9 (4), 1972, p. 28 - 32.

²³Dunkin and Biddle, op. cit. p. 117.

In-service training is a method which is frequently used to help practicing teachers improve in areas such as teaching methods, knowledge of new materials, new courses etc.

It is interesting to note here some teachers' views of in-service education. In a study by Reilly and Dembo²⁴ it was the experienced teacher who was selected (by teachers) as the source of educational information inspiring the most confidence for both the cognitive and affective areas of teaching. Experienced teachers who moved on to positions generally considered more prestigious and requiring more expertise (the professor and the change agent) inspired less confidence than the experienced teacher who is currently teaching. This would suggest that for more individualized in-service training, teachers with a weakness in a particular area could be paired with teachers who are strong in that area.

VI TEST SCORES VERSUS BEHAVIOR

Measures of change in test performance are less meaningful than demonstrations of change in actual behaviour. The possible impact of present day training programmes might be inferred from the fact that young teachers are more personal, informal, and integrative in their role than older teachers.²⁵ Yet it might be that the idealism

²⁴V.E. Reilly and Myron H. Dembo, "Teachers' Views of In-service Education." "A question of confidence," Phi Delta Kappan. Oct., 1975. pp. 57 - 126.

²⁵J.J. Valenti, "Measuring educational leadership attitudes." Journal of Applied Psychology. 1952, pp. 36, 36 - 43.

of the young teacher becomes tempered with experience.

Oliver²⁶ reported that elementary school teachers' responses to a check list of educational beliefs were consistent with modern educational philosophy, but classroom observations of the same teachers indicated that these beliefs were not implemented in the classroom. McGee²⁷ on the other hand claimed that from the results of his study "it seemed safe to conclude that what a person says on an anonymous questionnaire (ideology in words) and what he does (ideology in action) are essentially the same stuff." Oliver attributed the discrepancy to a failure to provide teachers with a genuine understanding of principles and of techniques with which to put them into practice.

McNassar,²⁸ however, reported that teachers who attended a summer workshop on teaching methods and interpersonal relations found neither enthusiasm nor support for new techniques from the local authorities.

While the implication of some studies is that training in modern techniques is not as widely acceptable, or as effective, as

²⁶W.A. Oliver, "Teachers' educational beliefs vs their classroom practices." Journal of Educ. Res., 1953, pp. 47, 47 - 55.

²⁷H.M. McGee, "Measurement of authoritarianism and its relation to teachers' classroom behaviour." Genetic Psychology Monographs. 1955, pp. 52, 89 - 146.

²⁸D. McNassar, "Conflict in teachers who try to learn about children." California Journal of Education Research. 1951, 2, pp. 147 - 155.

it perhaps could be, it is generally accepted that from the evidence cited in the majority of studies, teachers' attitudes may be altered when a deliberate attempt is made to do so. This would seem to suggest that school administrators choose wisely and plan carefully teacher in-service days.

VII VOCATIONAL TEACHERS

The amount of research available in the area of vocational teacher attitudes towards students is limited indeed.

Finch²⁹ reported a proliferation of studies that have investigated personal characteristics of degree-holding teachers but indicated that only a limited number of studies have focused on trade and technical teachers who have occupational experience and usually hold no college degree. He conducted research to identify some of the personal attributes of trade and industrial teachers and found that trade and industrial teachers are "atypical individuals." Finch suggested that further investigation into this research area may uncover more information about relationships between trade and industrial teachers' personal attributes and their attitude towards teaching.

The Ohio Trade and Industrial Education Service³⁰ conducted

²⁹C.R. Finch. "The trade and Industrial education teacher's background, values and attitude towards teaching." Journal of Industrial Teacher Education, 1969, pp. 6, (2), 55 - 64.

³⁰Ohio Trade and Industrial Education Service, "Factors contributing to student achievement," (The Ohio State University, Industrial Materials Laboratory, Trade and Industrial Education. Columbus, Ohio. 1966).

an in-depth study of the factors contributing to student achievement in trade and industrial education programmes. In this study the teacher's personality was found to be among the significant indicators of the student achievement and quality learning situations.

On the topic of lack of research in the affective domain in vocational education both Travers,³¹ after a survey of the research in this area, and Bowman³² indicate a need for additional research.

Travers states that,

Research in the affective domain (changes in interest, attitudes and values, the development of appreciations, adequate adjustments) has been conspicuously absent in vocational education research. Obviously more has to be known about attitudinal change as well as the manipulative or motor-skill area.

Bowman, in her study, indicated a "noticeable lack of research concerning the authoritarian-democratic attitudes of vocational educators."

Although the general goal of the Bowman study parallels the major goal of this study, and Bowman states in her preamble, that, "The purpose of this paper is to investigate and to compare the authoritarian and democratic attitudes of academic and vocational teachers", a number of basic differences exist between the two studies.

³¹Robert Travers (ED.) The Second Handbook of Research on Teaching. (Chicago: Rand McNally 1973). p. 1312.

³²Elaine B. Bowman. "Authoritarian-Democratic Attitudes of Academic and Vocational Teachers." Journal of Industrial Teacher Educators, Winter 1966. pp. 47 - 53.

Several significant differences are apparent between the subjects selected. Bowman selected her subjects deliberately, selecting nine elementary, seven secondary and nine vocational teachers as her total respondents. Bowman did not group her subjects by years of teaching experience but simply compared two groups; vocational teachers vs the elementary and secondary academic teachers combined. The mean number of years of teaching experience of Bowman's elementary/secondary group was 3.56 years while the mean number of years of teaching experience of the vocational group was 10.3 years.

This study will employ interview and observational techniques in an effort to obtain qualitative data to support the quantitative data generated by the MTAI. Bowman used the MTAI as her only instrument for generating data concerning her subjects' attitudes.

Bowman concluded that the comparison of the scores on the MTAI confirmed her hypothesis that vocational teachers are significantly more authoritarian than academic teachers.

VIII SUMMARY

This chapter has shown that many writers believe that a teacher's attitude towards his students is of major importance in the teaching-learning situation. It has also been shown that little research exists on the subjects of vocational education and vocational teacher attitudes. The little research available on vocational teacher attitudes does suggest that vocational teacher attitudes towards students may differ from academic teacher attitudes. The literature further indicates that teacher attitudes may be changed when a deliberate attempt is made to do so.

CHAPTER III

METHOD OF STUDY AND COLLECTION OF THE DATA

This Chapter describes the population that was studied and the sampling procedures used to select the population. Following this, a description of the instrumentation is included. The collected data was analyzed by computing a t value for the differences between the means of the various groups of scores and tested for significance at the 5% level by the use of a two-tailed test.

I INSTRUMENTATION

The instrument which was used to generate the quantitative data in this study was the MTAI which has proved to be a reliable indicator to teacher attitudes towards students.³³ The MTAI is designed to measure those attitudes of a teacher which predict how well the teacher will get along with students in interpersonal relations.

Rationale of the Inventory (MTAI p. 3)

In building an attitude scale which, when applied to a teacher, will predict the type of teacher-pupil relations he will maintain in the classroom, it is first necessary to define the extremes of the scale. What are the characteristics of desirable teacher-pupil relations? What are the characteristics of undesirable teacher-pupil relations?

³³H.L. Stein and J.A. Hardy. "A Validation Study of the Minnesota Teacher Attitude Inventory in Manitoba". Journal of Educational Research, 1957, 50, 321 - 338.

Characteristics of Democratic Teachers

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 characterized by mutual affection and sympathetic understanding. The pupils should like the teacher and enjoy school work. The teacher should like the children and enjoy teaching. Situations requiring disciplinary action in a social atmosphere of co-operative endeavour, of intense interest in the work of the day and with a feeling of security growing from a permissive atmosphere of freedom to think, act and speak one's mind with mutual respect for the feelings, rights and abilities of others. (MTAI p. 3)

Characteristics of Authoritarian Teachers

At the other end 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 tension, fear and submission; or he may be unsuccessful and become nervous, fearful and distraught in a classroom characterized by frustration, restlessness, inattention, lack of respect, and numerous disciplinary problems. In either case both teacher and pupils dislike school work; there is a feeling of mutual distrust and hostility. Both teacher and pupils attempt to hide their inadequacies from each other. Ridicule, sarcasm and sharp-tempered remarks are common. The teacher tends to think in terms of status, the correctness of the position he takes on classroom matters, and the subject matter to be covered rather than in terms of what the pupil needs, feels, knows, and can do. (MTAI p. 3)

Gage³⁴ states that the MTAI is by far the most popular instrument for the measurement of teacher attitudes and that more than fifty research studies using this instrument are reported in the literature (1963). The MTAI was developed at the University of Minnesota and the manual published in 1951 states:

³⁴ N.L. Gage, (ED.) Handbook of Research on Teaching. (Chicago: Rand McNally and Company, 1963), p. 508.

Investigations carried out by the authors over the past ten years indicate that the attitudes of teachers towards children and school work can be measured with high reliability, and that they are significantly correlated with the teacher-pupil relations found in the teachers' classrooms. The MTAI has emerged from these researches. It is designed to measure those attitudes of a teacher which predict how well he will get along with pupils in inter-personal relationships, and indirectly how well satisfied he will be with teaching as a vocation. (Cook, Leeds & Callis, 1951, p. 3)

Since the MTAI has been so widely used for the study of teacher attitudes and personality, and since it has been so frequently recommended for selecting prospective teachers, a number of investigations have been devoted to examining the character of the instrument itself. Among the questions posed are: What psychological factors do the attitudes represent? To what extent are the results due to response sets? How liable is the inventory to faking?

Factor Analysis

Ferguson, Brown, and Callis,³⁵ following up a preliminary cluster analysis study by Callis and Ferguson³⁶ which was unable to discover meaningful psychological categories for the obtained clusters, did a factor analysis of the clusters and included tests of known psychological content to help interpret the results. The factor analysis showed that there were no significant factor loadings among any of the MTAI clusters and those of the remaining

³⁵J.L. Ferguson, K.B. Brown and R. Callis. Factor Analysis of the MTAI. (Columbia: University of Missouri, 1954 (Rep. No. 4, ONR, 649 (00)).

³⁶R. Callis and J.L. Ferguson. Cluster analysis of the MTAI. (Columbia: University of Missouri, 1953 (Rep. No. 2, ONR, 649 (000)).

scales of the battery. Instead, the clustering of the items was found to be a function of the "strength of the expressed attitudes" of the teacher rather than of the substance or content of the items. The investigators concluded, "In terms of content, the evidence obtained so far suggests a single positive attitude factor is measured by the MTAI."³⁷

Response Sets

A comprehensive study of response sets and the MTAI was done by Mitzel, Rabinowitz, and Ostreicher.³⁸ MTAI data for 204 superior and 204 inferior teachers selected by principals and superintendents on the criterion of "ability to get along with pupils," were analyzed and three response sets identified:

Positive intensity, defined as the ratio of "Strongly Agree" to all positive responses;

Negative intensity, defined as the ratio of "Strongly Disagree" to all negative responses; and,

Evasiveness, based on the number of "Undecided" responses given by the teachers.

The negative intensity response set was found to influence the test scores in such a way that test validity was increased by its presence. Positive intensity was found to exert very little effect on MTAI validity. Evasiveness was found to be an attenuating influence on

³⁷Ferguson, Brown, Callis, op. cit. p. 7.

³⁸H.E. Mitzel, W. Rabinowitz and L.M. Ostreicher, Effects of certain response sets on valid test variance. (N.Y.: City Colleges, Div. of Teacher Ed. Office of Res. and Evaluation, 1955, (Res. Series No. 26)).

the validity of the MTAI. The investigators suggest,

From the standpoint of interpretation, the validity of the MTAI that is due to the content of the items should be kept separate from the validity that is accounted for by response set. (pp. 20 - 21).

