AN INVESTIGATION OF THE INFLUENCE OF PARTICIPATIVE DECISION-MAKING ON PRODUCTIVITY AND JOB SATISFACTION OF HIGH SCHOOL TEACHERS

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AN INVESTIGATION OF THE INFLUENCE OF PARTICIPATIVE DECISION-MAKING ON PRODUCTIVITY AND JOB SATISFACTION OF HIGH SCHOOL TEACHERS

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ABSTRACT

The major purpose of this study was to determine if participation in educational decision-making affected teacher productivity and teacher satisfaction. The data collection took place in April and May, 1976, using a six part questionnaire. Twenty-five high schools were randomly selected along the east coast of Newfoundland. This represented a total teacher sample of three hundred and fifty-eight. In all, two hundred and eighty, or 78.2 percent, responded.

The data analyses consisted of factor analyses and Pearson product-moment correlations. The two hypotheses tested were:

1. There is an inverse relationship between friction point rating (FPR) identified by teachers and their Job Satisfaction.
2. An inverse relationship exists between friction point rating (FPR) and Teacher Productivity.

The results of the bivariate analyses were negative; therefore, both hypotheses were rejected. However, the study revealed four major findings. They may be summarized as follows: (1) Three friction point areas emerged: classroom management, curriculum, and staff hiring and evaluation. (2) A teacher's effort is significantly related to his intrinsic commitment to teaching. (3) There was a significant relationship between the friction point rating in the area of curriculum and a person's satisfaction. Finally, (4) there was a significant relationship between a person's self concept of his teaching ability and the friction point area classroom management.

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CHAPTER 1

INTRODUCTION TO PDM THEORY

Participation in organizational decision-making, especially for employees in lower echelons of the organization, is a relatively recent phenomenon associated with management's endeavours to increase productivity. Organizations, from conception, have striven to harness human energy more effectively in an effort to realize their goals. From the days of Frederick Taylor and the scientific management approach, organizations have attempted to "inspire" employees, by one means or another, to increase productivity. The "carrot and stick" approaches were familiar techniques utilized by the proponents of scientific management. The Human Relations movement of the mid-1920's advocated that the individuality of the worker was important. One aspect of what they suggested was that if an employee was permitted participation in organizational decision-making, especially in decisions which directly affected him, then this would have a positive influence on individual and organizational performance.

The underlying concern of management has always been for increased productivity. However, this can be accomplished only by increasing the efficiency of the organization. According to Barnard (1938) an efficient organization is one in which the employees are also happy and satisfied. Recognizing the need for efficiency and taking into account Barnard's postulate, it is of little wonder that social scientists and students of

organizations have devoted so much time and effort conducting research in this area.

The actual research has been based on a number of theories, one of which was advanced by McGregor (1957). He refers to his theory as Theory X (management's conventional approach to productivity) and Theory Y (the new theory of management). Theory X can be stated broadly in terms of three propositions:

1. Management is responsible for organizing the elements of productive enterprise; money, materials, equipment, and people in the interest of increased economic rewards.
2. With respect to people, this is a process of directing their efforts, motivating them, controlling their action, and modifying their behaviour to fit the needs of the organization.
3. Without this active intervention by management, people would be passive and resistant to organizational needs. They must therefore be persuaded, rewarded, punished, and controlled; their action must be directed. This is management's task.

(McGregor, 1957: 22)

Underlying these propositions are the beliefs that the average man by nature is: indolent, lacks ambition, dislikes responsibility, is indifferent to organizational needs, and is gullible. Hence, the conventional organization structures and managerial policies, practices and programs reflect these assumptions. McGregor points out that man is approximately what management perceives him to be, but it is not a consequence of man's inherent nature. Rather it derives from the structure of industrial organizations, of management's philosophy, policy and practice. The conventional approach to Theory X, according to McGregor, is based on mistaken notions concerning the inherent nature of man.

Another way to indicate the inadequacy of Theory X would be to consider Maslow's hypothetical hierarchy of needs. Theory X operates

strictly on satisfying the lower physiological and safety needs by providing money to purchase shelter, food, clothes, and a feeling of job security. If man reacts as Maslow suggests once these lower needs are satisfied, then they are no longer important as motivators. The emphasis then shifts to social needs (to belong, for acceptance, for friendship), ego needs (self-esteem, achievement, competence) and finally self-fulfillment needs (self-development, creativity). These are especially important when we attempt to explain motivation. Theory X does not take these needs into account; therefore, people are deprived. They behave then as we might predict: with indolence, passivity, resistance to change, and lack of responsibility.

Due to the difficulties illustrated in Theory X, McGregor suggests that a new management theory is needed; this he terms Theory Y. It can be explained in four propositions:

1. Management is responsible for organizing the elements of productive enterprise; money, materials, equipment and people in the interests of economic ends.
2. People are not by nature passive or resistant to organizational needs. They have become so as a result of experience in organizations.
3. The motivation, the potential for development, the capacity for assuming responsibility, and the readiness to direct behaviour towards organizational goals are all present in people. It is the responsibility of management to create a climate where these human characteristics can emerge.
4. The essential task of management is to arrange organizational conditions and methods of operation so people can achieve their own goals best by directing their own efforts towards organizational objectives. To accomplish this it is essential that employees experience participation in organizational decision making.

(McGregor, 1957: 27)

This is a process primarily of: creating opportunity, releasing potential, removing obstacles, encouraging growth, and providing guidance.

Some innovative ideas which are entirely consistent with Theory Y are: decentralization and delegation of authority, creating challenging job opportunities, giving employees a voice in decisions that affect them and providing for their social, ego, and self-fulfillment needs. In summary we can state that the difference between Theory X and Y is that Theory X places exclusive reliance upon external control of human behaviour and by implication the locus of decision-making lies at the top of the organizations, while Theory Y relies heavily on self-control and self-direction and once again by implication extends decision-making to lower levels of the organization.

A second theory similar to McGregor's Theory Y has been put forth by Likert (1961, 1967). It recognizes the power of groups and tries to make constructive use of their potential strength for developing and mobilizing human resources. Only by having what Likert terms "highly effective groups" can an organization make the greatest use of humah capacity.

Likert explains the workings and nature of the more effective group by listing its properties and performance characteristics. They can be summarized thus:

The members:

A. are skilled in all the various leadership roles required for interaction;

B. have developed a well established, relaxed working relationship among its members;

C. are satisfied with the values and goals of the organization;

D. perform a linking and integrating function with other groups;

E. are highly motivated, in part, from the basic motive to achieve and maintain a sense of personal worth and importance;

F. interact continually in a supportive atmosphere;

G. have ego forces deriving from the desire to achieve and maintain a sense of personal worth and importance which is channelled into constructive efforts;

H. are eager to help each other and mutual help is characteristic;

I. attach high importance to new, creative approaches and solutions to their problems and the problems of the organization;

J. feel secure in making decisions because they are provided with a solid basis for their decisions.

As indicated, the group performs many functions. They can be further sub-divided into two broad categories:

1. Group task roles. They are related to the task which the group is deciding to undertake or has undertaken. They are directly concerned with group effort in selection and definition of a common problem and in the solution to that problem. Inherent in the workings of the group is participative decision-making. That is, employees are involved in many of the decisions of the organization, particularly those which directly affect them.

2. Group building and maintenance roles. These concern the functioning of the group as a group. They are concerned with the emotional life of the group. More specifically, they deal with the group's attractiveness to its members, its warmth and supportiveness, its motivations and capacity to handle intellectual problems without bias and emotions, and its capacity to function as a mature group (Likert, 1961: 170).

By having more effective groups within the organization, management may be assured of greater effort being expended by its employees. Management, by encouraging the group model, provides the necessary opportunities for its employees to have rewarding and fulfilling jobs. The

eventual result of this situation is hopefully a more productive work force whose goals and values are concurrent with those of the organization. This is accomplished through the substantial influence members exert on the group's goals and values. As a consequence, these goals reflect the long-range as well as the short-range needs, desires, and values of the organization's members (Likert, 1961).

A third management system is the Scanlon Plan, named after its founder Joseph Scanlon. It is very similar to McGregor's Theory Y and Likert's Interaction-Influence Theory. It advocates broad decentralization and genuine delegation of authority throughout the organization. This participation in organizational decision-making should result in better decisions. As people tend to grow and develop more rapidly, "they are motivated more effectively" (Lesieur, 1961: 12).

There is one fundamental difference in this plan as compared with the previous two. The employees receive a monetary reward in the form of a bonus for tangible labour savings. The philosophy of the plan is that labour should profit from labour savings (for example, a bonus), while the company gains from a better use of its assets (for example, lower unit costs). It should also be pointed out that labour collectively benefits. That is, the bonus is not paid to a section of employees but rather to all, a basic tenet of the Scanlon system.

If we were to identify the one underlying principle of the Scanlon Plan it would have to be allowing employees real participation, as opposed to the more superficial kind which some executives may employ. This consists of finding a means by which to reward labour for an increase in productivity and then in building around this formula a working relationship between management and labour that enables them to become a

team. "Once this concept of a team has been established, it is found that labour's prime interest, just like that of management, becomes productivity"(Lesieur, 1961: 21).

In each of the theories, the fundamental argument is that participation in decision-making (PDM) leads to greater productivity. The basic premise appears to be that PDM leads to enhanced "satisfaction," which in turn produces greater productivity because employees are motivated to work harder or more carefully. Therefore, instead of there being a simple direct relationship as illustrated below:

PDM ----------> Productivity

Direct relationship of PDM and productivity

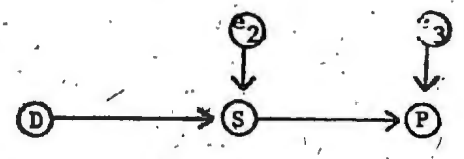
Figure 1

it appears more likely that PDM produces changes in satisfaction, which in turn affects productivity. Thus, it is necessary to take into account the intervening influence of satisfaction. In the more complex relationship, in which satisfaction is shown to mediate the PDM-productivity relationship, it is unlikely that <u>all</u> the effects of PDM on productivity will be indirect. Rather, the indirect effects of PDM on productivity via satisfaction are likely to supplement the direct PDM-productivity effect as illustrated in Figure 2.

The PDM-productivity relationship with the influence of satisfaction

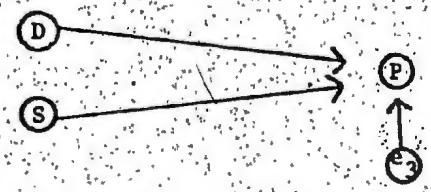
Figure 2

Whether the indirect effects will be greater than the direct effects is, as yet, an untested hypothesis, the solution of which requires the examination of a set of relationships including the following:



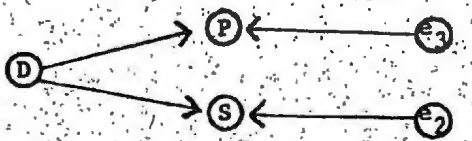
Direct relationship of PDM to satisfaction which in turn effects productivity

Figure 3



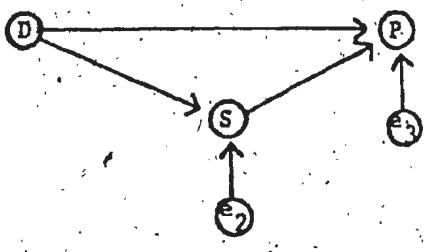
The direct effects of PDM and satisfaction on productivity

Figure 4



The direct effect of PDM on productivity and satisfaction

Figure 5



The relationship of PDM to productivity
taking into account the effects
of satisfaction

Figure 6

NOTE: Where D = PDM; S = Satisfaction; P = Productivity
and e_2 and e_3 are the residual terms

Support for the hypothesized relationships depicted in Figure 6 would necessitate rejection of the alternative possibilities depicted in Figures 3, 4 and 5. The diagrams follow the conventions of multivariate analysis where variables are ordered from left to right in order to illustrate the recursive flow of effect (Geer, 1971).

The relationships as diagrammed in the preceding figures are clear. However, it is the findings which are ambiguous because the relationships are not invariable. In practice the operation of the model seems to be governed by a host of situational factors or conditions which so far remain obscure. A major purpose of this study is to test whether the theoretical relationships operate as hypothesized in an educational setting. That is, whether the conditions governing the PDM/satisfaction/productivity relationships are operative insofar as the productivity of high school teachers are concerned.

SIGNIFICANCE OF THE STUDY

The need for this study and similar ones becomes evident when we acknowledge the paucity of data pertaining to Newfoundland teachers in

reference to PDM. In the past few years there has been some relevant data gathered on the Newfoundland elementary teachers: Inkpen (1974), Ponder (1974), and Ponder and Bulcock (1975). To date, there have been few data collected on the Newfoundland high school teacher. This study will provide much needed information for administrators. Hopefully, it will identify areas where teacher participation will have the most influence in terms of job satisfaction and productivity. Until such answers are available we can only content ourselves with marginal success in planning for a more productive and satisfied work force.

STATEMENT OF THE PROBLEM

The purpose of this study was to determine the relationship between participation in educational decision-making, teacher productivity and teacher job satisfaction as it relates to Newfoundland high school teachers. It will also include an examination of: teachers' self-concept of teaching ability (Scta), sex, teaching experience, and other demographic factors as control variables. In other words, the impact of PDM will be examined after taking full account of potentially mediating variables.

LIMITATIONS OF THE STUDY

Only teachers from twenty-five randomly selected schools along the east coast of Newfoundland were included in this study. Thus the generalizability of the findings must be undertaken with extreme caution. Further, since the independent variables selected represent a choice from among a host of possibly important independent variables, the potential for having ignored critical factors must also be entertained.

CHAPTER 2

REVIEW OF THE LITERATURE AND THEORETICAL FRAMEWORK

STUDIES INVOLVING PDM AND PRODUCTIVITY

The research conducted into the area of PDM and its relationship to productivity has resulted in the generation of a substantial amount of data. Lowin (1968), in an effort to systematize the findings, used three categories: experimental non-organizational research, observational studies in organizational settings, and experimental studies in organizational settings. He further subdivides the studies in each category under the headings "positive findings" and "problematic findings." Positive findings would include cases where the occurrence of, or increase in, decision-making responsibility was coupled with an increase in productivity and/or other similar indices of organizational performance. Problematic findings would include those cases in which the occurrence of, or increase in, decision-making responsibility was coupled with either a decline in some measure of organizational or individual performance or no recorded difference (Ponder, 1973).

The author, in an attempt to illustrate the mixed pattern of results in PDM research, has retained Lowin's taxonomy. The outcomes are summarized in Figures 7, 8 and 9.

The results, in each of the areas, reveal an almost equal number of positive and problematic findings, suggesting at least two alterna-

Positive Findings	Problematic Findings
Khan & Tannenbaum (1957)	Argyle, Gardner & Coifi (1958)
Meltzer (1956)	Fleishman & Peters (1962)
Tannenbaum & Georgeopoulos (1957)	Halpin (1954)
Wickert (1951)	Stryker (1956)

Figure 7

Observational studies in organizational settings

Positive Findings	Problematic Findings
Day & Hamblin (1964)	Back (1961)
Hare (1953)	Bass & Leavitt (1963)
Levine & Butler (1952)	Bennett (1955)
Lewin (1947)	Calvin, Hoffman & Harden (1957)
Preston & Heintz (1949)	Haythorn (1956)
Radke & Klisurich (1947)	McCurdy & Eber (1953)
	Misumi (1959)
	Sales (1966)
	Shaw (1955)
	Simmons (1954)
	Torrance & Mason (1958)

Figure 8

Experimental non-organizational research

[illegible]tive Findings	Problematic Findings
Bavelas & Strauss (1961)	French, Israel & Aas (1960)
Coch & French (1948)	French, Kay & Meyer (1966)
Fleishman (1965)	Morse & Reimer (1951)
Kuriloff (1963)	Tannenbaum & Allport (1956)
Lawrence & Smith (1955)	
Rice (1953)	

Figure 9

Experimental studies in organization

tives. First, there is essentially no relationship between PDM and productivity, indicating those studies with positive outcomes occur randomly. Secondly, the relationship may be a selective one, influenced as much by a potential host of other independent variables as the central one--participation. Ponder (1973) refers to two problems in an attempt to explain the contradictory findings. The lack of any semblance of uniformity on which the studies could be somehow equated, for example the innumerable different measures of productivity utilized. Secondly, he stresses the apparent complexity of the relationship between the variables.

> In view of the differences in structurs, goal, employee populations, levels and kinds of decisions, levels of the organizations involved, task and end result variables, attempting to compare the results of one study with another may be a highly presumptive undertaking. To expect to find some generalizable effect across a variety of studies may be somewhat naive.
>
> (Ponder, 1973: 60)

A sample of the diversity of the experimental settings is indicated in Figure 10. In each study the researcher attempts to explain productivity in terms of PDM, irrespective of the setting or population.

Study	Setting
Levine & Butler (1952)	Laboratory setting
Bavelas & Strauss (1961)	Toy factory
Fleishman (1965)	Dress factory
Sales (1966)	Industrial assembly line in laboratory
Tannenbaum & Georgeopoulos (1957)	Manufacturing plant
Lewin (1947)	Housewives
Halpin (1954)	Airplane commanders

Figure 10

Study settings

Belasco and Alutto (1972) stress the variability in what writers choose to call "participation."

> These authors appear to implicitly assume a positive linear relationship between increased participation and such desirable organizational outcomes as willingness to change, interpersonal trust, productivity, job satisfaction, and increased organizational control. Clearly, however, participation in organizational decision-making is a complex phenomenon. Participation itself can range from the mere presentation of an opinion, where the final authority rests elsewhere, to membership in a group which exercises final control over an issue giving varying shades of the participation phenomenon. It has been suggested that not all forms of participation will produce identical or even similar organizational outcomes.
>
> (Belasco and Alutto, 1972: 49)

Other researchers have also discussed the uncertain outcomes of studies in PDM. Stryker (1956) points out that the decision to begin a participative experiment may be essentially non-participative. That is, management may decide to involve employees without first determining if they desire to be involved. Consequently, the employees view the experiment as another example of management exercising its authority, and may resent it. Under these conditions there is every likelihood that the

experiment will not be successful.

Lowin (1968) suggests that PDM cannot be expected to bring about increased productivity under all circumstances. He suggests that feelings, beliefs, predispositions and behaviours of each of the parties may all be influential factors. The complexity of the PDM dilemma is further complicated by the findings of Dill (1944) that many subordinates may not desire to participate in decision making.

In summary, the studies reviewed demonstrate the complexity of the area under investigation. As illustrated in Figures 7, 8 and 9, the studies divided almost evenly into positive and problematic findings, supporting this point of view. In the following section, literature pertaining specifically to PDM and teacher productivity is reviewed. Once again it is evident that the findings are not consistent, suggesting rather intricate relationships.

STUDIES INVESTIGATING THE RELATIONSHIP OF TEACHER PDM AND PRODUCTIVITY

In the previous section the studies cited illustrated a number of positive and problematic findings related to research in PDM and productivity. In the research conducted into PDM and teacher productivity a twofold problem becomes evident. First, there is a relative scarcity of data. Second, there appears to be a lack of agreement among researchers on what exactly constitutes educational productivity. As in other organizations, productivity in education has been only operationally defined and where definitions have been advanced, they have not been universally accepted. This leaves the researcher in the precarious position of either accepting a definition which in many instances repre-

sents only one aspect of organizational productivity (e.g. student performance on exams) or developing one of his own.

MacKay (1964), in an effort to discern whether organizational structure was related to teacher performance, used ninth grade examination results as a measure of pupil achievement and teacher performance. The results indicated that teachers in a hierarchical system, where the locus of decision-making lay in central office, did not perform at the same capacity as those in more decentralized systems. Conversely, where decision-making was decentralized, pupils performed better on test results, indicating greater teacher productivity.

In another study Tomekovic (1962) used sixth grade school pupils to determine if productivity was affected by a group's knowledge of its task. The task involved the addition of columns composed of trinomial numbers. The results showed that the group which received an explanation of its work, had discussed the explanation and instructions, and then made its own decisions, completed a significantly greater number of examples when compared with a group which had received only instructions. At the same time, no significant difference between the groups as to the accuracy of their work was recorded. The researchers concluded that because the students had exercised some control over their environment, this acted as a motivational force, thus increasing one aspect of productivity.

Johansen (1967) conducted an investigation of the relationship between teachers' perception of their involvement in curriculum decision-making at the local level and their subsequent implementation of the resultant curricular decisions. Analysis of the data obtained from the returned questionnaires revealed the following relationship:

> Individual teacher participation in curriculum development activities in and of itself increases the likelihood of curriculum implementation;
>
> The perception of teachers that they are influential in the curriculum decision-making process increases the likelihood of curriculum implementation;
>
> The perception by teachers that the hierarchical type of authority is influential in the curriculum decision-making process decreases the likelihood of curriculum implementation.
>
> (Johansen, 1967: 82)

Miklos (1970) described a study conducted in thirty-one Wisconsin school systems to determine the extent that teacher participation in curriculum decision-making had on teacher performance. The study demonstrated that increased teacher involvement in curriculum planning and development leads to higher teacher productivity, greater implementation of programs and more provisions for change in instructional content.

Blumberg, Wayson, and Weber (1969) described the efforts of an elementary school principal to change the policy decision-making process in his school from a traditional hierarchical model (principal making the decisions) to a participative model (the faculty making the decisions). In summarizing, the researchers concluded that the administrator-teacher cabinet is a viable one; if teachers are given the opportunity to take part in meaningful organizational work, not trivia, they will do so and will be productive (Blumberg, Wayson, and Weber, 1969).

In summary, the research reveals a relationship between PDM and teacher productivity although it is by no means clear. One of the major reasons accounting for this could be the general lack of agreement over "What is productivity?" and "How is the productivity of teachers measured?" This general lack of agreement is further complicated by the overall complexity of the PDM phenomenon as suggested by Ponder (1973) and discussed in an earlier section.

LITERATURE PERTAINING TO JOB SATISFACTION

Probably the first formal recognition of job satisfaction as a separate area of research worthy of investigation in its own right was by Kornhauser (1930). He stated:

> Vocational selection procedures, training programs and rest periods are evaluated in terms of efficiency. Why not also by reference to satisfaction? Of course the two are not independent; often a study of morale is highly significant in its bearing on output. But even where it is not, we may be interested in the individual and social effects of the work.
> (Kornhauser, 1930: 348).

Later, Kornhauser (1965) conducted another study that stressed the importance of job satisfaction to a person's entire life adjustment. In fact the major conclusion was, "mental health varies consistently with the level of jobs the men hold." The job level of the various individuals showed a close relationship to the mental health index, and, in addition, the effect was moderated for better or worse by some individual and situational variables, but the general findings emphasize the importance of job satisfaction to life adjustment.

In general, Kornhauser's results are supported by a number of studies showing a positive relationship between job satisfaction and job status (for example, see Kassarjiam, 1961). However, the study has been criticised by Hulin and Blood (1968) on grounds that the interviewer may have projected his own biases into the findings. This is obviously a constant danger when employing the interview technique; but it seems likely that a person of Kornhauser's skill and experience would be fully aware of the dangers and take every measure to combat the possibility of bias.

Since these early studies, a voluminous quantity of data has been

gathered in respect to this area. The research literature indicates that "job satisfaction" is a multi-dimensional complex phenomenon. The most frequently recurring rubrics appear to be:

> the content of the work, actual tasks performed and control of work;
> supervision of the direct sort;
> the organization and its management;
> opportunities for advancement;
> pay and other financial benefits;
> co-workers;
> working conditions.
>
> (Ronan, 1970: 3)

These factors appear with varying importance depending upon the researcher and the format of the study. However, they seem to cover the more important sources of job satisfaction.

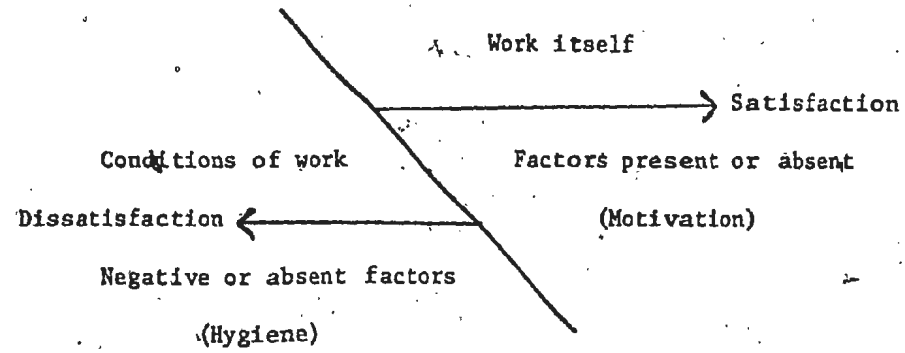
Yuzuk (1961), in a questionnaire survey of an electrical equipment manufacturing firm, assessed facets of satisfaction related to the job. The questions asked were in two forms, "evaluative" with terms as "management gives us a good vacation" to be answered on a Likert scale, and "descriptive" as "last year I got (0-4, 5-9, 10-13, 14-15, or more) days vacation with pay." The items were categorized and on the basis of a cluster analysis, eleven category items were intercorrelated and factor analyzed. The most single important correlate of satisfaction was labour grade, or level of skill (Yuzuk, 1961). The more skilled employees generally exhibit more favourable attitudes towards many aspects of the job and organization; however, it should be mentioned that they are usually at higher pay grades as well. In general, however, the study indicated that if job satisfaction can be measured in non-biased form it does relate to several dimensions of employee performance.

Katzell, Barrett, and Parker (1961) investigated warehouse workers in a drug firm; they were concerned with performance behaviours, including

production quantity and quality, and job satisfaction. They also considered situational characteristics such as: size of work force, city size, wage rate, unionization, percentage of male workers, and interaction of these measures as determined by profitability, product value, productivity and employee turnover. One finding of the study was the superiority of "rural" location both in terms of job satisfaction and general efficiency. In general, situational and performance measures are related through employee needs.

In a similar setting, Parker (1963) found that the large group (warehouses) in urban settings are less effective and the employees must see a reason for better performance that is of benefit to them before giving their best effort. It has been argued by proponents of PDM, that if workers are involved in policy-making, then the reasoning behind the decisions becomes clearer. They have an input into what is happening; therefore, their benefits are more obvious.

The complexity of job satisfaction has been indicated in the studies cited and it seems appropriate here to mention the Herzberg, Mausner and Snyderman (1959) "dual factor" theory of job satisfaction as satisfiers or dissatisfiers. Herzberg contends that factors that contribute to job satisfaction and factors that contribute to job dissatisfaction are not arranged along a conceptual continuum but are mutually exclusive. His hypothesis is that some factors are satisfiers when present but not dissatisfiers when absent. The Herzberg hypothesis can be illustrated as on the following page. The opposite of job satisfaction, according to Herzberg, would not be job dissatisfaction, but rather no job satisfaction; similarly, the opposite of job dissatisfaction is no job dissatisfaction--not job satisfaction (Herzberg et al., 1959:13).



The Herzberg hypothesis has been the center of much debate. It has been argued that it presents oversimplified answers to rather complex questions. Ronan argues that:

> . . . the weight of evidence would appear to show that job satisfaction is much more complex in its dimensional relations than that postulated by Herzberg and in addition, is related to both demographic and situational variables.
> (Ronan, 1970: 3)

It should also be remembered that the bulk of the studies which support Herzberg used his interview technique. Similar studies conducted investigating the same hypothesis and utilizing a different technique fail to support his findings (Hulin, 1966; and Vroom, 1964).

Viewing the dimensions of job satisfaction as a systematic relationship is another way of conceptualizing a complex idea (Warnimont, 1972). Arranging the variables as shown in Figure 11 makes it easier to visualize certain logical and semantic relationships among the many variables involved in job satisfaction. The crucial aspects are the differences between "feelings about" and "feelings of," plus the direction of the causal relationship shown.