Budd and Blakely³⁹ noted that a large number of moderate responses are keyed "incorrect" in the MTAI and from this concluded that persons taking a moderate position on the items of the inventory would necessarily tend to receive lower scores.

Gage, Leavitt, and Stone⁴⁰ claim that the MTAI is "loaded with acquiescence set," but argue that acquiescence itself may belong to the family of "authoritarian" and "conformity" dispositions. In that case the agree-disagree format and high loading with negative items - those expressing authoritarian opinions - of the MTAI make a positive contribution to the validity of the instrument. On the basis of this reasoning, they stated the hypothesis that negative items have greater validity than positive items for the measurement of authoritarianism - more specifically in the present context, the negative items of the MTAI would prove more valid than the positive items.

³⁹W.C. Budd and L.S. Blakely, Response Bias on the MTAI, Journal of Educational Research. 1958, pp. 51, 707 - 709.

⁴⁰N.L. Gage, G.S. Leavitt and G.C. Stone "The Psychological meaning of acquiescence set for authoritarianism." Journal of Abnormal Psychology. 1957, pp. 55, 98 - 103.

Fakeability

The susceptibility of self-report personality instruments to faking is, of course, well known. Accordingly, a number of studies were undertaken to determine the fakeability of the MTAI. Perhaps the earliest of these investigations was by Callis.⁴¹ He administered the MTAI to several groups of juniors in the University of Minnesota College of Education, first with standard instructions, and after an interval of several weeks with instructions to "get as high a score as possible." Relevant types of controls such as sequence of testing and test-retest gain or loss were used. The investigator concluded that "the inventory was found to be only slightly susceptible to attempts to fake good."

Stein and Hardy⁴² referred to the above study and one by Coleman⁴³ and concluded that neither investigation established "categorically whether or not the inventory is significantly susceptible to faking" (p. 326). They therefore investigated the problem also. Three random samples of 25 education students were drawn at the University of Manitoba and the MTAI was administered to these prospec-

⁴¹R. Callis, "The efficiency of the MTAI for predicting interpersonal relations in the classroom." Journal of Applied Psychology. 1953. pp. 37, 82 - 85.

⁴²H.L. Stein and J.A. Hardy, "A validation study of the MTAI in Manitoba." Journal of Educational Research, 1957, pp. 50, 321 - 338.

⁴³W. Coleman, "Susceptibility of the MTAI to 'faking' with experienced teachers." Educational Administration and Supervision. 1954, pp. 40, 234 - 237.

tive teachers before and after the mid-year recess. The first testing was based on standard instructions for all three groups. In the second testing one group (control) was again given the standard instruction. The second group was given the Coleman instructions. (Fill out the inventory "as you might in applying for a teaching position in a school system known for its permissive atmosphere and pupil centered point of view"), namely a "progressivist" point of view. The third group was given instructions based on the extreme opposite of the Coleman instructions, namely, a "traditionalist" point of view. The "control" group registered a significant gain in mean score with an increase of 9.92 points; the "progressivist" group registered a mean increase of 68.84 points; the "traditionalist" group a mean decrease of 141.68 points. The correlations between the scores for the two testings for the three groups were .88, .09, and .15. Despite these findings, the investigators argued that "this does not mean that the test is susceptible to faking, it means rather that the test is adequate in revealing a biased or prejudiced attitude towards children from either extreme position (p. 329). To demonstrate further that the MTAI is not susceptible to faking, the same investigators turned to the initial experimental design by Callis and administered the inventory to two groups of student teachers, a control group of 36 subjects and an experimental group of 22 subjects, with standard instructions to "fake good" as used by Callis.

The following findings are reported:

1. Only the control group increased its score significantly:
2. The variance of the control group increased from 840 to

931, that of the experimental group from 660 to 1,082:

3. The correlation between the two testings for the control group was .92, for the experimental group .69:
4. The difference between the correlations was significant at the .01 level.

Since there was no difference in the mean scores of the experimental group, the investigators suggested that "faking instructions only served to confuse the subjects" (p. 331), and implied that the inventory is not susceptible to faking.

Validity of the MTAI

Validity studies of the MTAI have been carried out in Pennsylvania, South Carolina, Missouri, Illinois, and Minnesota.⁴⁴ All of these studies were concerned with experienced teachers. The three validating criteria used singly and in combination were; principals' ratings of teachers, experts' ratings of teachers, and pupils' ratings of teachers. Of the several criteria used, the ratings by experts and pupils correlated most closely with the MTAI scores of the teachers. These combined outside criteria, when correlated with the MTAI scores, have consistently yielded validity coefficients approaching 0.60. The inventory has been found to possess reliability in the neighbourhood of 0.90, as determined by

⁴⁴Walter W. Cook, Carroll H. Leeds, and Robert Callis. Minnesota Teacher Attitude Inventory. (N.Y.: The Psychological Corporation), 1951.
G.M. Della Piana, and N.L. Gage. Pupil Values and Validity of the Minnesota Teacher Attitude Inventory. Unpublished paper on file at the Bureau of Educational Research, College of Education, University of Illinois, 1953.

the split-half procedure (Spearman-Brown corrected).

A Manitoba Validity Study

This study was unlike previous studies in that it was concerned with student-teachers.⁴⁵ These student-teachers were randomly selected from two teacher training institutions in Manitoba, namely, the Manitoba Provincial Normal School, and the Faculty of Education, University of Manitoba.

The Normal School population group was made up primarily of high school seniors who had recently graduated or left school with academic standings varying from Grade XI to a complete Grade XII. About twelve per cent of the population was drawn from the Greater Winnipeg area. The remaining eighty-eight per cent was obtained from the high-school centres across the province of Manitoba. These student-teachers were enrolled in a one-year programme of basic preparation for teaching. Emphasis was placed on preparing these student-teachers to teach in ungraded rural schools which generally included the first eight grades.

The Faculty of Education group consisted of university students with two to five years of university training in academic subjects. The majority of these people had previously obtained a degree in arts or science. These students were enrolled in a one-year course in education designed to give prospective teachers a general background in educational theory and practice and to equip them to

⁴⁵ Stein and Hardy. op. cit.

teach in primary, elementary, and secondary schools.

The two validity criteria used singly and in combination were; advisors' ratings of the student-teachers, and pupils' rating of the student-teachers.

An obtained correlation of 0.56 between the MTAI scores and outside criteria and an obtained correlation of 0.92 between MTAI scores of a first and second testing indicate that student-teacher attitude can be measured with a fair degree of both validity and reliability in Manitoba.

II ADMINISTRATION OF THE MTAI

The principals of the schools concerned were asked to allow the teachers to complete the inventory in the researcher's presence during some mutually convenient time. The 70% random sample was surveyed and a total of 155 completed surveys were returned; seventy-nine academic and seventy-six vocational.

The administration portion of the MTAI indicates that seating arrangements in the examination room should be planned in advance so as to discourage any discussion or comparison of answers. It further claims that the MTAI is practically self-administering as the subjects read the directions on the front page of the booklet and then proceed to answer each of the 150 items. There is no time limit, but the subjects are to be encouraged to work rapidly and indicate their first impressions rather than to deliberate over any one item very long. It usually takes from twenty to thirty minutes to complete the inventory.

It is interesting to note that the authors of the inventory state that due to possible ambiguity and the general nature of some of the items, there may be varying interpretations. This might lead the subjects to ask the examiner to explain the meaning of various items however the examiner should never do this but should simply say that the subject's interpretation of the items is an important factor in the inventory and that he should answer the items according to his own understanding of them.

III ADDITIONAL DATA GATHERING METHODS

Although the MTAI provided much of the data in this study, there is an inherent weakness in extrapolating subjective information from quantitative results and, although many researchers have used the MTAI in this way successfully this study employed two other methods of gathering information on teachers.

These two methods were qualitative in nature, involving personal teacher interviews and classroom observation.

Dunkin and Biddle⁴⁶ believe that live observation has serious drawbacks as a method for collecting data. Most of these stem from the complexity and rapid pace of classroom events. Because the exchanges between teachers and pupils are rapid, the observer may be overwhelmed when asked to judge as few as two independent aspects of the teaching process. In discussing observation techniques, Dunkin & Biddle state:

⁴⁶Dunkin & Biddle, op. cit. p. 60.

Since the observer must make many judgments instruments used for live observation usually are quite simple, involve relatively few categories among which the observer must judge, and often attempt to represent only one dimension of the classroom happenings. By the same token, when properly handled, data from live observation may be viewed as a sequential record of classroom events. Thus live observation allows us to look at the ebb and flow, the highs and lows of the classroom lesson, the give and take between teacher and pupil in a way that is impossible with rating techniques. (p. 60)

In an attempt to assist the observer in this study, Appendix A includes a list of events and conditions which might be expected to occur in "authoritarian" and "democratic" classrooms. Assistance in the development of these events and their classification was obtained from Dunkin and Biddle⁴⁷ when they state,

If directivess is an undimensional scale along which various styles of classroom teaching may be placed, at one end we would find the autocratic, teacher-dominated classroom. Such a classroom would be characterized by a great deal of teacher talk; by many teacher directions; by lectures, not discussions; and by little pupil initiation. At the other end one would find classrooms with a lot of pupil talk, especially pupil initiation; by a teacher who controls unobtrusively; by stimulation rather than demand; by give and take, and by motion, excitement, challenge, and self direction.

The list of events and conditions in Appendix A allowed the observer to arrive at an opinion on the authoritarian-democratic aspect of the classroom with a minimum of bias and subjective judgment on the part of the observer. The list of classroom observation criteria was structured parallel to the main factors measured by the MTAI.⁴⁸ These factors are the teacher's ability to;

1. Maintain discipline.

⁴⁷Dunkin and Biddle, *ibid.* p. 136

⁴⁸MTAI Manual p11.

2. Create a friendly classroom atmosphere.
3. Understand pupil behaviour problems.
3. Understand pupil behaviour problems.
4. Establish a feeling of security.
5. Exert a stabilizing influence on the class.
6. Develop pupil self reliance.

Observation Group.

The 70% random sample of teachers from the -four secondary schools was required to complete the MTAI. In addition, six teachers from the Kildonan-East Regional Secondary School were asked to participate in some further research. These teachers were selected deliberately by teaching area and years of teaching experience as indicated in the table below.

TABLE 1

SELECTION OF TEACHERS IN OBSERVATION GROUP

years of teaching experience (June 1975)

	2 years or less	5 years	10 years or more
VOCATIONAL	X ₁	X ₁	X ₁
ACADEMIC	X	X	X

These teachers were asked to identify their MTAI returns and participate in a personal interview schedule and a planned classroom observation schedule. Details of these additional data gathering methods are to be found in Appendices A and B.

IV THE SAMPLE

The sample consisted of teachers randomly selected from four large secondary schools in the City of Winnipeg which offer a wide range

of both academic and vocational courses.

The four schools were, The Kildonan-East Regional Secondary school, The Sturgeon Creek Regional Secondary School, The Winnipeg Technical Vocational School, and the R.B. Russell Vocational School. A 70% random sample of the academic teacher population and a 70% random sample of the vocational teacher population was selected after consultation with the principals of the schools. The sample was randomised by the use of a table of random numbers and the principals allowed a meeting with the selected teachers in order that their cooperation might be solicited. The extent of the cooperation required was limited to a forty-five minute meeting when the group completed the MTAI answer sheet.

The returned answer sheets were anonymous although the respondents were asked to identify their teaching area and their number of years of teaching experience as of June 1975.

V ORGANIZATION AND TREATMENT OF DATA

The data obtained from the MTAI returns was sorted and compiled into the following groups;

1. Total sample of academic teachers Vs Total sample of vocational teachers. The difference between the means was computed.
2. Total sample of vocational teachers. Teachers with less than five years teaching experience Vs Teachers with five years or more teaching experience. The difference between the means was computed.
3. Total Sample of academic teachers. Teachers with less

than five years teaching experience Vs Teachers with five years or more teaching experience. The difference between the means was computed.

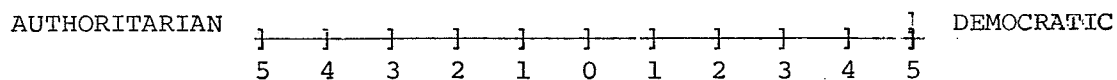
4. Partial sample of academic teachers and partial sample of vocational teachers. Academic teachers with less than five years teaching experience Vs Vocational teachers with less than five years teaching experience. The difference between the means was computed.
5. Partial sample of academic teachers and partial sample of vocational teachers. Academic teachers with five years or more teaching experience Vs Vocational teachers with five years or more teaching experience. The difference between the means was computed.

A t value for the difference between the means of the above groups was computed and tested for significance at the 5% level of confidence by the use of a two-tailed test.

From the results obtained from the t values it was possible to determine the answers to the questions postulated in chapter one pages three and four.

VI TREATMENT OF ADDITIONAL DATA

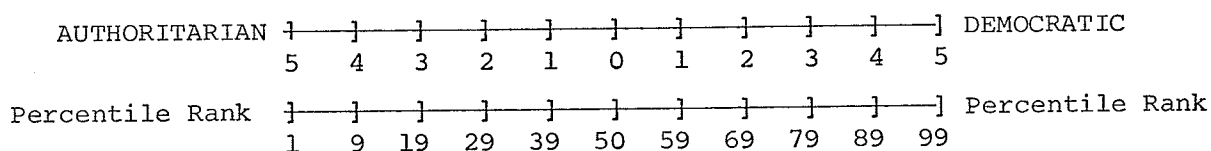
The six teachers selected for classroom observation were asked to indicate on the continuum shown below where they believed themselves to have been when they first started teaching and again where they believed themselves to be at the time of the classroom schedule.



As the observer planned to compare two subjective measures, that is, the teachers' assessment of their position on the continuum and observers assessment of the teachers' position on the continuum with the quantitative

score obtained from the MTAI it was necessary to seek a common basis for measurement. This common base was obtained by using the "Table of percentile rank equivalents for raw scores on the MTAI" as published in the MTAI manual and reproduced in Appendix C. The assumption was made that the zero or neutral point on the authoritarian-democratic continuum was equivalent to the 50th percentile rank while the five point on the democratic side represented the 99th percentile, the four point on the democratic side represented the 89th percentile etc. On the authoritarian side, the five point represented the 1st percentile and the four point represented the 9th percentile etc.

The continuum is shown below with the percentile rankings indicated beneath the authoritarian-democratic point scale.



A stratified random sample from the teacher population of the State of Minnesota (1950) provided the norms for the table of percentile rank equivalents for raw scores on the MTAI.

When the classroom observation period ended the observer marked on the continuum, for each teacher in the observation group, his estimate of the teacher's position on the continuum. The MTAI scores of the observation group were computed and translated into percentile rankings from the MTAI table then placed on the continuum. It was then possible to compare the teachers' estimation of their positions on the continuum with the positions as determined by the observer and the MTAI scores.

CHAPTER IV

PRESENTATION OF THE RESULTS

The purpose of this study was to attempt to answer the following questions related to teacher attitudes towards students.

1. Is there a difference between the attitudes of vocational and academic teachers towards students?
2. Is there a difference in the attitudes of vocational teachers with less than five years of teaching experience and the attitudes of vocational teachers with more than five years of teaching experience towards students?
3. Is there a difference in the attitudes of academic teachers with less than five years of teaching experience and the attitudes of academic teachers with more than five years of teaching experience towards students?
4. Is there a difference in the attitudes of academic teachers with less than five years of teaching experience and the attitudes of vocational teachers with less than five years of teaching experience towards students?
5. Is there a difference in the attitudes of academic teachers with more than five years of teaching experience and the attitudes of vocational teachers with more than five years of teaching towards students?

1 THE DATA

Teachers were asked to complete the MTAI survey which provides a raw score of between +150 and -150. Mean scores were calculated for

TABLE 2

MTAI SCORES ACADEMIC TEACHERS

MTAI SCORE N = 79	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP
105	20	45	8	14	3
103	25	44	15	13	10
100	17	43	17	12	12
97	23	42	20	11	4
85	4	42	10	10	15
82	9	40	16	9	12
80	4	39	4	8	15
79	8	38	4	8	10
76	13	38	18	7	28
75	0	37	6	7	4
72	32	36	12	6	4
68	8	36	6	6	12
66	15	35	12	5	14
63	7	35	7	2	1
63	20	33	19	-3	7
63	15	32	4	-3	9
62	15	31	14	-4	4
61	9	30	10	-9	19
60	15	29	20	-12	19
60	12	28	3	-16	32
59	12	26	26	-18	15
54	4	26	26	-25	11
53	12	26	6	-26	15
53	25	23	12	-26	11
53	2	22	8	-51	13
49	9	20	7	2708	970 Total
46	19	20	2	34.27	12.2 Ave.

TABLE 3

MTAI SCORES - VOCATIONAL TEACHERS

MTAI SCORE N = 76	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP
82	10	3	8	-20	7		
74	4	3	0	-20	10		
72	7	2	17	-21	9		
52	39	2	25	-22	6		
49	15	0	3	-26	5		
42	18	-1	15	-26	5		
40	5	-1	2	-28	6		
37	16	-2	14	-29	4		
33	4	-2	4	-30	9		
31	4	-3	4	-31	3		
29	5	-4	12	-33	10		
28	3	-4	4	-35	9		
26	2	-5	12	-37	5		
23	3	-6	14	-37	7		
22	10	-7	2	-37	4		
22	0	-7	9	-40	13		
20	2	-10	0	-40	2		
17	13	-10	40	-42	10		
17	4	-12	1	-43	4		
14	13	-13	10	-51	3		
11	9	-14	12	-57	15		
10	4	-16	9	-60	16		
8	18	-17	2	-70	17		
7	3	-17	10	-77	10		
4	4	-17	4	-313	647		
4	8	-17	2	-4.1	Total		
					8.5 Ave.		

each grouping and a t value for the difference between the means of the sets of scores was computed and tested for significance at the 5% level by the use of a two-tailed test.

In an attempt to support the quantitative data generated by the MTAI classroom observations were carried out with six selected teachers; three vocational teachers and three academic teachers.

The procedure which will be adopted for this chapter is to present each question and treat it separately then present the qualitative data obtained from the classroom observations.

11 INFERENCE ANALYSIS OF MTAI DATA

Question 1. Is there a difference between the attitudes of vocational and academic teachers towards students?

TABLE 4
COMPARISON BETWEEN THE MEAN MTAI SCORES OF TESTED
VOCATIONAL TEACHERS AND ACADEMIC TEACHERS

N=155	MTAI MEAN SCORES	t CALCULATED
VOCATIONAL TEACHERS	-4.1	...
ACADEMIC TEACHERS	+34.27	...
...	...	6.8
CRITICAL VALUE $t_{1,154}, 0.05=1.96$	...	...

TABLE 5
 MTAI SCORES OF VOCATIONAL TEACHERS WITH
 MORE THAN FIVE YEARS EXPERIENCE

MTAI SCORE	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP
82	10	-7	9	-70	17
72	7	-10	40	-77	10
52	39	-13	10	-290	46 Total
49	15	-14	12	-6.3	12.2 Ave.
42	18	-16	9		
40	5	-17	10		
37	16	-20	7		
29	5	-20	10		
22	10	-21	9		
17	13	-22	6		
14	13	-26	5		
11	9	-26	5		
8	18	-28	6		
4	8	-30	9		
3	8	-33	10		
2	17	-35	9		
2	25	-37	5		
-1	15	-37	7		
-2	14	-40	13		
-4	12	-42	10		
-5	12	-57	15		
-6	14	-60	16		

TABLE 6

MTAI SCORES OF VOCATIONAL TEACHERS WITH
LESS THAN FIVE YEARS EXPERIENCE

MTAI SCORE N = 30	YEARS OF TEACHING EXP	MTAI SCORE	YEARS OF TEACHING EXP
74	4	-3	4
33	4	-4	4
31	4	-7	2
28	3	-10	0
26	2	-12	1
23	3	-17	2
22	0	-17	4
20	2	-17	2
17	4	-29	4
10	4	-31	3
7	3	-37	4
7	4	-40	2
3	0	-43	4
0	3	-51	3
-1	2	-20	85 Total
-2	4	-0.66	2.8 Ave.

The finding, then, is that there was a significant difference at the 0.05 level between the attitudes of vocational and academic teachers towards students. The mean scores of -4.1 for vocational teachers and +34.27 for academic teachers indicated that vocational teachers held significantly more authoritarian attitudes towards students than did academic teachers.

Question 2. Is there a difference in the attitudes of vocational teachers with less than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience towards students?

TABLE 7

COMPARISON BETWEEN THE MEAN MTAI SCORES OF VOCATIONAL TEACHERS WITH LESS THAN FIVE YEARS TEACHING EXPERIENCE AND VOCATIONAL TEACHERS WITH MORE THAN FIVE YEARS TEACHING EXPERIENCE

N=76	MTAI MEAN SCORES	^t CALCULATED
VOCATIONAL TEACHERS Less than 5 years experience	-0.66	. . .
VOCATIONAL TEACHERS More than 5 years experience	-6.3	. . .
. . .	. . .	0.78
CRITICAL VALUE ^t _{1,75, 0.05} =1.96	. . .	. . .

TABLE 8
 MTAI SCORES OF ACADEMIC TEACHERS WITH
 MORE THAN FIVE YEARS EXPERIENCE

MTAI SCORES N = 63	YEARS OF TEACHING EXP	MTAI SCORES	YEARS OF TEACHING EXP	MTAI SCORES	YEARS OF TEACHING EXP
105	20	45	8	13	10
103	25	44	15	12	12
100	17	43	17	10	15
97	23	42	20	9	12
82	9	42	10	8	15
79	8	40	16	8	10
76	13	38	18	7	28
72	32	37	6	6	12
68	8	36	12	5	14
66	15	36	6	-3	7
63	7	35	12	-3	9
63	20	35	7	-9	19
63	15	33	19	-12	19
62	15	31	14	-16	32
61	9	30	10	-18	15
60	15	29	20	-25	11
60	12	26	26	-26	15
59	12	26	26	-26	11
53	12	26	6	-51	13
53	25	23	12		
49	9	22	8		
46	19	20	7		
				2168	914 Total
				34.4	14.5 Ave.

TABLE 9
 MTAI SCORES OF ACADEMIC TEACHERS WITH
 LESS THAN FIVE YEARS EXPERIENCE

MTAI SCORE N = 16	YEARS OF TEACHING EXP
85	4
80	4
75	0
54	4
53	2
39	4
38	4
32	4
28	3
20	2
14	3
11	4
7	4
6	4
2	1
-4	4
540	51 Total
33.75	3.2 Ave.

The finding, then, is that there was no significant difference at the 0.05 level between the attitudes of vocational teachers with less than five years teaching experience and vocational teachers with more than five years teaching experience towards students.

Although the mean MTAI score of the group of vocational teachers with more than five years teaching experience was lower than the group with less than five years teaching experience this difference was not significant at the 0.05 level which indicated that both groups held similar attitudes towards students.