It is clear that the subset of variables called "intrinsic factors" (similar to Herzberg's satisfiers) are not the same kind of variables as the subset called "extrinsic factors." All the intrinsic

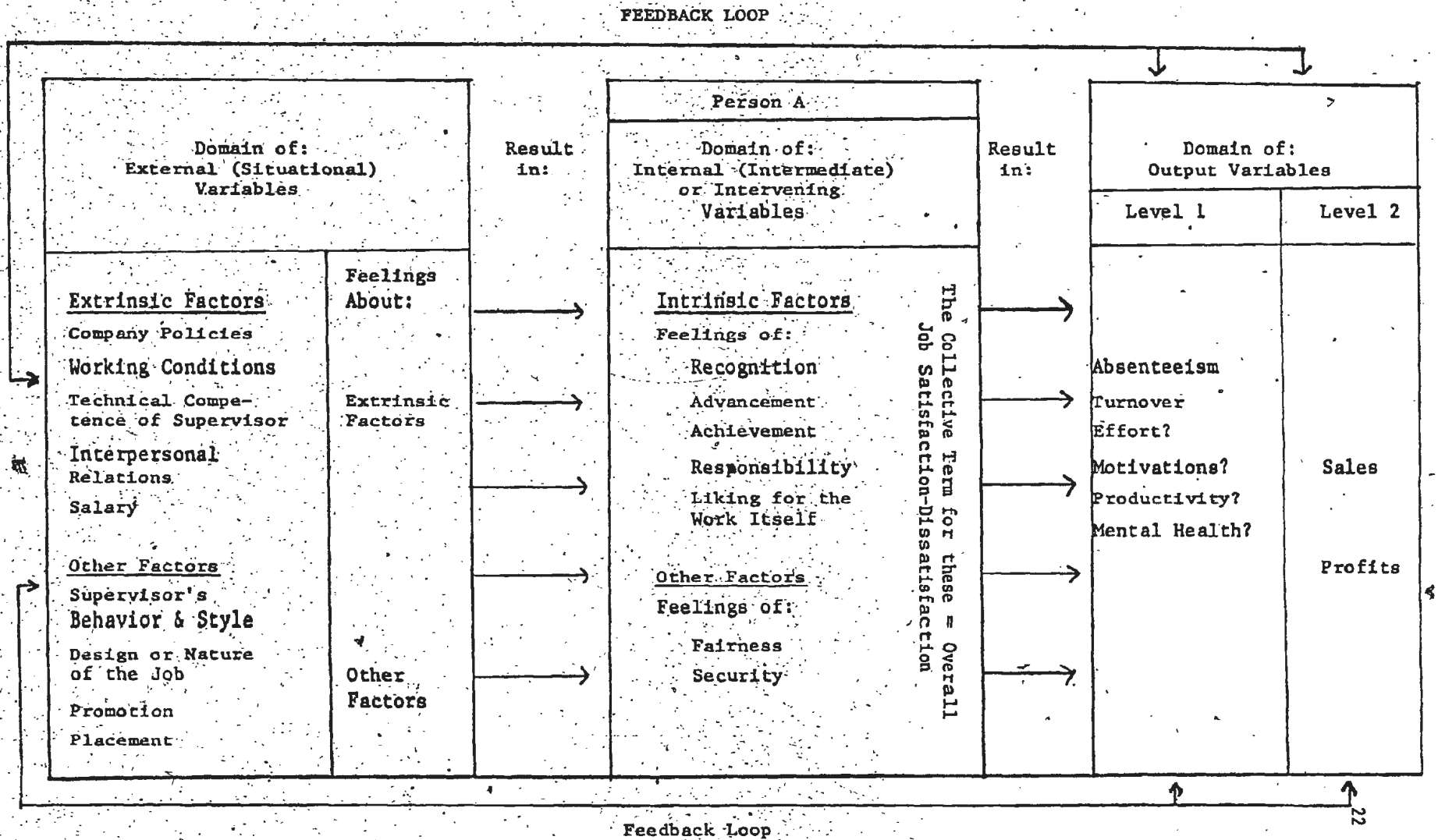


Figure 11 A job satisfaction system

factors are internal feelings, while extrinsic factors are external situations. "Feelings about" these external situations cannot be considered to be in the same domain as "feelings of," such as of recognition, responsibility, etc. "Feelings of" have no meaning except as felt by a particular person. Actual company policy, etc., can exist without needing a specified person as reference. "Feelings about" external variables might be called perceptions or opinions. They are not the same as gut feelings; however, they can and do produce gut feelings, like the feelings of recognition. Thus, for a given individual, "feelings about" (company policy, working conditions, etc.) are the causes of "feelings of" (recognition, achievement, etc.).

The open system approach allows us to visualize at least some of the possible relationships that can take place. Therefore, we become cognizant of, even if we do not fully understand, the intricate relationships that transpire. Likert (1961), in a summary of the literature, suggested a positive relationship between job satisfaction and job performance. He even pinpointed certain facets of job satisfaction that can be positively correlated with job performance. However, we must bear in mind that other studies, such as Fournet et al., reported that:

> . . . research data shows a mixture of inconsistent and confusing results from studies of the relationship between overall job satisfaction and productivity.
>
> (Fournet et al., 1966: 176)

The complexity of job satisfaction has resulted in a number of definitions which have led to it being measured in numerous ways. Wanous and Lawler (1972) reviewed nine different operational definitions of job satisfaction. They made an important distinction between overall job satisfaction (JS) and satisfaction with particular facets of one's job,

job facet satisfaction (JFS). The operational definition specifies different ways of measuring facet satisfaction and different approaches to combining data from JFS in order to measure overall satisfaction.

Overall job satisfaction, according to Wanous and Lawler (1972), is the sum of job facet satisfaction across all facets of a job; or, perhaps, the weighted sum of job facet satisfaction.

$$JS = \sum^{\text{Facet}} (JFS)$$

Job satisfaction has also been conceptualized as a weighted sum of job facet satisfaction. In order to account for individual differences in the value people place on the facet of a job, some investigators have used ratings of the importance of job facet to weight the facet satisfaction before summing them to obtain an overall satisfaction score:

$$JS = \sum^{\text{Facets}} (\text{importance JFS})$$

Job satisfaction has also been operationalized as a discrepancy: it is defined as the difference between responses to a "how much should there be" item and responses to a "how much is there now" in connection with a number of job facets or needs. The difference between these two types of items is computed, and the differences are summed across the job facets to yield a measure of overall job satisfaction.

$$JS = \sum^{\text{Facet}} (\text{should be--is now})$$

The last equation might best be conceptualized as a weighted sum of the "should be--is now" differences constituting the job facets. In this way the relative importance of each of the differences constituting distinctive job facets is included in the overall measure of job satis-

faction. This "importance" dimension would yield an equation such as:

$$JS = \sum_{\text{Facets}} (\text{importance, should be--is now})$$

(Wanous and Lawler, 1972: 96)

Hulin (1964) gathered data from a sample of 185 male workers and 75 female workers employed in two plants of an electronics manufacturing firm in New England. The data was relevant to five separate areas of a worker's job satisfaction (satisfaction with: work, pay, promotion opportunities, co-workers and supervision); there were also six independent variables (age, sex, tenure on the job, tenure with the company, job level, salary and salary minus salary received). Multivariate-regression analyses were performed to determine the validity of two hypotheses, that age and tenure bear U-shaped relationships to job satisfaction. No support was found for these hypotheses. The results indicated a linear model of job satisfaction for the male workers. The job satisfaction of female workers could not be predicted accurately.

In a later study, Hulin (1966) investigated the high rate of turnover among female workers employed by a large Montreal based firm. Job satisfaction questionnaires were administered to a sample of 350 female employees. The job satisfaction of these women was assessed by means of a Job Description Index (JDI). The JDI is a cumulative-point, adjective check-list style of scale. It was used to measure five separate aspects of a worker's satisfaction: satisfaction with work done, with the pay, with promotional opportunities and policies, with the co-workers, and with the supervisor. After a lapse of five months thirty-one women had quit, twenty-six of whom had completed the questionnaire. These twenty-six women reported significantly less satisfaction with their job

than the 319 girls who remained on the job. The study was continued for seven more months. The data from the subsequent seven months indicated that job satisfaction scores exhibit a significant relationship to turnover during a twelve month period. The study concluded that a dissatisfied worker is more likely to leave his/her job than a satisfied worker. He also suggested that the results were significant because ". . . females have fewer economic reasons for remaining on any job they are dissatisfied with than a comparable sample of males" (Hulin, 1966: 284).

Pallone, Richard, and Hurley (1970) surveyed the literature pertaining to job satisfaction and grouped the studies under six headings reporting both positive and problematic findings. Their emphasis was on: two factor theory, need hierarchies, resistance to change, organizational structure and climate, methodology and instrumentation. From this survey emerged the following conclusions:

> 1. There remains insufficient evidence to support Herzberg's hypothesis that job satisfaction is generated by one set of variables, while dissatisfaction is generated by another qualitative distinct set;
> 2. The relationship between job satisfaction and satisfaction of psychological and social needs remains unclear. Some workers satisfy many needs through work; others satisfy few. The extent to which workers in certain occupations anticipate or seek satisfaction of psychological needs through work remains to be resolved;
> 3. Little support was reported for the widely held operating hypothesis that job dissatisfaction leads to job change or career change.
>
> (Pallone, Richard, and Hurley, 1966: 174)

Wood (1967) conducted a study concerned with two theories of professional job satisfaction: (1) unidimensional, and (2) multidimensional with specific reference to Herzberg's two factor theory. An overall job satisfaction index and thirty-four questionnaire items were evaluated by a national sample of over 3,000 engineering graduates. Each

engineer indicated the personal importance of each item and the degree to which each characterized his current professional status. Factor analysis suggested that job satisfaction is multidimensional. Analysis of results revealed that job satisfaction seemed most related to: (1) a general job characteristic factor, and (2) professional challenges. Five other factors were also identified: Status, Autonomy, Professional Recognition, Interpersonal Relations and Supervisory Relations.

In summarizing, one is compelled to acknowledge the inconsistency in the findings. Lowin (1968) tries to explain the results by saying that whenever research is conducted in a complex and multidimensional area there will probably be an equal number of "positive" and "problematic" studies. Whatever the reason for the mixed findings, it becomes evident that job satisfaction is an area where much research is needed, particularly in dichotomizing units on the various criteria and evaluating unit contextual and satisfaction variables. By performing such operations, variables which are most influential in determining job satisfaction can be identified and then manipulated to produce the desired effect, job satisfaction. In the following section, literature pertaining to job satisfaction of teachers will be reviewed.

STUDIES OF TEACHER JOB SATISFACTION

> . . . when teachers' expectations are fulfilled with regard to the leadership of administrators and supervisors their morale soars; when their expectations are disappointed, morale takes a nose dive.
>
> (Chase, 1953: 3)

The study conducted by Chase (1953) has been cited in almost every review concerning teacher satisfaction, due to its comprehensive positive findings. The author collected evidence throughout the United

States in which he interviewed more than 400 teachers in five systems, and obtained questionnaire responses from another 1800, representing forty-three states and 216 school districts. One of the significant findings was the close relationship between teachers' ratings of their superintendent, principal, and supervisors and the extent of their satisfaction with the school system in which they were working.

Chase found an equally close relationship between teachers' satisfaction with their school and their rating of their principals' leadership. The same holds true of the relationship between teachers' opinions of supervision and their satisfaction with the school system. Over eighty-eight percent of the teachers reported that dynamic and stimulating leadership by the building principal contributed greatly to their satisfaction in teaching. Similar leadership by the superintendent was considered of top importance by nearly as many teachers. Factors receiving a lower rating included good salaries and light teaching loads.

Chase concluded that when teachers' expectations of leadership are poorly met, the chances for enthusiasm are reduced as low as ten in a hundred; and the chance for serious disatisfaction rises correspondingly.

Becker (1951), in a study of school teachers in the Chicago Public School System, found a definite set of expectations with respect to the principal. They can be summarized thus:

The Principal:

(1) should protect the teachers' authority vis-a-vis parents and pupils, always upholding the teacher, no matter who is at fault;

(2) should not "spy" on teachers or give arbitrary orders;

(3) should allocate rights and duties "fairly."

In conclusion, Becker suggests that teacher satisfaction runs high if principals have regard for such expectations.

Scully (1945) likewise reported dissatisfaction arising from attitudes or action of the principal which threaten the individual's social, professional, or economic security. On the other hand, he found that the most frequently mentioned contributor to satisfaction was if teachers were permitted freedom from interference (e.g. decision-making responsibility).

Silverman (1957) conducted a study of elementary school principals to determine how they might affect teacher satisfaction. He was also concetned with determining whether such factors as size of the school, the socio-economic background of their school, the length of their teaching service, the extent of their formal academic training, or their sex influenced the judgments of the 452 respondents in the eighteen schools participating in the study. The results revealed a marked concern on the part of the teachers with the need to achieve security. Of the five strongest items, four of them were directly concerned with this basic need. Another point that seemed to stand out was the importance the teachers gave those personality and human relations traits that made for success or lack of success among executives, whatever the line of work. The statistical analysis indicated that a principal's personality and human relation attributes had more effect on teacher satisfaction than any of his other characteristics.

Silverman's study indicates that the principal is in an especially strategic position to counteract those factors contributing to teacher dissatisfaction. It is possible that he represents the strongest satisfaction-influencing factor of all.

Harap (1959), in a study to determine what factors affected teacher satisfaction, conducted surveys in twenty school systems. His main thesis was that high satisfaction makes people secure, unafraid, productive and loyal. Dissatisfaction is what makes people unhappy, insecure and indifferent. Harap realized that it was impossible to determine what factors affect satisfaction in every individual case; therefore, the only safe generalizations are those that affect the teachers' satisfaction most frequently in many different situations.

Teachers were asked to estimate their satisfaction on a three-point scale; good, average and low. In addition, the teachers were asked to suggest ways of improving their satisfaction; what they found to be the most pressing problems, and what they thought were the school system's strengths and weaknesses. Harap's findings can be summarized thus:

Causes of Dissatisfaction	Causes of Satisfaction
Large classes	Good administration
Poor buildings	Sharing in decision-making
Inadequate salaries	Good buildings
Poor administration	Good welfare policy
Lack of teaching materials and equipment	Good salaries
Absence of democratic administration	
Lack of PDM	
Poor grievance procedure	

It should be pointed out that where the teachers shared in decision-making, the evidence showed that they greatly appreciate this recognition; "they rate it frequently among the strongest points of a school system" (Harap, 1959: 57).

Boyan (1969) hypothesized that teachers are seeking a more central role in educational decision-making as a result of two personal characteristics. First, the ratio of the sexes in the teaching force has shifted dramatically in favour of males; men generally express themselves more vigorously than women on career and employment issues. Secondly, they are bringing to their work increased levels of preparation and expertise. A similar view was stated by Parsons (1962):

> the more expert (that is professional) the technical personnel become, the more resistant they become about managerial decisions concerning technical activities and about the competence of the managerial personnel to supervise technical performance. (Parsons, 1962: 63).

Bridges (1964), in a study of twenty-eight schools, sought:

1. to define participation in operational terms;
2. to study the personal and situational factors governing the administration's tendency to provide for participation;
3. to examine the effects of participation on attitudes towards the administration.

He viewed participation in four modes: Announcing--the administrator chooses a course of action and reports his decision to the teacher; Testing--he presents his proposed solution to his teachers for their reaction and then makes his decision; Soliciting--he has the teachers suggest some possible course of action and from this the administrator chooses the solution he regards as most promising; Delegating--the administrator involves and passes the right to make decisions to the teacher.

The results indicated that administrators who were <u>well liked</u> by teachers were the same ones who involved teachers in decisions that were considered to be of importance. He also found that the type of PDM was affected by the size of the school; the larger the school the less PDM

was reported.

Sergiovanni (1967) undertook a study to determine whether or not the factors reported by teachers would distribute themselves into mutually exclusive satisfaction and dissatisfaction categories. Further, if the satisfaction-dissatisfaction phenomenon existed for teachers, would the factors resulting in satisfaction be concerned with the work itself? Further, would the factors resulting in dissatisfaction be concerned with the environment of work?

The population consisted of teachers in school districts in Monroe County, New York. The districts ranged from semi-rural to suburban in orientation and the schools ranged in size from a teaching staff of thirty-six to a teaching staff of five hundred and twenty-eight.

The data gathering technique was the same as that used by Herzberg (1959). The results indicated that achievement, recognition, and responsibility were the predominant factors which contribute to teacher job satisfaction. Interpersonal relations (peers), supervision-technical, school policy and administration, personal life, and fairness-unfairness were the principal factors which contributed to teacher job dissatisfaction.

The findings suggest that the present emphasis on "teacher-centered" behaviour (supportive supervision, interpersonal relations, effective communication, and group effectiveness) is an important prescription for effective administrative behaviour. The "teacher-centered" approach, however, is limited in that it tends to concentrate on the elimination of dissatisfaction factors and thus does not contribute directly to teacher job satisfaction.

"Task oriented" behaviour (organizing and planning work, imple-

menting goal achievement) emerges as an important and direct contributor to teacher job satisfaction. Such behaviour, on the part of the administrator, would include increasing the opportunities for teachers to experience personal and professional success. Basic to this undertaking is the proposition that administrators will permit and encourage teachers to: (1) exercise more autonomy in decision-making; (2) increase individual responsibility in developing and implementing teaching programs; and (3) develop professional skills (Sergiovanni, 1967: 80).

In summary, factors which appear as sources of high job feelings for teachers tend to differ from factors which appear as sources of low job feelings. Further, the satisfaction factor tended to focus on the work itself, and the dissatisfaction factors tended to focus on the conditions of work.

Wickstrom (1973) replicated Sergiovanni's study in Saskatchewan using four hundred and seventy randomly selected teachers. He reported that there was no significant evidence to support the Herzberg hypothesis that the factors operate unidirectionally. Wickstrom also suggests that a teacher's job satisfaction is closely related to his perception of competence. Therefore, he argues that as a teacher's perception of competence improves, so will his job satisfaction.

Parsons (1970) conducted a study to determine factors related to satisfaction of teachers; the survey covered the following four groups:

1. The beginning teacher in Toronto;
2. The student-teacher at Memorial University who has some teaching experience;
3. Teachers in the field who were taking evening courses at Memorial University;
4. Teachers on the Avalon Peninsula including both those in the city of St. John's and outside.

The results indicated that some aspects of teaching had no significant effect on teacher satisfaction. These were: years of training, teaching experience, size of school, student grade taught, and age of teacher.

In all four surveys, teachers received greater satisfaction from internal rewards (those rewards related to interpersonal relationships, e.g. relations with fellow teachers, students, supervisors) than from external rewards (those rewards related to economic security, pay and status). In the three Newfoundland studies women teachers were relatively more satisfied than men. In all four surveys teachers expressed a feeling of deprivation (low satisfaction) when they compared their salaries to those of other occupations open to people with their level of education.

Coverdale (1973) conducted a study of a random sample of practising primary and secondary school teachers throughout New South Wales, Australia. He was interested in teacher morale and hypothesized that morale would be increased by favourably modifying the conditions that will increase job satisfaction. The results of the study can be summarized as follows:

1. Teachers were dissatisfied with their present inspectorial system. They felt that rigid inspection by the administration destroys professional self-image;
2. Teachers felt they should have more say in the curriculum - they were dissatisfied with the functionary role dictated to teachers;
3. Teachers were dissatisfied with a promotion system which slavishly favours seniority;
4. Teachers were dissatisfied with being relegated to a utilitarian role with little or no say in policy making;
5. Great concern was caused by class size and inadequate amenities and equipment;
6. The view that many people held of teaching being a "bridge profession" providing a means of "upward social mobility"

> rather than establishing an enduring commitment to the profession causes a low morale.
>
> (Coverdale, 1973: 36)

Reinhart and Lawson (1959) studied 1,207 teachers in Illinois. They found that 87-92 percent were satisfied because of freedom from interference with personal life, security, academic freedom and sick leave policy.

Mason (1961) reported that beginning teachers received their greatest satisfaction from relations with fellow teachers, supervisors, students and parents. The greatest area of dissatisfaction was salary. Women were more satisfied than men and elementary teachers were more satisfied than secondary teachers.

Kuhlen (1963) administered the Edwards Personal Preference Schedule, a special job satisfaction rating scale, and a questionnaire related to need satisfaction to one hundred and eight male and ninety-five female teachers in their twenties and thirties. The total group was quite satisfied with their careers but both sexes agreed that individuals with strong needs for autonomy would likely be extremely frustrated. Among the male teachers particularly, high achievement needs tended to produce dissatisfaction, but men tended to be satisfied if they perceived teaching as potentially satisfying.

Thompson (1960) found widespread dissatisfaction and low morale among fifty teachers representing thirty college faculties. Reasons for low morale appeared to be rooted in several areas: (1) disappointment over performance of students, (2) autocratic administration, (3) lack of academic freedom, and (4) lack of recognition and respect.

Hornstein (1968) conducted a study to investigate the relationship between employee's satisfaction and the extent to which he can

influence certain aspects of organizational (school) decision-making. For this investigation, questionnaire data were gathered from three hundred and twenty-five primary school teachers who worked in fourteen different school buildings. The teachers reported greatest satisfaction with their principal and school system when they perceived that they and their principal were mutually influential, especially when their principal's power to influence eminates from their perceiving him as an expert. They also found that student performance will be improved when teachers perceived themselves as sharing in the process of organizational decision-making.

The literature reviewed on teacher job satisfaction identifies a number of variables of varying importance depending upon the particular situation of the study. Although the findings are mixed there is an underlying concept emerging. Job satisfaction is important and does affect teacher performance, but the answer to questions such as "How?" and "Why?" is clear. The final section reviews studies dealing directly with the relationship between PDM and job satisfaction of teachers. Again mixed results will become apparent, further indicating the complicated relationship that exists between these two variables.

STUDIES CORRELATING PDM WITH JOB SATISFACTION OF TEACHERS

Belasco and Alutto (1972) collected data through use of a questionnaire survey technique of two school districts located in western New York State. They examined the relationship between the levels of satisfaction experienced by teachers and their state of decisional participation. Building upon much prior research, their approach isolated

three states of decisional participation: deprivation (participation in fewer decisions than preferred), equilibrium (participation in as many decisions as desired), and saturation (participation in more decisions than desired). Such a method, they argue, provides an indication of a teacher's sense of distributive justice concerning his or her participation in decision-making.

Belasco and Alluto (1972) cited research which has indicated that neither the desire for increased participation nor employee satisfaction levels are equally distributed throughout the teacher population. Rather, certain substrata of teachers desire more participation than they currently enjoy, while others desire less, while yet others desire no change in the current rate of participation. Furthermore, other research evidence indicates a wide dissimilarity in the distribution of various attitudinal characteristics within the teaching population. For example, teachers who are younger, married, male, employed in secondary schools, and coming from higher social class backgrounds tend to be more professional in orientation. Satisfaction, as one attitudinal characteristic of teachers, has been demonstrated to be differentially distributed throughout an organizational population by Herzberg (1959), Blauner (1930), Kornhauser (1930), and others. On the basis of this evidence, Belasco and Alutto hypothesized that their study would reveal a differential distribution of both the desire for participation and its relationship to satisfaction levels throughout the teacher group.

In the conclusion of their study, they confirm that decisional climate is indeed a major factor influencing teacher satisfaction levels. They argue:

> It is apparent that if a given educational organization is to sustain itself over time it must concern itself with both the attraction and retention of teachers and the faithful performance of their interrelated role activities . . . for both humanistic and organizational reasons, educational institutions must create the conditions which enhance the probability of high satisfaction level among their teaching personnel.
> (Belasco and Alutto, 1972: 54)

The data collected in their study further indicates that decisional climate is a major factor influencing teacher satisfaction levels. Those teachers with lower satisfaction levels (e.g. those who are most willing to consider leaving their current employment) also possess the highest level of decisional deprivation. Therefore dissatisfaction associated with decisional deprivation, could have deleterious effects on the educational system.

In conclusion, they suggest the necessity for recognizing that a decisional participation approach will have a varying impact on satisfaction levels in different strata of the teaching population. For example, it would seem apparent from their study that increased participation should be given to younger males in secondary schools to increase their levels of satisfaction. The authors conclude that:

> . . . to increase satisfaction levels there is a pressing need for differential participative management approaches to meet the differential participation desires of various substrata . . . that is necessary . . . to insure the high quality of performance of a most critical resource--the classroom teacher.
> (Belasco and Alutto, 1972: 57)

Sharma (1955), in a nation-wide survey of over five hundred teschers, investigated thirty-five activities related to twelve areas of school operations. Teachers were asked to indicate who made the decisions regarding each of the thirty-five activities and then who they felt should make the decision.

The results revealed that those teachers desired involvement in the

following areas: choosing instructional materials (books, films, maps) and objectives of learning and curriculum content, teaching load and other assignments of teachers, salaries and welfare provisions, pupil evaluation and promotion, selection, promotion and retention of teaching personnel, extra curricular activities, and pupil relations. He also reported that "satisfaction was related directly to the current practices in decision-making in operation in the schools" (Sharma, 1955: 4).

Carson, Goldhammer, and Pellegrin (1967) investigated teachers' feelings concerning involvement in sixteen areas of school activities. The majority of teachers wanted formal participation in decision-making in the areas of: salary scheduling, determining the method of instruction within the classroom, curriculum planning and development, determining schedule in teacher's own room, selection of instructional supplies and scheduling of supervisory duties. However, they did not desire participation in: selection of new teachers, financing school plant expansion, room assignments, and daily schedule for building in which they teach.

In a similar study in Newfoundland, Inkpen (1974) collected data on three hundred elementary teachers. He was concerned with the amount of PDM teachers experienced and the amount they desired. The results indicated:

1. A significant difference existed between desired and actual levels of participation in the decisional areas of: curriculum planning and adaptation, classroom management, arrangement of the school instructional program, general organization and building construction.
2. With the exception of sex, essentially no significant interaction was found between variables of age, teaching experience, professional training, size of school, type of board and school, and teachers present and desired level of participation in the five decisional areas.

(Inkpen, 1974: 91)

A study by Simpkins and Freisen (1969) revealed teachers want PDM in certain areas, but the extent and form of participation should vary with the task. They reported that teachers preferred to see the formal staff determine:

A. School rules and regulations;
B. Teacher load and duties;
C. Allocation of money to teachers and departments.

The individual teacher desired to play a major role in:

A. Classroom management;
B. Deciding on detailed content of the curriculum;
C. Making arrangements with parents to discuss matters concerning their children.

(Simpkins and Freisen, 1969: 16)

Ponder (1974) acknowledged the complexity of the PDM relationship and identified potentially mediating variables associated with it, such as: stages of the decision-making process, levels of involvement, levels and kinds of decisions, and the form of participation. He further suggested that PDM is most likely to yield positive results when the degree of actual involvement enjoyed by teachers matches their desired degree of involvement.

These studies support the claim that although teachers desire participation, it is not participation in all decision areas, but rather "selective involvement." In certain areas teachers want very little or no participation and will accept decisions made without question. Barnard (1938) referred to this area, where subordinates do not desire participation, as a "zone of indifference." He stated that if subordinates are involved in decision-making within their zone of indifference, participation will not be as effective as when they are involved in decision-making outside their zone of indifference. Furthermore, Bridges (1967)

asserted that if subordinates are indiscriminately involved in decision-making within their zone of indifference, alienation could result. Consequently, before teachers are involved in decision-making their superiors must determine how relevant the area concerned is. Too much pressure to obtain participation of teachers in educational planning can become a source of resentment and dissatisfaction (Chase, 1953: 130).

Chase (1953) concluded that teachers who are allowed to participate regularly and actively in making decisions are much more likely to be happier than teachers who have limited opportunity to participate.

Similar support can be found in studies conducted by Guest (1960), Vroom (1960), and Stinnett (1970).

Ellenburg (1972) conducted a study of teacher attitudes and morale as related to participation in administrative decision-making. Analysis of the data revealed the following:

> Teachers who participate in school administration have higher morale than teachers who do not participate. Teachers who participate in school administration have more positive attitudes towards their principals, towards their colleagues and towards their pupils.
>
> (Ellenburg, 1972: 44)

Gifford (1964) studied the effects of involving teachers in decision-making. His subjects consisted of ninety-nine principals and four hundred and seventy-four elementary teachers from three Utah school districts. He found that the more teachers were involved in the decision-making process, the more positive were their attitudes towards their work.

However, the results of these studies should not overshadow the fact that the relationship between PDM and job satisfaction is an extremely complex one. This has been hypothesized by Ponder (1974) and

illustrated in a study by him conducted in the fall of 1975. Ponder et al. (1975) could find no statistically significant relationship--linear or curvilinear--between PDM or job satisfaction. However, one must bear in mind the limitations of the study, such as that the teacher sample was not representative of the teacher population (the majority were older, married females). A second limitation was the size of the sample, as there were only one hundred and two respondents. However, bearing in mind these limitations the results indicate that the relationship between PDM and job satisfaction appears to be a complex multivariate one.

SUMMARY

In this review the author has attempted to bring some order to an almost chaotic area of research. The literature consistently reveals mixed findings in relation to the areas reviewed: "Participative Decision-Making," "Job Satisfaction," and "Productivity." The reasons for this phenomenon are as varied as the results themselves. Ronan (1970) stated that a generally acceptable methodology for measuring these dimensions has not been agreed upon and thus the results may be as much a measure of the instrument as the variables being measured.

In the educational section the problem of measurement becomes especially acute. Educators have wrestled in vain with the problem of measuring productivity. Their efforts have in many instances caused confusion rather than enlightenment, the result being that researchers have often generated their own definitions; however, they have not always been acceptable to others.

From the available research findings one could well conclude that the only consistently emerging pattern appears to be the complexity of

the area under investigation. There appears to be a relationship between PDM and such dependent variables as productivity but the nature and extent of this relationship is uncertain. Furthermore, it is quite possible that it is a selective rather than a global relationship, dependent on such factors as: culture, populations, sex, age, and a host of other possible variables.

FRICTION POINT TYPOLOGY

Owing to the mixed research findings and associated measurement difficulties, it was necessary to select from among a variety of possibilities, "a theory," which was at least intuitively attractive. The one chosen by the author was the one developed by Ponder (1975).

Ponder theorizes that the application of the friction point is threefold. First, decision areas which are of high importance to employees (teachers) and in which there is a large discrepancy between actual and desired participation are likely to yield negative outcomes for the organization, i.e. have a high friction point rating (FPR). Secondly, decision areas which are of high importance to employees and in which there is relative congruency between actual and desired participation, increase the chances of positive organizational outcomes, i.e. produce low friction points. Finally, decision areas of low importance, whether discrepant or congruent, appear unlikely to affect organizational performance significantly in either direction. Hence they would process a medium friction point rating (Ponder, 1972: 2).