Question 3. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of academic teachers with more than five years teaching experience towards students?

TABLE 10

COMPARISON BETWEEN THE MEAN MTAI SCORES OF ACADEMIC TEACHERS WITH LESS THAN FIVE YEARS TEACHING EXPERIENCE AND ACADEMIC TEACHERS WITH MORE THAN FIVE YEARS TEACHING EXPERIENCE

N=79	MTAI MEAN SCORE	t CALCULATED
ACADEMIC TEACHERS WITH LESS THAN FIVE YEARS EXPERIENCE	33.75	. . .
ACADEMIC TEACHERS WITH MORE THAN FIVE YEARS EXPERIENCE	34.4	. . .
. . .	. . .	0.067
CRITICAL VALUE $t_{1,78, 0.05}=1.96$	. . .	. . .

The finding, then, is that there was no significant difference at the 0.05 level between the attitudes of academic teachers with less than five years teaching experience and academic teachers with more than five years teaching experience, towards students.

Question 4. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of vocational teachers with less than five years teaching experience towards students?

TABLE 11

COMPARISON BETWEEN THE MEAN MTAI SCORES OF ACADEMIC TEACHERS WITH LESS THAN FIVE YEARS TEACHING EXPERIENCE AND VOCATIONAL TEACHERS WITH LESS THAN FIVE YEARS TEACHING EXPERIENCE

N=46	MTAI MEAN SCORES	t CALCULATED
ACADEMIC TEACHERS WITH LESS THAN FIVE YEARS EXPERIENCE	33.75	. . . .
VOCATIONAL TEACHERS WITH LESS THAN FIVE YEARS EXPERIENCE	-0.66	. . . .
. . . .	. . . .	3.8
CRITICAL VALUE $t_{1.45, 0.05}=1.96$	. . . .	. . . .

The finding is that there was a significant difference at the 0.05 level between the attitudes of academic teachers with less than five years teaching experience and vocational teachers with less than five years teaching experience towards students. The mean score of +33.75 for academic teachers and -0.66 for vocational teachers indicated that vocational teachers with less than five years teaching experience held significantly more authoritarian attitudes towards students than did academic teachers with similar teaching experience.

Question 5. Is there a difference in the attitudes of academic teachers with more than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience towards students?

TABLE 12

COMPARISON BETWEEN THE MEAN MTAI SCORES OF ACADEMIC TEACHERS WITH MORE THAN FIVE YEARS TEACHING EXPERIENCE AND VOCATIONAL TEACHERS WITH MORE THAN FIVE YEARS TEACHING EXPERIENCE

N=109	MTAI MEAN SCORE	t CALCULATED
ACADEMIC TEACHERS WITH MORE THAN FIVE YEARS EXPERIENCE	34.4	. . .
VOCATIONAL TEACHERS WITH MORE THAN FIVE YEARS EXPERIENCE	-6.3	. . .
. . .	. . .	5.8
CRITICAL VALUE $t_{1,108, 0.05}=1.96$	. . .	. . .

The finding is that there was a significant difference at the 0.05 level between the attitudes of academic and vocational teachers with more than five years teaching experience towards students. The mean scores of +34.4 for academic teachers and -6.3 for vocational teachers indicated that vocational teachers with more than five years teaching experience held significantly more authoritarian attitudes towards students than did academic teachers with similar teaching experience.

III QUALITATIVE DATA

TABLE 13

DESCRIPTION OF TEACHERS IN OBSERVATION GROUP

TEACHER	TEACHING AREA	YEARS OF TEACHING EXP	MTAI SCORE	PERCENTILE RANK
A	ACADEMIC	2	+20	47
B	ACADEMIC	5	+39	63
C	ACADEMIC	10	+53	72
Mean	. . . .	5.6	37.3	. . .
D	VOCATIONAL	2	-17	27
E	VOCATIONAL	5	+17	57
F	VOCATIONAL	12	-1	38
MEAN	. . . .	6.3	-0.5	. . .

The six teachers comprising the observation group have been referred to as teacher A,B,C,D,E, or F as the case may be in order to maintain anonymity. Table 13 shows the teaching area, years of teaching experience, MTAI score, and percentile ranking of each teacher in the observation group.

A graphic description of the data obtained from the observation group is presented below.

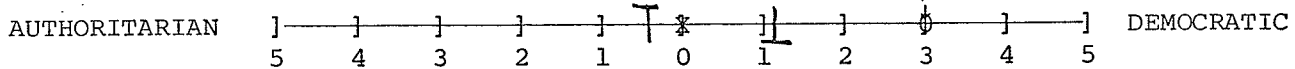
This data comprises;

1. The position the teacher believed himself to have been on the

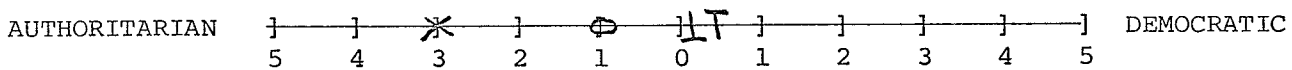
continuum when he first started teaching. This is denoted by 0.

2. The position the teacher believed himself to have been on the continuum during the observation period. This is denoted by X.
3. The position the observer placed the teacher on the continuum after the observation period. This is denoted by L.
4. The position of the teacher on the continuum as determined by the MTAI score converted into a percentile ranking. This is denoted by T.

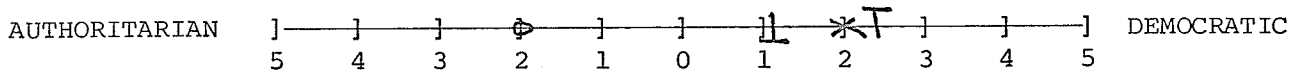
TEACHER A



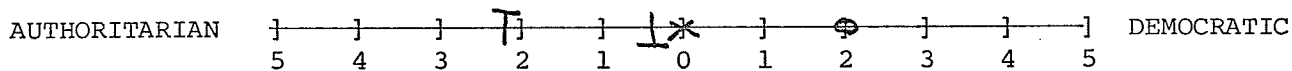
TEACHER B



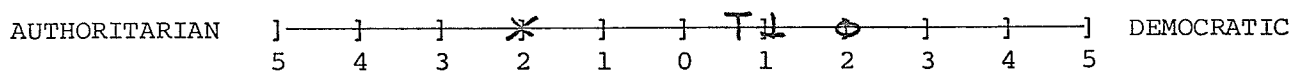
TEACHER C



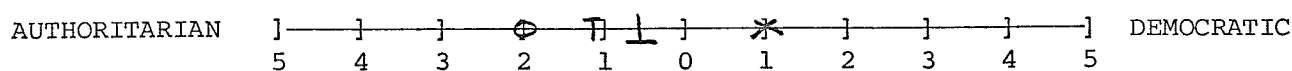
TEACHER D



TEACHER E



TEACHER F



Actual Classroom Practices of the Observation Group.

During the observation period it was noted that the actual class practices of the teachers in the observation group varied a great deal. Many class practices which typified a particular teacher's performance were repeated continuously and a selection of these practices are noted below.

TEACHER A

This teacher did most of his teaching from a chair. Such a habit might be thought authoritarian when the teacher directs all activities from his central position in the classroom. However, in the case of teacher A, it soon became apparent that this was not a habit developed because of an authoritarian personality - teacher A was merely reluctant to move about the room. For example, the teacher would enter the classroom (frequently late), wave and smile to the students as he dropped into his chair taking care not to spill his cup of coffee.

During one visit the teacher announced, over the noise, that he would read out some spelling answers (greeted by loud groans from the class). After the teacher had spent a few minutes reading the correct spelling of various words one student called out and asked the teacher to spell slowly; the teacher continued S-L-O-W-L-Y. This was greeted by jeers and cat calls from the class. During the correction of the spelling, students talked freely among themselves often ignoring the teacher and asking friends the answers when they missed them through inattentiveness.

The students in this class always sat in a large semi-circle around the perimeter of the room with close friends bunching together close to the windows (where they could have an unobstructed view of the outside activities) or the door. Nobody sat close to the teacher.

Classes never started on time with this teacher - if the teacher wasn't late then a number of students generally were.

On one occasion the observer arrived in the classroom some ten minutes before the teacher and noted some amusing antics as the students arrived. One student came bursting into the room with his arms held over his head pretending that he was a ballet dancer. Another came crawling into the room with his tongue hanging out calling for water.

This teacher described himself as fairly authoritarian, yet he was observed to exhibit many characteristics which might be classified as extremely democratic. After much deliberation it was concluded that this teacher was not extremely democratic neither was he as authoritarian as he believed. The very loose way that this teacher conducted his classes was diagnosed as apathy rather than extreme democracy.

Teacher A genuinely believed that he had changed his attitude towards students since beginning teaching - from very democratic to neutral on the continuum. His MTAI score placed him on the authoritarian side of the continuum which was fairly consistent with his own estimate of his position.

TEACHER B

Teacher B's classes were always active. The teacher carefully planned activities for each class, often using a variety of audio visual equipment and a great variety of group projects.

The teacher was invariably in the classroom when the students arrived at the beginning of the class. As the students arrived the teacher would greet them with a smile and some light bantering. There appeared to be mutual respect in the joking between students and teacher at this time.

The class usually began with little wasted time and as the class progressed it was punctuated by numerous jokes made by the teacher with an occasional reply from a student.

Often the teacher would poke fun at individual students and the others would laugh appreciatively without prolonging the joke unnecessarily. There was no malice in any of this joking and the students' at whom the jokes were directed did not appear concerned. For example, in one particular class there was a young lady of unusual good looks. This young lady was teased regularly by the teacher, particularly if she was late for class. On one occasion the teacher commented, as the young lady entered the room some ten minutes late, that the class could now settle down to some serious work as Miss X had now made her grand entrance and had been suitably appreciated. Such comments from the teacher elicited responses from the students ranging from low appreciative chuckles to a series of whistles. These responses and the laughter caused by them was not unnecessarily prolonged; the students immediately returning to their work.

When students arrived late for class they always approached the teacher and informed him of their reason for being late. The student would then take his place in class and immediately participated in class activities.

Although this teacher was the focus of the activity on many occasions, it was difficult to see this as instances of authoritarian actions as he attempted to involve the students as much as possible. For example, if the teacher was working with an overhead projector, he would make many references to earlier lessons and ask questions of the class in general about these earlier lessons and their relationship to the current work. The teacher managed, by such means, to give his lectures the appearance of student centered activities.

This teacher described himself as extremely authoritarian and a "slave driver". During the post observational interview it became apparent that this teacher confused his

high standards and the great demands he made of students with authoritarianism.

It is doubtful that any student views teacher B as authoritarian for it is always possible to see this teacher walk about the classroom among the students, smiling, helping, and joking as the students work. Soft ethnic music plays constantly from a record player in the corner of the room giving a very relaxed atmosphere to the class.

TEACHER C

Teacher C conducted his classes in an atmosphere of mutual respect. The teacher appeared to respect his students as persons and the students appeared to respect the teacher first as a person and second as a teacher.

Students in this classroom sat on typist seats and could push themselves from place to place in the room without leaving their seats. The students sat and worked in groups and would often call out questions to others across the room. It was not unusual to see a student moving across the room on his wheeled chair in response to a question from a fellow student.

Although the students had this freedom of movement they did not appear to take advantage of this in any way. Their movements were always controlled and not in any way boisterous.

This teacher smiled a lot in class and listened attentively when students called out questions from the various corners of the room. On one occasion a student asked a question of the teacher and was answered, at great length, by a fellow student. Finally, another student interrupted in exasperation and told the talkative student to be quiet and let the teacher give the correct answer.