As the above indicates, there are two distinct dimensions underlying the friction point concept; they can be illustrated pictorially as in Figure 12.

		Discrepancy		
		Low	Medium	High
Importance	Low	1	2	3
	Medium	4	5	6
	High	7	8	9

Figure 12

Friction point rating typology

These two dimensions are decision discrepancy and decision importance. On the discrepancy scale, each could be classified as high, medium or low. Items could be similarly classified on the importance scale. Thus, those items which fall in cells 6, 8, and 9 are important, discrepant items and would be given high FPR's; those in cells 1, 2, and 3 are unimportant and either congruent or discrepant and would be given a medium FPR; and those in 4, 5, and 7 are important and relatively congruent and would be given a low FPR. "Friction Point Rating may then be interpreted as an index or indices of organizational health" (Ponder, 1975: 5).

HYPOTHESES

The hypotheses generated from the friction point typology are two:

1. There is an inverse relationship between friction point rating (FPR) identified by teachers and their Job Satisfaction.
2. An inverse relationship exists between friction point rating (FPR) and Teacher Productivity.

Owing to a rather weak "theory" of PDM, the author was also concerned with the relationship of Friction Point Rating and a number of other potential independent, dependent or mediating variables. The author is unable to state categorically the nature of these variables because it may well be that, for example, self concept of teaching ability (SCTA) determines FPR, FPR determines SCTA or SCTA mediates the relationship between FPR and productivity or satisfaction. The following variables were selected as potentially important ones: the amount of effort a person is willing to put into his job (Effort); the amount of satisfaction a person receives from teaching as a career (Career); a person's own self concept of his teaching ability (SCTA); a person's age, experience and years with present school board (Seniority); a person's sex and a person's teaching license (Grade).

There are a number of reasons for including SCTA in the study. It is noted in several important studies that self attitudes account for productivity or achievement outcomes over and above a host of other predictor variables. Further, the theory underlying the inclusion of a self attitude variable has been well developed by Brookover (1967), and is well grounded in the symbolic interaction literature which is often traced to the work of Mead (1934) or Cooley (1902). (For a comprehensive review of the literature related to self attitudes, see Singh, 1972, 1977).

CHAPTER 3

DATA DESCRIPTION, COLLECTION AND SCALE DEVELOPMENT

This chapter provides a description of the instrument used, the sample, the method utilized to collect the data, and scale development.

THE RESEARCH INSTRUMENT

The instrument used was a revised and extended form of the one employed by Simpkins and Friesen (1969) in their study of decision-making among Alberta school teachers (See Appendix A).

The questionnaire, measuring FPR and other factors, was divided into six sections. The first three sections consisted of the same nineteen decision-making activities grouped in the following decisional areas: curriculum planning and adaptation, classroom management, arrangement of the school instructional program, evaluation, general school organization and staffing. The specific activities in each of the six decision areas were as follows:

Curriculum Planning and Adaptation

1. Determination of the basic outline of the curriculum.
2. Determination of the detailed content of the curriculum.
3. Determination of the texts and instructional material for the curriculum.

Classroom Management

4. Determination of the way subject matter is presented in class.

5. Determination of the frequency and methods of classroom testing.

6. Determination of the method of discipline to be used in the classroom.

Arrangement of the School Instructional Program

7. Determination of the class placement of pupils.

8. Determination of the promotion of pupils.

9. Determination of the allocation of money to teachers for instructional aids and equipment.

Evaluation

10. The evaluation of my performance as a teacher.

11. The evaluation of the performance of my colleagues as teachers.

12. The evaluation of supervisory and administrative personnel within the school.

13. The evaluation of central office personnel such as consultants, supervisors, and the superintendent.

General School Organization

14. Determination of the teaching load and other duties of teachers.

15. Determination of the arrangements for parents to discuss matters concerning their children's schooling.

16. Determination of school rules and regulations for the general student body.

Staffing

17. The appointment of teachers to your staff.

18. The appointment of supervisory personnel such as the vice-

principal or principal in your school.

19. The appointment of central office personnel such as consultants, supervisors, and the district superintendent.

Part I of the questionnaire required teachers to indicate the level of involvement they presently experienced in each of these decision activities:

1 - no involvement

2 - low level of involvement

3 - medium level of involvement

4 - high level of involvement

5 - exclusive involvement

Part II required the teachers to indicate the level of involvement they prefer and utilized or employed the same scale as Part I. In Part III the teachers were asked to denote the relative importance attached to each of the nineteen decision activities. The following scale was used:

1 - not at all important

2 - slightly important

3 - average importance

4 - very important

5 - priority importance

Part IV of the questionnaire was an adaptation of Mitchell's (1968) procedure for measuring satisfaction. In his study of Alberta teachers, he subjected the following teacher satisfaction items to principal component factor analysis:

Feel 1. The top salary available to teachers.

Feel 2. My chances for receiving salary increases without promotion.

Feel 3. Amount of progress which I am making in my professional

career.

Feel 4. The capabilities of most of the people who are in teaching.

Feel 5. The possibilities for a teacher advancing to a position of greater responsibility in teaching.

Feel 6. The level of professional standards maintained by most teachers.

Feel 7. The academic performance of the students in my present school.

Teachers rated each item on the following four-point scale: very satisfied, satisfied, slightly dissatisfied, and very dissatisfied (see Appendix A for item responses). After oblique Kaiser Rotation three orthogonal dimensions of teacher satisfaction emerged from the analysis. These were labelled, "Career Satisfaction," "Job Satisfaction," and "Professional Satisfaction." The Mitchell items were subjected to factor analysis in the Newfoundland context in order to construct a teacher satisfaction scale for further analytical purposes (the results of this factor analysis is provided later, i.e. p. 55).

Part V of the questionnaire contained twenty-two items from which the following three scales were developed: Effort, Intrinsic Commitment to Teaching (Incomt), and Self Concept of Teaching Ability (Scta). Due to the length and diversity of the possible responses for each item, the author has decided not to include them in this section. They are, however, included in Appendix A, Part V of the questionnaire.

Effort

Effort 1. In an average week the number of hours spent at preparation, at evaluation and advising students as compared to the time

spent by other teachers are. . .

Effort 3. Some people are completely involved in their jobs--for others their job is simply one of several interests. How involved do you feel in your job?

Effort 4. How often do you do extra work for your job which really is not required of you?

Effort 5. Would you say you work harder, less hard, or about the same as other people doing your work?

Intrinsic Commitment to Teaching (Incomt)

Incomt 6. If I inherited so much money that I did not have to work, I would still take up a career in teaching.

Incomt 8. Teaching is one of the most satisfying aspects of my life.

Incomt 9. To me teaching is just a way of making money.

Incomt 10. I have sometimes regretted going into teaching.

Incomt 11. I enjoy my spare time activities much more than my work as a teacher.

Self Concept of Teaching Ability (Scta)

Scta 12. My academic background in comparison with university professors is. . .

Scta 13. My qualifications in comparison with those of my superiors are . . .

Scta 14. Your rating of your own knowledge in your subject area as compared with your colleagues in the same area is . . .

Scta 15. The rapport I have with my students as compared with the rapport my colleagues have with the same students is . . .

Scta 16. The skills I possess in communicating knowledge and different

concepts to my students in comparison with my colleagues is . . .

The procedure used to construct these scales is discussed at length in the section entitled Scale Development.

The final section of the questionnaire was comprised of general questions designed to gather information concerning personal and professional characteristics of the respondents and their school setting. The information gathered was:

1) Year of birth
2) Sex
3) Years of teaching experience
4) Number of years employed by present school
5) Years resident in present community

These, in combination, formed a seniority scale.

THE SAMPLE

All the high schools on the east coast of Newfoundland (east of Gander) were divided into four categories, namely, those with 0 to 149 students, those with 150 to 249, those with 250 to 399, and those with more than 400 students. By means of a proportional stratified sampling technique, which assured representation from each of the four categories, twenty-five schools were selected. There was a total of 358 teachers in the twenty-five schools selected, and all these were invited to complete the questionnaire instrument. In all, 280, or 78.2 percent of the total teacher sample, participated in the survey by completing usable questionnaires. Due to the fact that everyone did not respond to the instrument; the sample was a nonprobability one. The individuals who

did not respond had no probability of being included in the ultimate sample because they had selected themselves out by refusing to answer. It should be pointed out that the major limitations of this is that no valid estimates of the risk of error can be obtained. Table 3.1 provides information concerning the respondents' age, sex, teaching experience, years of professional training completed, years of professional training expected to complete, years of residency in community, and years employed in present board.

COLLECTION OF THE DATA

The questionnaire was delivered by the researcher to each school at which time a briefing session was held with the principal. Since no direct contact with teachers was possible, the cooperation of the principal was essential to the success of the study. During the meeting with each principal, the purpose and scope of the study was discussed and questions pertaining to the study were answered. The administration of each school accepted the responsibility of distributing and collecting the questionnaire. This initial visit was followed up a week later by a telephone call to each principal. The researcher waited another week and the schools who had not responded to this point were contacted by phone again. The schools in the St. John's area were treated in a similar manner except that after the first phone call, the researcher visited the principal. It was hoped that by having personal contact a higher percentage of questionnaires would be returned.

SCALE DEVELOPMENT

Due to the nature of the study and the recognized difficulties

TABLE 3.1

CHARACTERISTICS OF RESPONDENTS AND THEIR SCHOOL SETTING

Variable	Category	Number	Percent
Age	Under 25	59	21.5
	25 - 35	156	56.9
	36 - 45	40	14.6
	Over 45	19	8.0
Sex	Female	73	26.7
	Male	200	71.3
Years of Teaching Experience	1 - 2	42	15.2
	3 - 5	53	19.3
	6 - 10	88	32.1
	Over 10	91	33.2
Years of Professional Training	Under 2	2	0.7
	3 - 4	20	16.2
	5 - 6	186	68.4
	7 or Over	40	14.7
Grade Expected	3 - 4	5	2.3
	5 - 6	104	47.1
	7 or Over	112	50.7
Residency	Under 3	85	31.3
	4 - 6	50	18.4
	7 - 9	32	11.8
	10 - 14	31	11.4
	15 - 19	15	5.4
	20 or More	59	21.9
Years Employed with Board	1 Year	55	20.1
	2 - 3	61	22.3
	4 - 6	53	19.4
	7 - 9	42	15.4
	10 - 14	57	20.9
	15 - 19	5	1.8

in measuring the postulated outcomes, it was essential that precise indices of the factors be constructed. Common factor analysis procedures were used for constructing single factor or unidimensional scales, namely, career satisfaction, effort (which was the approximation used in the study for productivity), self concept of teaching ability and seniority. Factor analysis produces a table of correlations called factor loadings by comparing each item of a set with every other item. A factor loading, like a correlation coefficient, has a range of values from zero to one. A value of zero indicates no correlation, and a value of one indicates complete correlation. All values above .41 are indicative of some correlation but the larger the number the greater the extent of correlation.

The first step in the procedure was to reduce the raw data to theoretically more meaningful and parsimonious dimensions. On the basis of a principal components analysis intet-item correlation matrices were "cleaned" by eliminating obviously irrelevant variables. Similarly, those variables with factor loadings below 0.50 on a unidimensional scale, that is, "one in which the eigen value greater than one criterion was employed" (Nunnally, 1967: 292) were eliminated. The author in consultation with Mr. Jeff Bulcock arbitrarily decided to use the factor loading of 0.50 as a cutoff point to enhance the reliability of the scale.

In summary, a factor analysis indicates the number of factors within a set of items by correlating each item with every other item and gives the factor loading of an item for each of its factors. Scales can then be formed to measure each factor by selecting items which have high factor loadings exclusive to that factor.

Career Satisfaction

This scale attempts to measure the satisfaction a teacher feels he receives from teaching. It should be pointed out that the Mitchell (1968) study utilized three scales to measure satisfaction: Career, Professional and Work Satisfaction. This study only utilized the items that comprised the career satisfaction scale. These items are found in Part IV of the questionnaire (see Appendix A). Table 3.2 outlines the results of the factor analysis after the singletons were removed.

Effort

The literature reviewed clearly demonstrated the problems involved in obtaining a measure of teacher productivity. The researcher, recognizing the differing views, decided to use the amount of effort a teacher puts into his work as a measure of teacher productivity. Effort, therefore, for the purpose of this study was defined as the amount of extra time and work a teacher says he is prepared to give to his job. The items used to engender this scale are found in Part V of the questionnaire (see Appendix A). Table 3.4 identifies the items and provides a summary of the factor analysis after the singletons were removed.

Intrinsic Commitment to Teaching

This construct emerged as one which was orthogonal to the career satisfaction variable and was, therefore, added to the list of relevant model variables. It refers to a teacher's intrinsic commitment to the teaching profession. This scale attempted to measure the inherent feelings a person associates with teaching. It refers to the notion that teaching is not a means to an end but rather an end in itself. The particular item clusters identified through factor analysis are located

TABLE 3.2

FACTOR ANALYSIS SCALE 1, CAREER SATISFACTION, UNIDIMENSIONAL

Item*	Factor Loading	Factor Score Coefficient	h2 Communality	Eigen Value
Feel 1	.74	.38	.57	1.97
Feel 2	.76	.38	.58	.95
Feel 3	.53	.27	.39	.87
Feel 5	.65	.33	.55	.47

*See Appendix A, Part IV for a description of the variables.

TABLE 3.3

CORRELATION MATRIX FOR CAREER SATISFACTION ITEMS*

	Feel 2	Feel 3	Feel 4	Feel 5	Mean	S.D.
Feel 1	.48	.23	.21	.24	2.56	.80
Feel 2		.17	.14	.37	2.71	.80
Feel 3			.10	.26	2.39	.76
Feel 4				.10	2.37	.68
Feel 5					2.75	.75

*See Appendix A, Part IV for a description of the variables.

TABLE 3.4

FACTOR ANALYSIS SCALE 2, EFFORT, UNIDIMENSIONAL

Item*	Factor Loading	Factor Score Coefficient	h2 Communality	Eigen Value
Effort 1	.67	.31	.45	2.14
Effort 3	.79	.37	.62	.76
Effort 4	.68	.32	.46	.64
Effort 5	.78	.36	.61	.46

*See Appendix A, Part V for a description of the variables.

TABLE 3.5

CORRELATION MATRIX FOR EFFORT

	Effort 3	Effort 4	Effort 5	Mean	S.D.
Effort 1	.33	.28	.41	3.31	.72
Effort 3		.42	.50	3.49	.79
Effort 4			.31	3.39	1.26
Effort 5				3.37	.75

in Part V of the questionnaire (see Appendix A). Table 3.6 provides a summary of the factor analysis after the singletons were removed.