When teacher C informed the class of a forthcoming test he asked if this conflicted with any other tests the students might have. One student, in a joking manner, claimed a conflict

of some small magnitude and was over ruled by the rest of the class.

Both doors to teacher C's classroom were always left open allowing late students free access to the room without disturbing class activities. When the bell rang indicating the mid point of an extended period the students would leave the room for a break without permission from the teacher. The teacher did not leave for a break but walked around the room examining students' work. Some students returned from their break within a very short time and usually went over and talked to the teacher. Students straggled back from their break over a ten minute period and returned to their work without a formal "end of break" announcement from the teacher.

On one occasion the teacher was called to the office during class time. When the teacher left the room there was little or no change in activity in the classroom. The students seemed almost unaware of the teacher's absence and continued with their work and low volume conversations.

Teacher C believed that he had, at one time in his teaching career, been extremely authoritarian but had since become much more democratic. He believed himself to be fairly high on the democratic side of the authoritarian-democratic continuum at the time of the observation period. This teacher appeared to have an accurate perception of himself.

TEACHER D

Teacher D did a great deal of work on the chalk board; his students spending much time writing notes copied from the board. The teaching format in this classroom rarely varied; students sat in regular rows listening attentively with poised over notebooks. The teacher was usually the focus of attention although the students seemed free to ask questions of the teacher at any time and discuss freely among themselves when

the teacher was not actively lecturing.

The classroom door was always closed at the start of class and during class. Late students were questioned on their reasons for being late before being allowed to go to their seats. This effectively disrupted the lecture on a number of occasions.

During one observation period the first five minutes of class were taken up discussing, with the students present, the probable whereabouts of several missing students. When the missing students finally arrived at the door of the classroom as a group, there was further delay and disruption to the lesson while all students gave their reasons for lateness. The students were then warned that the teacher would look into these reasons at a more appropriate time. The partially hidden threat here was, of course, "look out if your reasons don't check out."

During an extended period when the bell rang indicating that a break might be given to the students, the students gave no sign that they had heard the bell. They waited until the teacher told them that they might take a break before leaving their seats. The break was strictly limited to five minutes and, although most students had completed their break much sooner than this, they elected to remain outside the classroom until told to return.

Teacher D frequently had to tell his students to be quiet, particularly at the beginning of a class or after a break. Although the teacher himself, talked a lot, working on the chalkboard much of the time, he did ask the students many questions. Unless the question was directed at one particular student any student felt free to attempt an answer. This frequently caused some confusion when the students would take the opportunity to talk among themselves and would again be told to be quiet.

This teacher believed that he had been "too democratic" when he started teaching and had "tightened up somewhat" since then. He appeared to have a fairly accurate estimate of his position on the authoritarian-democratic continuum.

TEACHER E

Teacher E described himself as "authoritarian for the good of the students." He believed that he had been very democratic when he started teaching but had since become quite authoritarian as he believed that students required greater discipline than he had practiced.

Despite teacher E's claim to authoritarianism he seemed to exhibit many of the characteristics of the democratic teacher and was very well liked by his students. Frequently this teacher would severely criticize a student's work but end up with his arm round the student as they walked off together to the student's station in the classroom where they would work out the problem together.

The door to this teacher's classroom was never closed. Students felt free to come and go as they wished. When the teacher called the roll, usually half way through the class, the students would look up from their work, answer their names and add what they knew of missing students without disrupting the class. This adult-like behaviour was common in this teacher's classes. The atmosphere was always relaxed yet quite worklike.

In this class students worked on individual and group projects. Consequently, at the beginning of each class, some students would immediately begin work while others would group around the teacher and wait for his attention. While they were waiting, the students would joke with each other in a mature way without disturbing the students working in other areas.

When the teacher had all students working on their projects he would walk around the various groups and offer advice and assistance. If students required assistance before the teacher reached them they would either call out to attract the teacher's attention or take their project up to the teacher directly. One particular group of nine students, working on a common project, were reprimanded for the quality of their work. The students looked rather sheepish after the reprimand but by the time the teacher left the group they had managed to correct their problem under the teacher's guidance. One student in the group was overheard to say that he was glad that the teacher had checked up on them at that time as it would have been a monster to correct at a later time.

This classroom was a very busy place. Students and teacher seemed totally involved in their work and when the teacher was called out of class work carried on as usual with little or no disruption during the teacher's absence.

Although this teacher claimed that he was authoritarian and did reprimand students severely at times, he exhibited behaviour typical of a very democratic teacher. During a post observational discussion this teacher admitted that he liked to see himself as an authoritarian because of his belief that students require discipline but he was prepared to accept that he was found to be "soft at heart."

TEACHER F

Teacher F was the opposite of teacher E in that he believed that he had started teaching as an authoritarian and had since become "quite democratic." This may indeed have been the case if so, then this teacher must have been extremely authoritarian in his early teaching career for he was seen by the observer as distinctly authoritarian.

This teacher lectured a great deal with his students sitting in a semicircle, the teacher being the focus of this semicircle.

He consistently made use of a number of teaching aids such as slide and overhead projectors in addition to the chalkboard; his approach often being that of a lecturer.

During one lecture/demonstration the teacher instructed the group of silent students on several soldering techniques. As the lesson progressed the teacher asked several questions of certain students, refusing to accept answers from anyone but the student specified. At the conclusion of the lecture the teacher asked for a volunteer from the student body to demonstrate one particular soldering technique. When no one volunteered the teacher selected a student to join him as the center of attraction and demonstrate the soldering skill he had presumably just learned. During the student demonstration the teacher would stop the student at various stages and ask both the student and the class if the technique was being demonstrated properly. The students were generally quiet during these demonstrations although student questions were not discouraged. When the demonstrating student completed his task the finished piece of work was praised by the teacher and passed round the class where it received a critical inspection.

During one lecture a student attempted to ask a question and was asked, by the teacher, to wait until the teacher had finished his particular train of thought. Shortly afterwards the teacher asked the student to repeat his question which the student did without any offence. On another occasion a student, with his hand raised to ask a question, was asked to lower his hand until the teacher completed the lecture.

Students were usually seated in this teacher's class without delay at the beginning of a period. Rarely were students tardy in getting to class. When the bell indicated that the class had come to an end the students would stir slightly but wait to be dismissed by the teacher.

An attempt was made to ensure that all classes visited consisted of the same type of students. That is, as vocational teachers taught only vocational students, the academic teachers were visited when they taught classes consisting of mainly vocational students.

During the observation period the three academic teachers tended to act in a more democratic manner in the classroom than did the three vocational teachers. Vocational teacher E appeared to behave in a more democratic manner than vocational teachers D and E, and approached the level of democracy exhibited by the group of academic teachers.

The members of the observation group generally displayed attitudes consistent with their MTAI scores and consistent with the MTAI scores of their larger group. That is, the mean MTAI score of the three vocational teachers was -0.5 and the mean score of the large vocational sample was -4.1. The mean MTAI score of the three academic teachers was 37.3 and the mean score of the large academic sample was 34.27.

Each teacher in the observation group will now be taken separately and some classroom incidents which occurred on more than one occasion will be used to support the observers placement of the teacher on the authoritarian-democratic continuum.

TEACHER A

Students consistently came in late for class and this was ignored by the teacher. When the teacher entered the classroom the students would call out a friendly greeting. The teacher's attempts to bring the class to order always took a few minutes. The teacher smiled consistently and joked with the students. When the bell rang for the end of class the students would leave without the teacher's permission.

TEACHER B

When students came into the class late they would approach the teacher and explain quietly the reason for their lateness then proceed to their seat with no interruption to the class.

Regular group activities were in evidence in this classroom. When the bell rang for the end of class there was a general student movement from the seating arrangement. The teacher usually dismissed the students then. The teacher joked with the students on numerous occasions and the students responded in a natural and mature manner.

The students in this classroom always appeared relaxed yet attentive. They talked quietly to each other in groups while the teacher moved among the groups.

It is interesting to note here that this teacher believed himself to be extremely authoritarian but was observed to be quite democratic. During the post observation conference it became apparent that this teacher confused high standards with authoritarianism. While this teacher's demands on his students were indeed great, he did manage to maintain a democratic classroom.

TEACHER C

The atmosphere in this classroom was very relaxed. The teacher smiled easily and the students responded spontaneously. The students in this classroom worked at their own speed and felt free to ask fellow students or the teacher for help. Students would enter the room at odd times and would go directly to their seat and start working with no disturbance to the class. The students sit in a haphazard arrangement and move about the class at will. When the bell rings at the end of class the students leave without waiting to be dismissed.

TEACHER D

This teacher lectured much of the time while the students sat and made notes. The classroom door was always closed and most students were in place when the class began. Students who came in late were always questioned on the reason for their lateness. When the bell rang for the end of class the students waited to be dismissed.

TEACHER E

Although this teacher believed himself to be quite authoritarian

his classroom actions and his MTAI score both indicated that he was quite high on the democratic end of the continuum. This teacher had many group projects for his students. The students would crowd around the teacher waiting for assistance with their projects. While waiting for assistance the students would talk and joke together. The atmosphere in this classroom appeared quite relaxed although the students were aware of some basic safety rules and followed these rules carefully. For example, when students arrived before the teacher entered the room they would not start up the machinery as this was considered a dangerous practice. Students were free to leave the room and return without teacher permission.

TEACHER F

This teacher tended to dominate the classroom by lecturing consistently and generally being the focus of most activities. The door to the classroom was always closed and late students were questioned on their reasons for being late immediately they entered the room. When the teacher asked a question he would accept the answer from only the student to whom the question was directed. Students did not leave the room at the end of the period until given permission to do so.

All teachers in the observation group believed that they had moved along the authoritarian-democratic continuum in some way since beginning teaching. Four teachers believed that they had become more authoritarian since they started teaching and two teachers believed they had become more democratic since they started teaching.

All teachers attributed this change in position on the continuum, at least in part, to item three on the questionnaire which reads, "learned through experience how to control students".

Five of the six teachers believed that change in their could also be attributed, in part, to item five on the questionnaire which reads, "colleagues helped change my attitude".

The data shown in table seven page fifty-three indicates that there appears to be no significant difference in attitude between vocational teachers with less than five years teaching experience and

vocational teachers with more than five years teaching experience.

Similarly, the data shown in table ten page fifty-six indicates that there appears to be no significant difference between the attitudes of academic teachers with less than five years teaching experience and academic teachers with more than five years teaching experience.

During the observation period it was found to be impossible to detect distinct differences in attitudes of the teachers which could be attributed to teaching experience.

IV SUMMARY

This chapter has presented the results of the study. The data generated by the MTAI was presented in tabular form and used to answer the five questions posed earlier in the study regarding vocational and academic teacher attitudes.

Some actual class practices of the teachers in the observation group were noted and the qualitative data obtained from the series of observations provided support for the data generated by the MTAI.

CHAPTER V

1 ANALYSIS OF RESULTS

The theoretical significance of this study derived from the fact that research indicates that a definite relationship exists between a teacher's attitude towards his students and the classroom performance of these students. Generally, it is accepted that educational gains are greater in a democratic classroom.

From the results of this study the implication is that the educational gains experienced in vocational classrooms may be less than the gains experienced in academic classrooms. Further, as it is accepted that it is possible to effect a change in a teacher's attitude, then it must be possible to change the attitudes of vocational teachers, to some degree, from authoritarian to democratic thereby improving the learning environment in vocational classrooms.

All teachers in the observation group believed that their attitudes had changed since their beginning years of teaching; four teachers believed that they had become more authoritarian and two believed they had become more democratic. This appears to indicate that teachers recognise that their attitudes may change over a period of years. The teachers in the observation group believed that they could identify reasons for the attitude changes they believed they underwent; all thought that the practical experience of teaching had played a part in their attitude change. However, the teachers seemed unaware that their attitude could affect the learning situation in their classrooms.

As it seems obvious that teachers would not knowingly

maintain attitudes towards students which was detrimental to the learning situation, it may be necessary to introduce vocational teachers to the fact that attitudes are important and help these teachers identify their attitudes and encourage changes where necessary.

The practical significance of this study was due to the sudden increase in the number of vocational teachers in Manitoba over the last five years. Sixty-nine teachers were employed to teach vocational courses in Manitoba in the 1969-70 school year and 220 were employed in similar positions in the 1975-76 school year. This increase can be attributed, at least in part, to the construction of seven Regional Comprehensive schools in the province, each offering a wide range of vocational courses.

As the increase in the number of vocational teachers in Manitoba over the last five years is significant and as this study indicates that vocational teachers hold attitudes towards students which are significantly more authoritarian than those held by academic teachers then it would appear that educators in Manitoba should at least be made aware of the fact that the learning environment in vocational classrooms may be improved by improving teacher attitudes towards students. Educators should also be made aware of the various techniques and strategies which may be employed to effect change.

The results of the MTAI scores indicated that;

1. Vocational teachers were more authoritarian than academic teachers.
2. Vocational teachers with less than five years teaching experience held attitudes (authoritarian) similar to those of vocational teachers with more than five years teaching experience.
3. Academic teachers with less than five years teaching

held attitudes (democratic) similar to those of academic teachers with more than five years teaching experience.

4. Vocational teachers with less than five years teaching experience held attitudes which were more authoritarian than those held by academic teachers with less than five years teaching experience.

5. Vocational teachers with more than five years teaching experience held attitudes which were more authoritarian than those held by academic teachers with more than five years teaching experience.

Earlier in this study it was considered possible that the attitudes of beginning vocational teachers might change after a few years in the teaching profession. Several reasons were given for the possibility of a change. These reasons were related to the vocational teachers' change in employment. It was considered that the vocational teacher might become more democratic as his years of teaching experience increased. However, an examination of the mean MTAI scores indicate that the group of vocational teachers with more than five years teaching experience had a lower mean score than the group of vocational teachers with less than five years teaching experience. This lower MTAI score, although not significant at the five per cent level, indicated that the group of vocational teachers with more than five years teaching experience maintained attitudes which were at least as authoritarian as the vocational teachers with less teaching experience.

Does this mean then that we can expect vocational teachers to maintain authoritarian attitudes towards students throughout their teaching careers and perhaps become more authoritarian?

This study does not answer that question. In fact it is possible that the group of vocational teachers with more than five years teaching experience were even more authoritarian when they began teaching some years earlier and have indeed become

more democratic in absolute terms. Perhaps the group of vocational teachers with less than five years teaching experience would indicate a change in attitude in a democratic direction if retested in a few years without the benefit of a programme designed to effect attitude change.

The MTAI scores of the academic teachers indicated that academic teachers held more democratic attitudes towards students than did vocational teachers and that there was no significant difference between the attitudes of academic teachers with less than five years teaching experience and the attitudes of academic teachers with more than five years teaching experience. This indicated that academic teachers, like vocational teachers, maintained similar attitudes towards students regardless of their teaching experience. The difference being that the academic teachers maintained democratic attitudes towards their students. Again it is not possible to say that the group of academic teachers with the greater amount of experience came into the teaching profession with attitudes similar to the ones they now hold. The possibility exists that they have become more democratic over the years. Similarly, the group of academic teachers with less than five years teaching experience may, if retested some years hence, indicate a significant change in attitude. It is only if attitude change is deliberately planned that it is possible to predict accurately the direction that change will take.

The MTAI score generated quantitative results from which the above inferences were drawn. Further inferences were drawn from the more qualitative data generated during the teacher observation period.

During the observation period, no obvious differences in attitudes, which could be attributed to years of teaching experience, were noted with the group of vocational teachers. Similarly, no obvious differences in attitudes, which could be attributed to differences in years of teaching experience, were noted with the group of academic teachers. However, as a group, the academic teachers were observed to exhibit more

democratic attitudes than the vocational teachers.

By choosing teachers for the observation group with two, five, and ten or more years teaching experience it was hoped that any obvious change in attitude between teachers in the same group might be identified as occurring at or between certain years of experience thus establishing the existence of a systematic relationship between attitude and experience. This was not the case as already stated. However, the MTAI scores of the academic teachers in the observation group showed a systematic relationship to years of experience; as teaching experience increased likewise did the MTAI scores obtained by the teachers. That is, teacher A with two years experience obtained a score of +20, teacher B with five years experience obtained a score of +39 and teacher C with ten years experience obtained a score of +53. An increase in the MTAI score indicates a change of attitude in a democratic direction.

Such a systematic relationship was not evident in the MTAI scores of the vocational teachers in the observation group. The vocational teachers, in addition exhibiting more authoritarian attitudes than the academic teachers, obtained lower MTAI scores.

It can be said that the qualitative results generated by teacher observation supported the quantitative results generated by the MTAI scores of the teachers surveyed. That is,

1. Academic teachers were seen to be more democratic than vocational teachers.
2. No difference in attitude was noted between vocational teachers with less than five years teaching experience and vocational teachers with more than five years teaching experience.
3. No difference in attitude was noted between academic teachers with less than five years teaching experience and academic teachers with more than five years teaching experience.

4. Academic teachers with five years teaching experience or less were seen to be more democratic than vocational teachers with similar teaching experience.

5. The academic teacher with more than five years teaching experience was seen to be more democratic than the vocational teacher with similar teaching experience.

The fact that teacher B thought himself to be extremely authoritarian yet was shown, by the MTAI scores and by observation, to be quite democratic deserves some comment.

This teacher confused the stringent demands he made of his students with authoritarianism. When the classroom observation period was over the teacher was permitted to see the criteria (Appendix A) which differentiates between the overt behaviour of the democratic and the authoritarian teacher. The teacher then readily agreed that he had been mistaken in his estimation of his position on the continuum and re-appraised himself as democratic.

The important point to bear in mind is that a teacher may be extremely demanding of his students and have high challenging expectations of them yet be quite democratic in the classroom. In fact, this teacher appeared to be the most effective teacher visited during the course of the study.

All teachers visited during the observation period seemed to be effective in the classroom. Their effectiveness, of course, varied but as all had been employed for two years or more, all had been classed by the school administration as acceptable.

Perhaps it should be considered that the teachers in the observation group obtained MTAI scores which placed them between the 27th and the 72nd percentile and were placed by the observer between the 40th and the 65th percentile.

It is doubtful that any teacher placing on the extremes of the authoritarian-democratic continuum would be classed as acceptable in the classroom. This means that there must be an area on the continuum

which can be classified as the acceptable or functional range. This study does not identify this range and one must ponder if this range is the same for all teachers in all situations.

A rather interesting fact was noted when the MTAI data had been collected from all sources. The means for each individual school were calculated for both groups of teachers - vocational and academic and the following information was noted.

1. The mean MTAI scores of the vocational teachers in the two older schools were lower than the mean scores of the vocational teachers in the two more modern schools.
2. The mean MTAI scores of the academic teachers in the two older schools were lower than the mean scores of the academic teachers in the two more modern schools.

The differences between the means were not tested for significance but this difference leads us to question what is the functional range on the continuum and is it the same for all schools?

It appears that this functional range must be dependent not only upon teacher attitude but also is a function of the milieu in which the teacher works, the attitudes of the students, climate of the school, and a certain chemistry between all of them that makes the whole system function.

Future Planning

The results of this study have implications for pre-service and in-service training of vocational teachers.

This study has shown that vocational teachers are more authoritarian than their academic counterparts, regardless of years of teaching experience. It has also shown that authoritarian classrooms are not as conducive to effective learning as democratic classrooms. Therefore, the inference is that vocational teachers can improve their effectiveness in the classroom by seeking to improve their attitudes towards students.

This would indicate a need for a greater awareness among educators of the importance of teacher attitudes in the classroom. An active campaign to promote this awareness will be necessary. Following this awareness phase, it would be necessary to implement some form of programme designed to improve teacher attitudes by pre-service training at Red River Community College (where most of the vocational teachers in Manitoba receive teacher education) and by in-service training at the school level. This is noted again in the implications of the study in chapter VI page eighty-nine.

The Manitoba Department of Education must take a leading role in order to provide the necessary impetus for an effective province wide programme designed to effect attitude change.

11 SUMMARY

In this chapter the results of the study were analysed. The data generated by the classroom observation period supported that generated by the MTAI. Both sets of data indicate that the attitudes of vocational teachers are authoritarian and may be harmful to the learning situation in vocational classrooms.

A re-training programme appears necessary and the Department of Education would seem to be the body from which one might expect encouragement for such a programme.

CHAPTER VI

SUMMARY AND CONCLUSIONS

I THE PROBLEM RESTATED

The major purpose of this study was to determine whether the attitudes of vocational teachers towards their students differed from the attitudes of academic teachers towards their students. Further, it was hoped to determine if a teacher's attitude towards students was systematically related to years of teaching experience.

Specifically, this study was designed to answer the following questions.

1. Is there a difference between the attitudes of vocational and academic teachers towards students?
2. Is there a difference in the attitudes of vocational teachers with less than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience, towards students?
3. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of academic teachers with more than five years teaching experience, towards students?
4. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of vocational teachers with less than five years teaching experience, towards students?
5. Is there a difference in attitudes of academic teachers with more than five years teaching experience and the attitudes of vocational teachers with more than five years teaching experience, towards students?

The two main groups of teachers participating in this survey were vocational teachers and academic teachers. The teachers were selected randomly from four schools in the City of Winnipeg offering a wide range of both vocational and academic courses.

The teachers were asked to complete the MTAI survey, indicating on their return their teaching area and the number of years of teaching experience in that area.

In an attempt to support the quantitative data generated by the MTAI, classroom observations were carried out with six selected teachers; three vocational teachers and three academic teachers. The sample in this study totalled one hundred and fifty-five teachers; seventy-nine academic and seventy-six vocational.

11 SUMMARY OF PROCEDURE

The instrument employed in this investigation was the Minnesota Teacher Attitude Inventory. The MTAI generates a raw score between +150 and -150. As mentioned earlier in this chapter, teachers were asked to indicate on their returns only their teaching area and the number of years of teaching experience in that area.

Mean scores were calculated for the groups which were to be compared. That is, vocational teachers V academic teachers, vocational teachers with less than five years teaching experience v vocational teachers with five or more years of teaching experience, academic teachers with less than five years teaching experience V academic teachers with five or more years teaching experience, academic teachers with less than five years teaching experience V vocational teachers with less than five years teaching experience, and academic teachers with five or more years of teaching experience V vocational teachers with five or more years of teaching experience.

A t value for the difference between the means for each group shown above was computed and tested for significance at the 5% level by the use of a two-tailed test.

111 SUMMARY OF FINDINGS

A summary of the major findings in this study were presented in tabular form in tables 4, page 50, 7, page 53, 10, page 56, 11, page 57 and 12 page 58. The information presented in these tables will now be used to answer the following questions.

Question 1. Is there a difference between the attitudes of vocational and academic teachers towards students?

It was found by means of a t test for the difference between the means of two independent samples that there was a significant difference between the attitudes of vocational and academic teachers towards students. The mean score of -4.1 for vocational teachers and +34.27 for academic teachers indicated that vocational teachers held attitudes which were significantly more authoritarian than those held by academic teachers.

Question 2. Is there a difference in the attitudes of vocational teachers with less than five years teaching experience and the attitudes of vocational teachers with five or more years of teaching experience towards students?