Self Concept of Teaching Ability

The literature suggests that a person's self concept is a factor that should be considered in respect to productivity. For the purpose of this study self concept of teaching ability (Scta) was measured in terms of a teacher's rating of his ability as compared to that of his colleagues. The teacher was asked to rate himself on such items as: professional training, subject knowledge, communicating skills, etc. A more detailed description of the items is found in Appendix A, Part V. Table 3.8 contains a summary of the factor analysis.

Seniority

Rather than use age, teaching experience and other variables which are generally indicative of seniority as separate control variables, it was thought that it might be possible to construct a viable unidimensional composite which would effectively capture all the variance in the criterion measures attributable to seniority. As can be seen from the high factor loadings, there is a common single factor underlying these items. The negative sign on the first factor loading stems from the fact that age was reverse scored. For weighting purposes, therefore, the sign on the coefficient was ignored. Table 3.10 gives a summary of the factor analysis.

SUMMARY

This chapter was concerned with four separate aspects of the research methodology. The chapter included discussions of the various

TABLE 3.6

FACTOR ANALYSIS SCALE 3, INTRINSIC COMMITMENT TO TEACHING, UNIDIMENSIONAL

Item*	Factor Loading	Factor Score Coefficient	h2 Communality	Eigen Value
Incomt 6	.76	.33	.58	2.29
Incomt 8	.66	.28	.44	.87
Incomt 9	.66	.28	.44	.71
Incomt 10	.59	.26	.35	.65
Incomt 11	.69	.30	.48	.47

*See Appendix A, Part V for full description of variables.

TABLE 3.7

CORRELATION MATRIX FOR INTRINSIC COMMITMENT TO TEACHING

	Incomt 8	Incomt 9	Incomt 10	Incomt 11	Mean	S.D.
Incomt 6	.42	.36	.40	.33	2.66	.93
Incomt 8		.32	.15	.33	2.91	.82
Incomt 9			.21	.35	3.23	.86
Incomt 10				.31	2.66	.92
Incomt 11					2.73	.77

TABLE 3.8

FACTOR ANALYSIS SCALE 4, SELF CONCEPT OF TEACHING ABILITY, UNIDIMENSIONAL

Item*	Factor Loading	Factor Score Coefficient	h2 Communality	Eigen Value
Scta 12	.73	.30	.54	2.46
Scta 13	.75	.30	.56	.63
Scta 14	.65	.27	.43	.70
Scta 15	.68	.28	.46	.48
Scta 16	.69	.28	.48	.33

*See Appendix A, Part V for a description of the variables.

TABLE 3.9

CORRELATION MATRIX FOR SELF CONCEPT OF TEACHING ABILITY

	Scta 13	Scta 14	Scta 15	Scta 16	Mean	S.D.
Scta 12	.66	.28	.28	.30	1.66	.81
Scta 13		.36	.24	.30	2.01	.76
Scta 14			.37	.33	2.42	.71
Scta 15				.52	2.35	.66
Scta 16					2.24	.55

TABLE 3.10

FACTOR ANALYSIS SCALE 5, SENIORITY, UNIDIMENSIONAL

Item	Factor Loading	Factor Score Coefficient	h2 Communality	Eigen Value
Age	-.72	-.33	.52	2.18
Experience	.80	.37	.65	.84
Years with Board	.82	.37	.66	.56
Years in Community	.59	.27	.35	.42

TABLE 3.11

CORRELATION MATRIX FOR SENIORITY

	Experience 2	Years with Board 3	Years in Community 4	Mean	S.D.
Age 1	.49	.40	-.22	7.28	1.68
Experience 2		.53	.26	4.74	1.27
Years with Board 3			.41	3.00	1.48
Years in Community 4				4.01	2.18

aspects of the instruments, the sample, the method of data collection and the development of scales used in later analysis.

A discussion of the statistical analysis and findings will be included in Chapter 4.

CHAPTER 4

ANALYSIS OF DATA, FINDINGS AND DISCUSSION OF THE RESULTS

STATISTICAL TREATMENT AND PRESENTATION OF RESULTS

The analysis was executed in a series of steps. The data were first coded and key-punched to facilitate the utilization of computer analysis center at Philip Place. The Statistical Package for the Social Sciences (SPSS) was the program used due to its flexibility for data analysis. The first analysis consisted of a set of descriptive statistics to give some idea of the basic characteristics of the data. This provided such summary statistics as the mean, standard deviation and variance indicating the variability and dispersion of the variables and measures such as skewness and kurtosis which allowed the researcher to more precisely understand the shape of the distribution. This information is presented in table form in Appendix B.

The second stage consisted of a series of factor analyses for the purpose of reducing the data to a smaller set of factors or components and for the construction of indices to be used as new variables in later analysis. The items used in this phase of the analysis were the nineteen decision-making areas identified in Part I of the questionnaire (see Appendix A). By means of the friction point typology developed by Ponder (1975) (a more detailed discussion of which is included in Chapter

3), the nineteen PDM items on the questionnaire were given an FPR of high (3), medium (2), or low (1). Following the creation of these nineteen new FPR variables a number of factor analyses were undertaken to clean up the correlation matrix by eliminating obviously irrelevant variables. The same procedure was utilized as explained earlier in Chapter 3 under the heading of Scale Development. A principal factor solution of the resultant matrix--Table 4.1--was then rotated obliquely using a Kaiser oblique solution. The factor pattern which emerged is shown in Table 4.2. As can be seen three factors clearly emerged. The three factors were interpreted as:

1. Staff Hiring and Evaluation. This factor concerned the involvement of teachers in the hiring procedures for their school. The teachers also indicated a desire to be involved in the evaluation of self and superiors.
2. Classroom Management. This factor was concerned with the amount of control and autonomy teachers desired in the day-to-day operations of their classrooms.
3. Curriculum. This third factor was concerned with the teacher's role in the implementation and development of the curriculum used in the school.

It should be pointed out that these three areas are not necessarily friction areas with Newfoundland high school teachers now, but they are potential areas where friction can and possibly will arise if teachers are not involved in the decisions concerning them. Appendix C contains the actual number and percentages of teachers who reported either low, medium, or high friction rating for each of the nineteen decision areas. For the purpose of this analysis it was decided that a

TABLE 4.1

CORRELATION MATRIX FOR THE FOURTEEN FRICTION POINT AREAS*

	2	3	4	5	6	7	8	12	13	16	17	18	19	Mean	S.D.
1	.58	.52	.09	.11	-.03	-.01	.08	.01	.09	.06	.14	.12	.14	1.69	.89
2		.53	.13	.14	-.01	.01	.02	-.01	-.03	.07	.07	-.02	.02	1.48	.79
3			.06	.04	-.01	.05	.06	.18	.15	.13	.06	.05	.04	1.72	.89
4				.39	.27	.14	.23	.04	.01	.11	.05	.04	.01	1.17	.52
5					.29	.10	.21	.09	.04	.15	.10	.02	.06	1.22	.60
6						-.33	-.34	-.08	.06	.26	.05	.03	.01	1.31	.70
7							.39	.13	.06	.26	.05	.02	.05	1.40	.72
8								.16	-.10	.24	.02	.04	.02	1.32	.69
12									.64	.06	.23	.46	.41	1.78	.85
13										.11	.20	.45	.49	1.81	.82
16											.06	.12	.08	1.43	.76
17												.53	.43	1.55	.77
18													.63	1.71	.82
19														1.65	.81

*See Appendix A, Part I for a description of each variable.

TABLE 4.2

FRICTION POINT RATING AREAS: PATTERN MATRIX
FROM OBLIQUE ROTATION

Item*	Rotated Factor Loadings 1	2	3	h2 Communality
FPR 1: Determination of the basic outline of the curriculum	.02	-.01	.41	.73
FPR 2: Determination of detailed content of the curriculum	-.03	.01	.40	.70
FPR 3: Determination of texts and instructional material	.02	.01	.37	.61
FPR 4: Determination of way subject matter is presented	-.03	.24	.06	.33
FPR 5: Frequency and method of class testing	.01	.24	.06	.32
FPR 6: Determine method of discipline used in classroom	.01	.32	.06	.52
FPR 7: Determine class placement of pupils	.02	.30	.01	.40
FPR 8: Determine pupil promotion	.02	.27	.01	.84
FPR 12: Evaluation of administrative personnel	.25	.05	.01	.49
FPR 13: Evaluation of central office personnel	.27	.01	.01	.54
FPR 16: Determine school rules	.03	.22	.02	.57
FPR 17: Appointment of teachers	.21	.01	.03	.37
FPR 18: Appointment of supervisory personnel	.29	-.02	-.02	.37
FPR 19: Appointment of central office personnel	.28	-.02	-.01	.69

*See Appendix A, Part I for description of variables.

Factor Correlations

	1	2	3
1	1.0	.10	.10
2		1.0	.11
3			1.0

high FPR dissent area would be any area indicated by more than twenty percent of the respondents. However, it should be pointed out that this was an arbitrary decision and thus if we used fifteen percent as an indicator there would be more dissent areas. Table 4.2 is a factor matrix for the friction areas; it contains the factor loading and communality for each item.

The next phase of the analysis consisted of a condescriptive subprogram run on the scales which had been developed to this point. The purpose of this program was to determine if the variables were distributed normally. A normal distribution would have kurtosis and skewness which approaches zero. It should be pointed out that the base line of comparison for kurtosis and skewness is zero. Using this criterion, Table 4.3 indicates that the variables are normally distributed with the exception of self concept of teaching ability (Scta).

The final phase of the analysis consisted of computing Pearson product-moment correlation for the variables constructed. It must be pointed out that this was the final phase of the analysis because the results of the bivariate analyses were negative. If the zero-order correlations had been significant it would have been necessary to undertake regression analysis.

The zero-order correlations obtained from the Pearson product-moment correlations were used to measure the strength of relationship between two interval-level variables. The tables which follow contain the summary statistics generated by the Pearson correlation. Each potential friction area is taken in turn and the relationship between it and each of the variables is shown. Using .05 as the significance level, it can be seen in Table 4.4 that only two variables have a significant effect

TABLE 4.3

VARIABLE DISPERSION

Variable	Variance	Mean	S.D.	Kurtosis	Skewness	Range
Effort	.99	-.02	.99	.33	.26	5.3
Career	.96	-.05	.98	-.13	.16	5.9
Scta	.99	.03	.99	3.01	1.61	5.3
Incomt	1.01	-.01	1.01	-.25	-.15	5.1
Senior	.49	.01	.71	-.35	-.40	3.4
Sex	.19	1.27	.44	-.89	1.06	1.0
Grade	1.06	5.44	1.03	.10	-.44	5.0
Staff	.95	.01	.98	-.82	.53	3.2
Class	.97	.07	.99	1.39	1.45	4.3
Curric	.99	.01	.99	-.87	.73	2.7

TABLE 4.4

RELATIONSHIP BETWEEN CURRICULUM FPR AREA
AND TEACHER RELATED FACTORS

Variable	Pearson Correlation	Significance Level	Case Base	$\bar{X}$	S.D.
Effort	.030	.312	261	-0.017	.99
Career	.189	.001	265	-0.048	.97
Scta	.003	.481	257	0.034	.99
Incomt	-.029	.321	260	0.009	1.00
Senior	.138	.011	271	0.012	.71
Sex	.013	.415	273	1.267	.44
Grade	.009	.437	272	5.4	1.02

on the friction area "curriculum;" they are "career" and "seniority." The other five scales are not statistically significant at the .05 level.

Table 4.5 indicates the relationship between "staff hiring and evaluation" and the other variables. Only one variable approaches the .05 level of significance and that is Self Concept of Teaching Ability (Scta).

Table 4.6 reveals the relationship between "classroom management" and the seven variables. However, only three meet the .05 level of significance; these are Scta, Seniority, and Sex.

DISCUSSION OF THE FINDINGS

The study generated two main hypotheses:

1. An inverse relationship exists between Friction Point Rating (FPR) identified by teachers and their Job Satisfaction.
2. An inverse relationship exists between Friction Point Rating (FPR) and teacher productivity.

The results indicated that both hypotheses had to be rejected. The problem now becomes one of attempting an ex post facto explanation. Bearing in mind that the hypotheses were rejected, it must be pointed out that this in itself does not reflect upon the potential value of the study. The underlying assumption in research of this nature is to validate, refute, or even modify theory as advanced. The very fact that the hypotheses were rejected causes the study to take on a new dimension. During the inductive stage a number of hypotheses were generated and a number of questions posed. The purpose of this study was to test these relationships and suggest implications for the Newfoundland setting. Due to the nature of the findings the researcher is now compelled to re-examine

TABLE 4.5

RELATIONSHIP BETWEEN STAFF APPOINTMENT AND EVALUATION FPR AREA AND TEACHER RELATED FACTORS

Variable	Pearson Correlation	Significance Level	Case Base	$\bar{X}$	S.D.
Effort	-.015	.403	261	-0.017	.99
Career	.009	.439	265	-0.048	.97
Scta	.098	.058	257	0.034	.99
Incomt	-0.012	.419	260	0.009	1.00
Senior	0.017	.386	271	0.012	.71
Sex	0.082	.086	273	1.267	.44
Grade	-0.0572	0.174	272	5.4	1.02

TABLE 4.6

RELATIONSHIP BETWEEN CLASSROOM MANAGEMENT FPR AREA AND TEACHER RELATED FACTORS

Variable	Pearson Correlation	Significance Level	Case Base	$\bar{X}$	S.D.
Effort	-.026	.335	261	-.017	.99
Career	.0147	.406	265	-.048	.97
Scta	.2018	.001	257	.034	.99
Incomt	-.0093	.440	260	.009	1.00
Senior	-.1334	.014	271	.012	.71
Sex	.1732	.002	233	.267	.44
Grade	-.0471	.219	272	5.4	1.02

the theory, and if possible suggest reasons for such findings. Therefore, in this deductive phase, a new model may emerge which can be the basis of further research in the area.

Before an explanation of the findings is possible, a re-examination of the theory and its supportive studies is necessary. The theory suggests that if organizations involve their employees in the decision-making process they can expect a number of positive organizational outcomes, some of which have been identified as increased productivity (Lawrence, 1955), increased satisfaction (Belasco and Alutto, 1972), greater acceptance of decisions (Radke, 1947), and a host of other benefits such as increased innovation and greater responsibility to mention only a few. We must also consider the base from which the theory evolved and the research design of the supportive studies.

The theory originated in the early 1920's and understandably the industrial setting was the milieu in which much of the research was carried out. Therefore, it is little wonder that the research producing the most dramatic findings has been reported in this area. What must be questioned is whether or not the same theory, which on occasion applies to industrial workers, can be conveniently applied to teachers. The differences existing between these two groups are many. The industrial worker is often an isolated cog in the organizational wheel who is only involved in one small aspect of production. It is possible that he does not see his contribution as an integral part of the finished product. Therefore, dissatisfaction with management may drastically affect his level of production.