It was found by means of a t test for the difference between the means of two independent samples that there was no significant difference between the attitudes of vocational teachers with less than five years teaching experience and vocational teachers with five years or more teaching experience.

Before the present study was undertaken it was believed that the attitude of a vocational teacher might change after a few years in the teaching profession due to a number of factors, some of

are;

1. Change in the teacher's general goal; from industrial production to teaching.
2. Change in the teacher's work environment from an industrial setting to a classroom.
3. Change in the teacher's colleagues from industrial to professional.
4. Change in the teacher's educational standing. The tradesman must now obtain further education in the area of teaching.

Indeed, the six teachers in the observation group believed that their attitude towards students had changed since they started teaching. However, the findings revealed no significant difference in attitudes, related to experience, between two similar groups.

Question 3. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of academic teachers with five years or more teaching experience towards students?

It was found by means of a t test for the difference between the means of two independent samples that there was no significant difference between the attitudes of academic teachers with less than five years teaching experience and academic teachers with five years or more teaching experience.

Question 4. Is there a difference in the attitudes of academic teachers with less than five years teaching experience and the attitudes of vocational teachers with less than five years teaching experience towards students?

It was found by means of a t test for the difference between the means of two independent samples that there was a significant difference between the attitudes of academic teachers with less than five years teaching experience and the attitudes of vocational teachers with less than five years teaching experience.

The mean score of +33.75 for academic teachers and -0.66 for vocational teachers (table 11) indicated that vocational teachers held attitudes which were significantly more authoritarian than those held by academic teachers with similar teaching experience.

Question 5. Is there a difference in the attitudes of academic teachers with five or more years of teaching experience and the attitudes of vocational teachers with five or more years of teaching experience towards students?

It was found by means of a t test for the difference between the means of two independent samples that there was a significant difference between the attitudes of academic teachers with five or more years teaching experience and vocational teachers with five or more years teaching experience.

The mean score of +34.4 for academic teachers and -6.3 for vocational teachers (Table 12) indicated that vocational teachers held attitudes which were significantly more authoritarian than those held by academic teachers with similar teaching experience.

It may be said from the results of this study that it appears that vocational teachers are significantly more authoritarian than academic teachers regardless of years of teaching experience. Even though teachers believe that their attitudes on the authoritarian-democratic continuum change after a few years in the teaching profession, this does not appear to be the case.

This study found that academic teachers with a few years of teaching experience held attitudes similar to those held by academic teachers with many years teaching experience.

Likewise, the study found that vocational teachers with a few years of teaching experience held attitudes similar to those held by vocational teachers with many years teaching experience.

The observation group of three vocational teachers and three academic teachers was used to obtain qualitative support for the more quantitative data generated by the MTAI. The three

vocational teachers demonstrated a more authoritarian approach to teaching than did the three academic teachers.

The mean MTAI score of the three academic teachers in the observation group was +37.3 while the mean MTAI score for the larger group of academic teachers in the study was 34.27. The mean MTAI score of the three vocational teachers in the observation group was -0.5 while the mean MTAI score for the larger group of vocational teachers in the study was -4.1.

It appears then that the data obtained from the observation group was supportive of that generated by the MTAI.

IV CONCLUSIONS

The findings of the study provided support for Bowman⁴⁹ when she found that vocational teachers tended to be more authoritarian than elementary and secondary academic teachers.

This study found that vocational teachers, regardless of years of teaching experience, maintain attitudes towards students which are significantly more authoritarian than those held by academic teachers.

It was hypothesised that the attitudes of vocational teachers in particular might change after a number of years in the teaching profession. This study found that the mean MTAI score for the group of vocational teachers with five years or more teaching experience was higher (indicating a higher degree of authoritarianism) than the mean MTAI score for the group of vocational teachers with less than five years teaching experience. Although the difference was not significant at the 0.05 level of confidence, it indicated that there was no change in attitude in the direction of authoritarian to democratic as the vocational teachers gained more teaching experience.

All six teachers in the observation group believed that their attitudes had changed since they started teaching; four

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Bowman. op. cit.

believed they had become more authoritarian and two believed that they had become more democratic. As these six teachers did not undergo a pre test when they started teaching, it is not possible to say if their attitudes have remained constant since they started teaching. Similarly, although this study found no difference in attitude related to teaching experience, it is not possible to say that each individual teacher maintained the same attitude towards students over a number of years.

During the observation period of this study, it was noted that vocational teachers demonstrated a more authoritarian approach to teaching than did academic teachers.

V IMPLICATIONS

The findings of this study suggest the following implications for administrators in the Manitoba educational system.

1. If, as the literature suggests, teachers who display a more democratic attitude in the classroom have a more positive effect on the teaching-learning situation then an attempt must be made to alter the attitude of many vocational teachers in Manitoba.
2. It is also necessary to modify the attitude of beginning teachers before they enter the classroom. This would indicate that some alterations or additions must be made to existing teacher education programmes at the Community College.
3. As beginning academic teachers have a more democratic approach to teaching than do vocational teachers, it may be that the courses taken by academic teachers during teacher education contain some important component which is missing from the courses taken by vocational teachers during their teacher education programme. On the basis of this study, it is recommended that the teacher education department of Red River Community College cooperate with the Faculty of Education at

the University of Manitoba in an attempt to identify significant differences in their course offerings which might contribute to the difference between the attitudes of their graduates.

It should be noted here that most vocational teachers in Manitoba are graduates of the teacher education programme at Red River Community College.

4. Vocational teachers should be encouraged to extend their university education and read more on current educational theory.
5. Most vocational teachers are probably unaware that they exhibit authoritarian attitudes in the classroom and that this display of authoritarianism may have a deleterious effect on the learning situation in the classroom. This would indicate that carefully planned in service programmes designed to effect attitude change should be high on the list of priorities for schools offering courses in vocational education.
6. The existence of, what may in effect be two camps in the one school, authoritarian vocational teachers and more democratic academic teachers may give rise to some disharmony which may manifest itself in a number of ways all of which maybe detrimental to the learning situation.

VI RECOMMENDATIONS FOR FURTHER RESEARCH

The findings of this investigation point to several additional avenues of enquiry.

1. It appears that teachers believe their attitudes change over several years in the teaching profession. The design of this study did not allow for a long term follow up of individual teachers. Such a follow up would indicate if an individual teacher's attitude changes from the time he first begins teaching and, if so, in which direction that change might take. In addition to identifying any change in attitude which may take place, this type of follow up study would indicate

when such a change in attitude did take place and allow the researcher to identify the reason(s) for the change.

2. Research dealing with the effects of different authoritarian-democratic classroom techniques on student achievement would provide valuable information for school administrators.
3. Research designed to indicate how students perceive a teacher's attitude would seem appropriate. It may be that a student's perception of teacher attitudes may differ from the school administrator's perception.
4. Research is necessary to determine if vocational students tend to require a more authoritarian teacher than do academic students for similar achievement.
5. Research into the basic differences between academic teacher education and vocational teacher education might help to identify some of the reasons for the differences in attitudes between the two groups of beginning teachers.

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APPENDIX A

ASSUMPTIONS AND GENERALIZATIONS REGARDING CONDITIONS
FOUND IN AUTHORITARIAN AND DEMOCRATIC CLASSROOMS

APPENDIX A

The live classroom observation in this study was conducted over a period of two months with regular two period observations each week.

Certain assumptions and generalizations were made (see below) regarding classroom conditions. An attempt was made to classify these conditions and events, as they occurred, as generally existing in either democratic classrooms or authoritarian classrooms.

The democratic teacher will;

1. Show enthusiasm in the classroom. This includes movement, gestures, and voice inflection.
2. Use students' ideas including acknowledging the students' ideas and modifying the ideas.
3. Use praise and stimulate students.
4. Blend in with students.
5. Control students unobtrusively.
6. Allow a fair degree of student talk.
7. Encourage student initiation and participation.

The authoritarian teacher will;

1. Talk a lot.
2. Dominate the classroom

3. Give many directions.
4. Lecture rather than discuss.
5. Not encourage student initiation.
6. Rarely praise students.
7. Not allow student talk.
8. Use criticism.
9. Demonstrate rejecting behaviour.
10. Be rigid and inflexible.

Authoritarian Classrooms will most often demon- strate the following		Democratic classrooms will most often demon- strate the following	
Action	Reaction	Action	Reaction
Student late.	Door locked or mild to extreme re- buke. Stu- dent sent to office.	Student late.	Often ignored, or acknow- ledgment that student has arrived. Per- haps comment as to the ef- fect this has on class.
Student talks back to teacher.	Teacher on defensive perhaps threatens student with severe puni- shment.	Student talks back to teacher.	Teacher dis- cusses stud- ent's problem or promises to do so later.
Teacher talks to class.	Student silence.	Teacher talks to class.	General student attentiveness, relaxed atmos- phere.
Teacher enters class.	Immediate awareness definite re- duction in noise level. Students await in- structions.	Teacher enters class.	General aware- ness atmosphere relaxed. Little reduction in noise level.

Authoritarian Classrooms
will most often demon-
strate the following

Teacher will lecture regularly, ask directed questions to specific students. Require precise answers, not require class discussion of question or answers.

Little group work, teacher not prepared to accept partial answer and encourage students to complete answer.

General atmosphere rather restrained, students not normally encouraged to institute discussion. Students rarely talk when teacher is talking and then only in whispers. Teacher rarely smiles and is generally serious in nature.

Democratic Classrooms
will most often demon-
strate the following

Teacher encourages free exchange of ideas. Discussion of question and answer; teacher is prepared to accept partial answer and encourage students to re-think question and ammended answer.

General atmosphere free, relaxed. Students discuss together often. Talk in low tones often when teacher is talking.

Students smile a lot, joke with teacher. Students sometimes call teacher by first name.

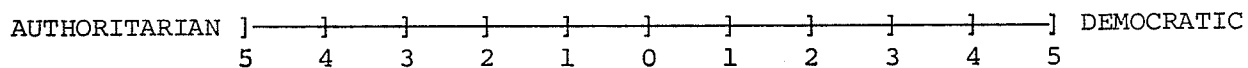
Teacher smiles a lot, sometimes makes jokes.

APPENDIX B

A TEACHER'S ESTIMATION OF HIS POSITION ON THE CONTINUUM

APPENDIX B

When a teacher in the observation group was first interviewed he was asked to indicate on the scale shown below where he thought he fitted on the authoritarian-democratic continuum when he started teaching.



The teacher was then asked to indicate on the same scale where he thought he was on the authoritarian -democratic continuum at the time of the observation period.

If the teacher believed that he had changed position on the continuum he was asked the following series of questions in an attempt to provide information on the reason for the change in position.

The teacher was asked to tick off any of the statements which he felt might be applicable and add any further comments at the end.

1. Became more comfortable with students.
2. Became more comfortable with subject matter.
3. Learned through experience how to control students.
4. University courses helped change my attitude.
5. Colleagues helped change my attitude
6. In-service workshops helped change my attitude.
7. Confidence-lack of confidence in the school administration helped change my attitude.
8. Other. Please list.

The teacher was observed in the classroom and the observer, at the end of the two month observation period, made a subjective judgement based on the data obtained during the observation period and placed each teacher on the authoritarian-democratic continuum.

A comparison was made of the teacher's position on the continuum as indicated by the MTAI, the observers subjective judgment, and the teacher's own estimate of his position.