In applying this theory to education we must assume that teachers will react as do industrial workers and this study seems to indicate the

questionable nature of this assumption. Teachers do desire control over their environment. This is shown quite clearly in the emergence of the three friction point areas. However, it is here that the similarity ends. The teacher, even though he desires more involvement in certain areas, will not allow this to affect his feeling of satisfaction or the amount of effort he puts into his job. Unlike the industrial worker, who in some instances sees the curtailment of productivity as a means of getting to management, teachers apparently may not jeopardize the education of their clientele by decreasing their effort. It is supported by the findings of this study that teachers see their work as intrinsically rewarding in itself. Mitchell (1968) also found this in his Alberta study. Additionally, in the industrial setting a well defined measure of productivity can be arrived at. The point is that although the studies support the notion of PDM, the outcome (increased productivity) could be caused by other variables or a combination of variables. For example, personal speculation is that when workers perceive management as being happy they (the workers) may feel more secure in their jobs, thereby removing the stress which may lead to decreased job satisfaction. In this example it is evident that the outcomes, increased satisfaction and productivity were not direct results of the PDM process, but rather indirectly mediated by it. For a fuller discussion of causal, mediating and end results, see Likert (1961).

To simply state that it is inappropriate to transfer the PDM theory from the industrial setting to the educational sector could be naive, simplistic and presumptive. It must be remembered that there have been studies in the educational sector which support the hypothesized relationships (Chase, 1953; Miklos, 1970; and Johansen, 1967). However,

the argument presented here is a plausible one and bears at least cursory consideration.

Studies involving the industrial worker were reviewed and a possible alternative explanation presented. However, the researcher is still faced with the problem of explaining the positive results in the educational sector using PDM theory. At least two explanations are possible to account for these findings. First, one could take a rather more dubious stand and suggest that the outcomes were nothing more than random occurrences. This is supported by the relative scarcity of research data in this area. Thus, this possible explanation should not be minimized. However, a more positive view could be that the setting and purpose of the study influenced the outcomes. For example, the study by Johansen (1967) was concerned with only one aspect of teacher involvement and this was in the area of curriculum. He concluded that PDM increased the possibility of implementing curriculum decisions. This suggests the potential importance of the PDM theory and its effect upon teachers. However, it is necessary to remember that in the Johansen study only one aspect of the teaching perspective was involved, illustrating the selectivity of the procedure. It may then be suggested that this study on Newfoundland high school teachers, by its very nature, was inadequate to test this rather complex theory. It examined PDM theory over a wide spectrum of decision areas and likewise in a number of different schools (twenty-five). It is quite possible that the situation between schools varies to such a degree that instead of a microcosmic view of teaching, a macrocosmic one of the individual school settings is necessary. As Harap (1959) suggests, it is impossible to determine teacher job satisfaction in every case. Therefore, it may also be

impossible to determine teacher productivity in such a general manner. It may be necessary to look at individual schools and then only generalize to that school setting. The underlying assumption has been that all teachers will react in a similar manner. This may be erroneous. Many other factors such as personality, school administration, and community influence may need to be taken into account.

OTHER EMERGING RELATIONSHIPS

Although the proposed relationships were not substantiated there were some interesting developments. It was indicated that a person's effort is strongly related to his intrinsic commitment to teaching (Incomt). The relationship was significant at the .001 level.

There were two other relationships which should be considered. One existed between the FPR area of curriculum and a teacher's satisfaction. This relationship was significant at the .05 level and suggests that if a person is satisfied in his career then he will want participation in the area of curriculum. However, there was no indication that the relationships were transferable to other areas. Nevertheless, the author is still faced with the "cause-effect" problem. There is a relationship but the direction of it is unclear.

The third significant relationship existed between self concept of teaching ability (Scta) and the FPR area classroom management. This perhaps suggests that if a person has a high self concept he will probably desire autonomy in the classroom setting. Again, however, it is unclear if high self concept causes desire for autonomy or classroom autonomy enhances a person's self concept. Therefore, further research appears necessary.

CONCLUSIONS

The findings of this study indicate that the PDM theory is not totally supported in the Newfoundland high school setting. The author has attempted to explain these findings in light of the theory and similar studies. It may be that at this particular time Newfoundland high school teachers are not representative of teachers generally, due to the relatively healthy organizational climate which presently exists.

It also bears consideration that the teaching profession by its very nature is unlike others. Teachers, even in a rigid system, have autonomy in their own classrooms. Furthermore, teachers today have reached the stage of professionalism where they can omit a text from the program of studies if they feel it is inadequate. This type of autonomy may be unmatched in the industrial setting.

Finally, the possibility of any of the significant relationships being random occurrences must not be minimized.

CHAPTER 5

SUMMARY

This chapter presents a summary of the purpose of the study, the main findings, the conclusions and the recommendations for further research.

THE PURPOSE OF THE STUDY

The purpose of this study was to accumulate data pertaining to Newfoundland teachers in reference to participative decision-making (PDM). In the past few years there have been some studies concerning the Newfoundland elementary teachers: Inkpen (1974), Ponder (1974), and Ponder and Bulcock (1975). To date, very few studies have gathered relevant data pertaining to the Newfoundland high school teacher. This study will provide much needed information for administrators by identifying areas where teacher participation will have the most influence in terms of job satisfaction and productivity.

More specifically, the purpose of this study was to determine the relationship between participation in educational decision making, teacher productivity and teacher job satisfaction as it relates to Newfoundland high school teachers.

DESIGN OF THE STUDY

Twenty-five randomly selected schools along the east coast of Newfoundland were selected. This consisted of 358 teachers; 280, or 78.2

percent, responded to a seven-part questionnaire which formed the data base.

Principal component factor analysis was used to develop the appropriate scales. Pearson correlation was used to determine if there were any statistically significant relationships.

MAIN FINDINGS

The study produced four main findings: They are:

1. There were three friction point areas identified: Classroom Management, Curriculum, and Staff Hiring and Evaluation.
2. A teacher's effort is significantly related to his intrinsic commitment to teaching.
3. A significant relationship exists between the friction point rating in the area of curriculum and a person's satisfaction.
4. A significant relationship exists between a person's self concept of his teaching ability and the friction point rating and classroom management.

CONCLUSIONS

The results of this study suggest that the theory as tested is not supported in the Newfoundland context. There were three friction areas identified but all hypotheses were rejected. The underlying assumption now is that it is unwise to attempt to apply a theory developed in the industrial setting and expect it to be further supported in the educational sector.

One could speculate that studies reporting favorable outcomes occur randomly and that the theory does not apply to education. The

environment and working conditions are too different to expect similar reactions from industrial workers and teachers. However, one must also bear in mind that part of the explanation could reside in the possible failure of the measures used to discriminate and identify relationships which might indeed exist.

The results suggest that teachers do desire autonomy in certain select areas. However, to give teachers PDM and expect significant improvements in job satisfaction or productivity would be rather naive. Teachers collectively recognize that certain decisions are made by the administration and are willing to accept them. It has been suggested by some that the high percentage of women in the teaching force causes teachers to be less militant; however, this study showed no significant difference in the way the sexes felt or acted.

It is the feeling of the author that it is very difficult and perhaps dangerous to indicate areas where teachers should participate. It is evident from this study that the degree of involvement desired varies with the activity. Some teachers may be alienated if forced to participate in decision-making activities. Furthermore, teachers could resent the fact that administrators desire teachers to make decisions which they feel are the province of the administrators themselves.

RECOMMENDATIONS FOR FURTHER RESEARCH

1. Additional research should be conducted to determine if similar findings occur in other sectors of the teaching force.
2. Further research is necessary to identify other friction point areas, or areas where some teachers desire significant participation.

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APPENDIX A

THE RESEARCH INSTRUMENT

Dear Fellow Teacher,

The purpose of this questionnaire is to provide data regarding the level of participation of Newfoundland School Teachers in educational decision-making. We are primarily concerned with the degree to which teachers feel they are involved as compared with the degree these same teachers feel they should be involved in the decision-making process. In addition, we are concerned with the relative importance attached to selected decision-making areas in education. Questions pertaining to job motivation and career satisfaction are also included, as well as a general information section.

It is our hope that you will cooperate with us by completing the attached confidential and anonymous questionnaire which will help us understand your position on these matters.

I thank you for your cooperation.

Yours truly,

Gregory Penney

PART I

Please indicate by marking an X in the bracket containing the appropriate number, the extent to which you feel you are PRESENTLY INVOLVED in decision-making related to the areas listed below.

Scale:

1 - no involvement in decision-making (teachers have no input whatsoever to decision-making)

2 - low level of involvement in decision-making (teachers' input tends to be minimal)

3 - medium level of involvement in decision-making (teachers have equal input with other individuals or groups in the authority structure)

4 - high level of involvement in decision-making (teachers have the major input)

5 - exclusive involvement in decision-making (teachers have complete freedom to make decisions)

The scale used reflects a continuum from no involvement whatsoever to exclusive involvement and may be represented as follows:

1	2	3	4	5
No Involvement	Low (Minimal)	Medium (Equal)	High (Major)	Exclusive (Autonomous)

EXAMPLE:

Selection of student prefects ----------(1) (2) (X) (4) (5)

In the above example the respondent marked an X over the number 3 because he felt his PRESENT INVOLVEMENT in decision-making was equal with other individuals or groups in the authority structure.

1 2 3

ID [ ]

Curriculum Planning and Adaptation

PRESENT INVOLVEMENT

1. Determination of the basic outline of the curriculum ---------- (1) (2) (3) (4) (5) 4

2. Determination of the detailed content of the curriculum ---------- (1) (2) (3) (4) (5) 5

3. Determination of the texts and instructional material for the curriculum ---------- (1) (2) (3) (4) (5) 6

Classroom Management

4. Determination of the way subject matter is presented in class ---------- (1) (2) (3) (4) (5) 7

5. Determination of the frequency and methods of classroom testing --------- (1) (2) (3) (4) (5) 8

6. Determination of the method of discipline to be used in the classroom ---------- (1) (2) (3) (4) (5) 9

Arrangement of the School Instructional Program

7. Determination of the class placement of pupils ---------- (1) (2) (3) (4) (5) 10

8. Determination of the promotion of pupils ---------- (1) (2) (3) (4) (5) 11

9. Determination of the allocation of money to teachers for instructional aids and equipment ---------- (1) (2) (3) (4) (5) 12

Evaluation

10. The evaluation of my performance as a teacher ---------- (1) (2) (3) (4) (5) 13

11. The evaluation of the performance of my colleagues as teachers ---------- (1) (2) (3) (4) (5) 14

12. The evaluation of supervisory and administrative personnel within the school ---------- 15 (1) (2) (3) (4) (5)

13. The evaluation of central office personnel such as consultants, supervisors, and the superintendent --- 16 (1) (2) (3) (4) (5)

General School Organization

14. Determination of the teaching load and other duties of teachers ---------- 17 (1) (2) (3) (4) (5)

15. Determination of the arrangements for parents to discuss matters concerning their children's schooling ---------- 18 (1) (2) (3) (4) (5)

16. Determination of school rules and regulations for the general student body ---------- 19 (1) (2) (3) (4) (5)

Staffing

17. The appointment of teachers to your staff ---------- 20 (1) (2) (3) (4) (5)

18. The appointment of supervisory personnel such as vice-principal or principal in your school ---------- 21 (1) (2) (3) (4) (5)

19. The appointment of central office personnel such as consultants, supervisors, and the district superintendent ---------- 22 (1) (2) (3) (4) (5)

PART II

Please indicate by marking an X in the bracket containing the appropriate number, the extent to which you feel you would PREFER TO BE INVOLVED in decision-making related to the areas listed below.

Scale:

1 - no involvement in decision-making (teachers have no input whatsoever to decision-making)

2 - low level of involvement in decision-making (teachers' input tends to be minimal)

3 - medium level of involvement in decision-making (teachers have equal input with other individuals or groups in the authority structure)

4 - high level of involvement in decision-making (teachers have the major input)

5 - exclusive involvement in decision-making (teachers have complete freedom to make decisions)

The scale used reflects a continuum from no involvement whatsoever to exclusive involvement and may be represented as follows:

1	2	3	4	5
No Involvement	Low (Minimal)	Medium (Equal)	High (Major)	Exclusive (Autonomous)

EXAMPLE:

Selection of student prefects ----------(1) (2) (3) (4) (5)

In the above example the respondent marked an X over the number 3 because he felt his PREFERRED INVOLVEMENT in decision-making was equal with other individuals or groups in the authority structure.

Curriculum Planning and Adaptation

PREFERRED INVOLVEMENT

1.	Determination of the basic outline of the curriculum	(1)	(2)	23 (3)	(4)	(5)
2.	Determination of the detailed content of the curriculum	(1)	(2)	24 (3)	(4)	(5)
3.	Determination of the texts and instructional material for the curriculum	(1)	(2)	25 (3)	(4)	(5)

Classroom Management

4.	Determination of the way subject matter is presented in class	(1)	(2)	26 (3)	(4)	(5)
5.	Determination of the frequency and methods of classroom testing	(1)	(2)	27 (3)	(4)	(5)
6.	Determination of the method of discipline to be used in the classroom	(1)	(2)	28 (3)	(4)	(5)

Arrangement of the School Instructional Program

7.	Determination of the class placement of pupils	(1)	(2)	29 (3)	(4)	(5)
8.	Determination of the promotion of pupils	(1)	(2)	30 (3)	(4)	(5)
9.	Determination of the allocation of money to teachers for instructional aids and equipment	(1)	(2)	31 (3)	(4)	(5)

Evaluation

10.	The evaluation of my performance as a teacher	(1)	(2)	32 (3)	(4)	(5)
11.	The evaluation of the performance of my colleagues as teachers	(1)	(2)	33 (3)	(4)	(5)
12.	The evaluation of supervisory and administrative personnel within the school	(1)	(2)	34 (3)	(4)	(5)

13. The evaluation of central office personnel such as consultants, supervisors, and the superintendent ------- (1) (2) (3) (4) (5) 35

General School Organization

14. Determination of the teaching load and other duties of teachers --------- (1) (2) (3) (4) (5) 36

15. Determination of the arrangements for parents to discuss matters concerning their children's schooling ---------- (1) (2) (3) (4) (5) 37

16. Determination of school rules and regulations for the general student body ---------- (1) (2) (3) (4) (5) 38

Staffing

17. The appointment of teachers to your staff ---------- (1) (2) (3) (4) (5) 39

18. The appointment of supervisory personnel such as the vice-principal or principal in your school ---------- (1) (2) (3) (4) (5) 40

19. The appointment of central office personnel such as consultants, supervisors, and the district superintendent ---------- (1) (2) (3) (4) (5) 41

PART III

Please indicate by marking an X in the bracket containing the appropriate number, the RELATIVE IMPORTANCE you would attach to each of the decision-making areas. Again the scale used should be seen as a continuum.