APPENDIX C

PERCENTILE RANK EQUIVALENTS FOR RAW SCORES ON THE MINNESOTA
TEACHER ATTITUDE INVENTORY

TABLE 2
Percentile Rank Equivalents for Raw Scores on the Minnesota Teacher Attitude Inventory, Form A
EXPERIENCED TEACHERS

Percentile Rank	Rural Teachers	ELEMENTARY TEACHERS						SECONDARY TEACHERS						Percentile Rank
		Systems with fewer than 21 teachers		Systems with 21 or more teachers		Academic			Nonacademic					
		2 years training	4 years training	2 years training	4 years training	4 years training	5 years training	5 years training	4 years training	5 years training				
99	112	110	107	108	114	103	112	98	98	99				
95	91	88	98	98	103	87	100	81	84	95				
90	76	76	90	87	100	81	90	67	74	90				
80	62	64	72	74	88	67	75	47	64	80				
75	57	56	67	69	82	57	69	40	56	75				
70	51	54	62	63	79	50	63	34	49	70				
60	42	44	51	52	70	34	53	21	41	60				
50	32	34	41	43	60	23	45	10	33	50				
40	23	19	29	33	49	13	35	2	29	40				
30	11	7	17	22	42	1	24	-12	8	30				
25	7	-3	12	16	36	-5	16	-20	-4	25				
20	-2	-7	4	7	22	-12	9	-29	-8	20				
10	-23	-21	-26	-9	7	-29	-12	-48	-20	10				
5	-38	-35	-30	-27	-18	-43	-26	-64	-34	5				
1	-64	-67	-39	-48	-50	-58	-65	-85	-50	1				
N	332	118	102	249	247	264	218	98	70	N				
Mean	29.7	29.2	37.0	40.1	55.1	24.7	40.8	9.7	28.9	Mean				
SD	38.1	38.6	39.4	37.2	36.7	40.6	39.5	42.7	36.5	SD				

APPENDIX D

THE MINNESOTA TEACHER ATTITUDE INVENTORY

DO NOT OPEN UNTIL TOLD TO DO SO

MINNESOTA TEACHER ATTITUDE INVENTORY

Form A

WALTER W. COOK
University of Minnesota

CARROLL H. LEEDS
Furman University

ROBERT CALLIS
University of Missouri

DIRECTIONS

This inventory consists of 150 statements designed to sample opinions about teacher-pupil relations. There is considerable disagreement as to what these relations should be; therefore, there are no right or wrong answers. What is wanted is your own individual feeling about the statements. Read each statement and decide how YOU feel about it. Then mark your answer on the space provided on the answer sheet. Do not make any marks on this booklet.

- If you strongly agree, blacken space under "SA"
- If you agree, blacken space under "A"
- If you are undecided or uncertain, blacken space under "U"
- If you disagree, blacken space under "D"
- If you strongly disagree, blacken space under "SD"

SA	A	U	D	SD
█	⋮	⋮	⋮	⋮
SA	A	U	D	SD
⋮	█	⋮	⋮	⋮
SA	A	U	D	SD
⋮	⋮	█	⋮	⋮
SA	A	U	D	SD
⋮	⋮	⋮	█	⋮
SA	A	U	D	SD
⋮	⋮	⋮	⋮	█

Think in terms of the general situation rather than specific ones. There is no time limit, but work as rapidly as you can. PLEASE RESPOND TO EVERY ITEM.

The inventory contained in this booklet has been designed for use with answer forms published or authorized by The Psychological Corporation. If other answer forms are used, The Psychological Corporation takes no responsibility for the meaningfulness of scores.

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SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

1. Most children are obedient.
2. Pupils who "act smart" probably have too high an opinion of themselves.
3. Minor disciplinary situations should sometimes be turned into jokes.
4. Shyness is preferable to boldness.
5. Teaching never gets monotonous.
6. Most pupils don't appreciate what a teacher does for them.
7. If the teacher laughs with the pupils in amusing classroom situations, the class tends to get out of control.
8. A child's companionships can be too carefully supervised.
9. A child should be encouraged to keep his likes and dislikes to himself.
10. It sometimes does a child good to be criticized in the presence of other pupils.
11. Unquestioning obedience in a child is not desirable.
12. Pupils should be required to do more studying at home.
13. The first lesson a child needs to learn is to obey the teacher without hesitation.
14. Young people are difficult to understand these days.
15. There is too great an emphasis upon "keeping order" in the classroom.
16. A pupil's failure is seldom the fault of the teacher.
17. There are times when a teacher cannot be blamed for losing patience with a pupil.
18. A teacher should never discuss sex problems with the pupils.
19. Pupils have it too easy in the modern school.
20. A teacher should not be expected to burden himself with a pupil's problems.
21. Pupils expect too much help from the teacher in getting their lessons.
22. A teacher should not be expected to sacrifice an evening of recreation in order to visit a child's home.
23. Most pupils do not make an adequate effort to prepare their lessons.
24. Too many children nowadays are allowed to have their own way.
25. Children's wants are just as important as those of an adult.
26. The teacher is usually to blame when pupils fail to follow directions.
27. A child should be taught to obey an adult without question.
28. The boastful child is usually over-confident of his ability.
29. Children have a natural tendency to be unruly.
30. A teacher cannot place much faith in the statements of pupils.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree.

-
31. Some children ask too many questions.
32. A pupil should not be required to stand when reciting.
33. The teacher should not be expected to manage a child if the latter's parents are unable to do so.
34. A teacher should never acknowledge his ignorance of a topic in the presence of his pupils.
35. Discipline in the modern school is not as strict as it should be.
36. Most pupils lack productive imagination.
37. Standards of work should vary with the pupil.
38. The majority of children take their responsibilities seriously.
39. To maintain good discipline in the classroom a teacher needs to be "hard-boiled."
40. Success is more motivating than failure.
41. Imaginative tales demand the same punishment as lying.
42. Every pupil in the sixth grade should have sixth grade reading ability.
43. A good motivating device is the critical comparison of a pupil's work with that of other pupils.
44. It is better for a child to be bashful than to be "boy or girl crazy."
45. Course grades should never be lowered as punishment.
46. More "old-fashioned whippings" are needed today.
47. The child must learn that "teacher knows best."
48. Increased freedom in the classroom creates confusion.
49. A teacher should not be expected to be sympathetic toward truants.
50. Teachers should exercise more authority over their pupils than they do.
51. Discipline problems are the teacher's greatest worry.
52. The low achiever probably is not working hard enough and applying himself.
53. There is too much emphasis on grading.
54. Most children lack common courtesy toward adults.
55. Aggressive children are the greatest problems.
56. At times it is necessary that the whole class suffer when the teacher is unable to identify the culprit.
57. Many teachers are not severe enough in their dealings with pupils.
58. Children "should be seen and not heard."
59. A teacher should always have at least a few failures.
60. It is easier to correct discipline problems than it is to prevent them.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

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| 61. Children are usually too sociable in the classroom. | 76. There is too much leniency today in the handling of children. |
| 62. Most pupils are resourceful when left on their own. | 77. Difficult disciplinary problems are seldom the fault of the teacher. |
| 63. Too much nonsense goes on in many classrooms these days. | 78. The whims and impulsive desires of children are usually worthy of attention. |
| 64. The school is often to blame in cases of truancy. | 79. Children usually have a hard time following instructions. |
| 65. Children are too carefree. | 80. Children nowadays are allowed too much freedom in school. |
| 66. Pupils who fail to prepare their lessons daily should be kept after school to make this preparation. | 81. All children should start to read by the age of seven. |
| 67. Pupils who are foreigners usually make the teacher's task more unpleasant. | 82. Universal promotion of pupils lowers achievement standards. |
| 68. Most children would like to use good English. | 83. Children are unable to reason adequately. |
| 69. Assigning additional school work is often an effective means of punishment. | 84. A teacher should not tolerate use of slang expressions by his pupils. |
| 70. Dishonesty as found in cheating is probably one of the most serious of moral offenses. | 85. The child who misbehaves should be made to feel guilty and ashamed of himself. |
| 71. Children should be allowed more freedom in their execution of learning activities. | 86. If a child wants to speak or to leave his seat during the class period, he should always get permission from the teacher. |
| 72. Pupils must learn to respect teachers if for no other reason than that they are teachers. | 87. Pupils should not respect teachers any more than any other adults. |
| 73. Children need not always understand the reasons for social conduct. | 88. Throwing of chalk and erasers should always demand severe punishment. |
| 74. Pupils usually are not qualified to select their own topics for themes and reports. | 89. Teachers who are liked best probably have a better understanding of their pupils. |
| 75. No child should rebel against authority. | 90. Most pupils try to make things easier for the teacher. |

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

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91. Most teachers do not give sufficient explanation in their teaching.
92. There are too many activities lacking in academic respectability that are being introduced into the curriculum of the modern school.
93. Children should be given more freedom in the classroom than they usually get.
94. Most pupils are unnecessarily thoughtless relative to the teacher's wishes.
95. Children should not expect talking privileges when adults wish to speak.
96. Pupils are usually slow to "catch on" to new material.
97. Teachers are responsible for knowing the home conditions of every one of their pupils.
98. Pupils can be very boring at times.
99. Children have no business asking questions about sex.
100. Children must be told exactly what to do and how to do it.
101. Most pupils are considerate of their teachers.
102. Whispering should not be tolerated.
103. Shy pupils especially should be required to stand when reciting.
104. Teachers should consider problems of conduct more seriously than they do.
105. A teacher should never leave the class to its own management.
106. A teacher should not be expected to do more work than he is paid for.
107. There is nothing that can be more irritating than some pupils.
108. "Lack of application" is probably one of the most frequent causes for failure.
109. Young people nowadays are too frivolous.
110. As a rule teachers are too lenient with their pupils.
111. Slow pupils certainly try one's patience.
112. Grading is of value because of the competition element.
113. Pupils like to annoy the teacher.
114. Children usually will not think for themselves.
115. Classroom rules and regulations must be considered inviolable.
116. Most pupils have too easy a time of it and do not learn to do real work.
117. Children are so likeable that their shortcomings can usually be overlooked.
118. A pupil found writing obscene notes should be severely punished.
119. A teacher seldom finds children really enjoyable.
120. There is usually one best way to do school work which all pupils should follow.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

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- | | |
|--|---|
| 121. It isn't practicable to base school work upon children's interests. | 136. A pupil should always be fully aware of what is expected of him. |
| 122. It is difficult to understand why some children want to come to school so early in the morning before opening time. | 137. There is too much intermingling of the sexes in extra-curricular activities. |
| 123. Children that cannot meet the school standards should be dropped. | 138. The child who stutters should be given the opportunity to recite oftener. |
| 124. Children are usually too inquisitive. | 139. The teacher should disregard the complaints of the child who constantly talks about imaginary illnesses. |
| 125. It is sometimes necessary to break promises made to children. | 140. Teachers probably over-emphasize the seriousness of such pupil behavior as the writing of obscene notes. |
| 126. Children today are given too much freedom. | 141. Teachers should not expect pupils to like them. |
| 127. One should be able to get along with almost any child. | 142. Children act more civilized than do many adults. |
| 128. Children are not mature enough to make their own decisions. | 143. Aggressive children require the most attention. |
| 129. A child who bites his nails needs to be shamed. | 144. Teachers can be in the wrong as well as pupils. |
| 130. Children will think for themselves if permitted. | 145. Young people today are just as good as those of the past generation. |
| 131. There is no excuse for the extreme sensitivity of some children. | 146. Keeping discipline is not the problem that many teachers claim it to be. |
| 132. Children just cannot be trusted. | 147. A pupil has the right to disagree openly with his teachers. |
| 133. Children should be given reasons for the restrictions placed upon them. | 148. Most pupil misbehavior is done to annoy the teacher. |
| 134. Most pupils are not interested in learning. | 149. One should not expect pupils to enjoy school. |
| 135. It is usually the uninteresting and difficult subjects that will do the pupil the most good. | 150. In pupil appraisal effort should not be distinguished from scholarship. |