1	2	3	4	5
Not at all Important	Slightly Important	Average Importance	Very Important	Priority Importance

EXAMPLE:

Selection of student prefects ----------(1) (2) ( ) (4) (5)

In the above example the respondent marked an X in the bracket over the number 3 because he felt that his involvement in the selection of student prefects was of average importance.

Curriculum Planning and Adaptation

RELATIVE IMPORTANCE

1. Determination of the basic outline of the curriculum ---------- (1) (2) 42 (3) (4) (5)

2. Determination of the detailed content of the curriculum ---------- (1) (2) 43 (3) (4) (5)

3. Determination of the texts and instructional material for the curriculum ---------- (1) (2) 44 (3) (4) (5)

Classroom Management

4. Determination of the way subject matter is presented in class ---------- (1) (2) 45 (3) (4) (5)

5. Determination of the frequency and methods of classroom testing ---------- (1) (2) 46 (3) (4) (5)

6. Determination of the method of discipline to be used in the classroom ---------- (1) (2) 47 (3) (4) (5)

Arrangement of the School Instructional Program

7. Determination of the class placement of pupils ---------- (1) (2) 48 (3) (4) (5)

8. Determination of the promotion of pupils ---------- (1) (2) 49 (3) (4) (5)

9. Determination of the allocation of money to teachers for instructional aids and equipment ---------- (1) (2) 50 (3) (4) (5)

Evaluation

10. The evaluation of my performance as a teacher ---------- (1) (2) 51 (3) (4) (5)

11. The evaluation of the performance of my colleagues as teachers ---------- (1) (2) 52 (3) (4) (5)

12. The evaluation of supervisory and administrative personnel within the school ---------- (1) (2) 53 (3) (4) (5)

13. The evaluation of central office personnel such as consultants, supervisors, and the superintendent ------- (1) (2) (3) (4) (5) 54

General School Organization

14. Determination of the teaching load and other duties of teachers---------- (1) (2) (3) (4) (5) 55

15. Determination of the arrangements for parents to discuss matters concerning their children's schooling ---------- (1) (2) (3) (4) (5) 56

16. Determination of school rules and regulations for the general student body ---------- (1) (2) (3) (4) (5) 57

Staffing

17. The appointment of teachers to your staff ---------- (1) (2) (3) (4) (5) 58

18. The appointment of supervisory personnel such as the vice-principal or principal in your school ---------- (1) (2) (3) (4) (5) 59

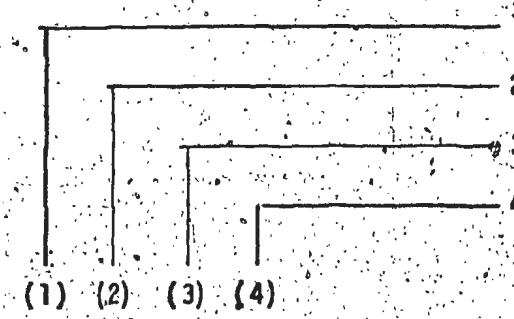
19. The appointment of central office personnel such as consultants, supervisors, and the district superintendent ---------- (1) (2) (3) (4) (5) 60

END CARD #1 61

1

PART IV

Please answer the question, "How do you feel," for each of the items found below. Indicate your choice by marking an X over the appropriate number according to the following scale:



EXAMPLE:

Q. How do you feel about the following items?

A. I feel ... with (followed by the item)

1.	The top salary available to teachers-----	(1)	(2)	(3)	(4)
2.	My chances for receiving salary increases without promotion ----------	(1)	(2)	(3)	(4)
3.	Amount of progress which I am making in my professional career ----------	(1)	(2)	(3)	(4)
4.	The capabilities of most of the people who are in teaching ----------	(1)	(2)	(3)	(4)
5.	The possibilities for a teacher advancing to a position of greater responsibility in teaching ----------	(1)	(2)	(3)	(4)
6.	The level of professional standards maintained by most teachers----------	(1)	(2)	(3)	(4)
7.	The academic performance of the students in my present school ----------	(1)	(2)	(3)	(4)

PART V

Please indicate by marking an X in the bracket opposite your choice of response.

1. In an average week the number of hours spent at preparation, at evaluation and advising students as compared to the time spent by other teachers is: 8

- Much less than others ---------- (1)
- A little less than others ---------- (2)
- About the same as others ---------- (3)
- A little more than most others ---------- (4)
- Much more than others ---------- (5)

2. The amount of time you spend reading professional material in an effort to develop new ideas to use in your classroom as compared with other teachers is: 9

- Much less than others ---------- (1)
- A little less than others ---------- (2)
- About the same as others ---------- (3)
- A little more than others ---------- (4)
- Much more than others ---------- (5)

3. Some people are completely involved in their job--they are absorbed in it night and day. For others, their job is simply one of several interests. How involved do you feel in your job? 10

- Very little involved; my other interests are more absorbing ---------- (1)
- Slightly involved ---------- (2)
- Moderately involved; my job and my other interests are equally absorbing to me ---------- (3)
- Strongly involved ---------- (4)
- Very strongly involved ---------- (5)

4. How often do you do extra work for your job which really is not required of you?

11

About once a month or less ---------- (1)
About once a week ---------- (2)
Once every few days ---------- (3)
Several times a week ---------- (4)
Almost every day ---------- (5)

5. Would you say you work harder, less hard, or about the same as other people doing your work?

12

Much less than others ---------- (1)
A little less hard than most others ---------- (2)
About the same as most others ---------- (3)
A little harder than most others ---------- (4)
Much harder than most others ---------- (5)

6. If I inherited so much money that I did not have to work, I would still take up a career in teaching

13

Strongly disagree ---------- (1)
Disagree with reservations ---------- (2)
Agree but with reservations ---------- (3)
Strongly agree ---------- (4)

7. I would be satisfied if a son of mine when he reaches my age were in the same kind of work I am in now.

14

Strongly agree ---------- (1)
Agree but with reservations ---------- (2)
Disagree but with reservations ---------- (3)
Strongly disagree ---------- (4)

8. Teaching is one of the most satisfying aspects of my life

15

Strongly disagree ---------- (1)
Disagree but with reservations ---------- (2)
Agree but with reservations ---------- (3)
Strongly agree ---------- (4)

9. To me teaching is just a way of making money.

16

Strongly agree ---------- (1)
Agree but with reservations ---------- (2)
Disagree with reservations ---------- (3)
Strongly disagree ---------- (4)

10. I have sometimes regretted going into teaching.

17

Strongly agree ---------- (1)
Agree but with reservations ---------- (2)
Disagree with reservations ---------- (3)
Strongly disagree ---------- (4)

11. I enjoy my spare time activities much more than my work as a teacher.

18

Strongly agree ---------- (1)
Agree but with reservations ---------- (2)
Disagree with reservations ---------- (3)
Strongly disagree ---------- (4)

12. My academic background in comparison with university professors is.

19

Not as good as ---------- (1)
Equal to or about the same as ---------- (2)
Slightly better than ---------- (3)
Much better than ---------- (4)

13. My qualifications in comparison with those of my superiors are.

20

Not as good as ---------- (1)
Equal to or about the same as ---------- (2)
Slightly better than ---------- (3)
Much better than ---------- (4)

14. Your rating of your own knowledge in your subject area as compared with your colleagues in the same area is.

21

Not as good as ---------- (1)
Equal to or about the same as ---------- (2)
Slightly better than ---------- (3)
Much better than ---------- (4)

15. The rapport I have with my students as compared with the rapport my colleagues have with the same students is.

22

Not as good as ---------- (1)
About the same as ---------- (2)
Better than ---------- (3)
Much better than ---------- (4)

16. The skills I possess in communicating knowledge and different concepts to my students in comparison with my colleagues is.

23

Not as developed as ---------- (1)
About the same as ---------- (2)
Slightly better than ---------- (3)
Much better than ---------- (4)

17. How hard are you willing to work in order to become a better teacher.

24

Not at all ---------- (1)
A minimum amount ---------- (2)
An average amount ---------- (3)
Very hard ---------- (4)

18. How competent do you think you are to teach?

25

Very incompetent ---------- (1)
Slightly competent ---------- (2)
Competent ---------- (3)
Very competent ---------- (4)

19. What is your evaluation of teaching as a profession at the present time?

26

Very unfavourable ---------- (1)
Unfavourable ---------- (2)
Favourable ---------- (3)
Very favourable ---------- (4)

20. Do you feel that there are circumstances in which a strike would be a legitimate means of collective action for the members of the Newfoundland Teachers' Association?

27

Definitely yes ---------- (1)
Probably yes ---------- (2)
Probably no ---------- (3)
Definitely no ---------- (4)

21. Many teachers today find that there is a demand placed on their time with regard to meetings--in regard to N.T.A. branch meetings, do you

28

Attend every meeting ---------- (1)
Attend most meetings ---------- (2)
Seldom attend meetings ---------- (3)
Never attend meetings ---------- (4)

22. Would you, given the opportunity, serve on a committee sponsored by the N.T.A.

29

Enthusiastic about serving ---------- (1)
Participate with reservations ---------- (2)
Participate reluctantly ---------- (3)
Refuse to participate ---------- (4)

PART VI

Please indicate the relevant personal information by placing an X in the appropriate bracket to the right.

1. Year of birth. 30

1900 or before	(1)
1915 - 1919	(2)
1920 - 24	(3)
1925 - 29	(4)
1930 - 34	(5)
1935 - 39	(6)
1940 - 44	(7)
1945 - 49	(8)
1950 or later	(9)

2. Sex. 31

Male	(1)
Female	(2)

3. Teaching Experience. 32

None (first year teaching)	(1)
One year	(2)
Two years	(3)
Three to five years	(4)
Six to ten years	(5)
More than ten years	(6)

4. How long have you been employed in your present school.

33

1 year or less	(1)
2 - 3 years	(2)
4 - 6 years	(3)
7 - 9 years	(4)
10 - 14 years	(5)
15 - 19 years	(6)
20 - 29 years	(7)
30 years or more	(8)

5. How long have you been resident in your present community.

34

1 year or less	(1)
2 - 3 years	(2)
4 - 6 years	(3)
7 - 9 years	(4)
10 - 14 years	(5)
15 - 19 years	(6)
20 - 29 years	(7)
30 years or more	(8)

END CARD #2

2

APPENDIX B

VARIABLE FREQUENCIES

APPENDIX B

DESCRIPTION OF VARIABLE FREQUENCIES

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
ACTUAL PARTICIPATION IS 1 to IS 19	IS 1	Curriculum Outline	2.457	1.173	-0.741	0.399	4	1	5
	IS 2	Curriculum Content	2.826	1.181	-0.888	0.127	4	1	5
	IS 3	Curriculum Text, etc.	2.440	1.165	-0.559	0.519	4	1	5
	IS 4	Subject Matter Pres.	4.198	1.002	2.096	-1.522	4	1	5
	IS 5	Meth. Class Test	3.924	0.990	0.189	-0.838	4	1	5
	IS 6	Discipline in Class	3.681	1.044	-0.131	-0.620	4	1	5
	IS 7	Pupil Placement	2.770	1.070	-0.534	0.096	4	1	5
	IS 8	Promotion of Pupils	2.982	0.917	-0.184	-0.330	4	1	5
	IS 9	Money Allocation	2.036	0.923	-0.121	0.596	4	1	5
	IS 10	Teacher Evaluation	2.394	1.085	-0.644	0.273	4	1	5
	IS 11	Colleague Performance	1.631	0.881	0.529	1.238	4	1	5
	IS 12	Superior's Evaluation	1.542	0.874	1.431	1.490	4	1	5
	IS 13	Central Office Evaluation	1.494	0.898	2.042	1.727	4	1	5
	IS 14	Teacher Load	1.967	0.964	0.307	0.886	4	1	5
	IS 15	Parent Discussion	2.940	0.910	-0.166	0.028	4	1	5
	IS 16	Determine Sch. Rule	2.694	0.946	-0.265	0.004	4	1	5

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
	IS 17	Appointments	1.443	0.892	3.414	2.051	4	1	5
	IS 18	Appointment of Super	1.373	0.829	4.788	2.342	4	1	5
	IS 19	Appointment of Central Office	1.380	0.890	3.512	2.208	4	1	5
PREFERRED PARTICIPATION Ought 1 to Ought 19	Ought 1	Curriculum Outline	3.444	0.883	-0.098	-0.321	4	1	5
	Ought 2	Curriculum Content	3.531	0.913	0.273	-0.609	4	1	5
	Ought 3	Curriculum Test, etc.	3.620	0.882	0.439	-0.624	4	1	5
	Ought 4	Subject Matter Pres.	4.275	0.802	0.872	-1.084	4	1	5
	Ought 5	Method of Class Test	4.135	0.880	0.253	-0.875	4	1	5
	Ought 6	Discipline in Class	4.080	0.765	0.610	-0.674	4	1	5
	Ought 7	Pupil Placement	3.413	0.855	0.479	-0.410	4	1	5
	Ought 8	Promotion of Pupil	3.571	0.795	0.255	-0.211	4	1	5
	Ought 9	Money Allocation	3.333	0.828	0.796	-0.296	4	1	5
	Ought 10	Teacher Evaluation	3.213	0.845	0.930	-0.309	4	1	5
	Ought 11	Colleague Performance	2.445	1.112	-0.796	0.203	4	1	5
	Ought 12	Superior's Evaluation	2.810	1.031	-0.376	-0.017	4	1	5

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
	Ought 13	Central Office Evaluation	2.807	1.030	-0.353	-0.030	4	1	5
	Ought 14	Teacher Load	3.244	0.825	0.612	-0.399	4	1	5
	Ought 15	Parent Discussion	3.391	0.744	0.743	-0.075	4	1	5
	Ought 16	Determine Sch. Rules	3.380	0.735	0.496	-0.114	4	1	5
	Ought 17	Appointment of Teacher	2.487	1.061	-0.731	0.154	4	1	5
	Ought 18	Appointment of Super.	2.610	1.010	-0.757	-0.087	4	1	5
	Ought 19	Appointment of Central Office	2.493	1.090	-0.917	0.113	4	1	5
RELATIVE IMPORTANCE OF THE DECISIONAL AREA	IMP 1	Curriculum Outline	3.841	.747	.325	-0.700	4	1	5
	IMP 2	Curriculum Content	3.859	0.969	-0.227	-0.623	4	1	5
	IMP 3	Curriculum Text etc.	3.889	0.902	0.194	-0.663	4	1	5
	IMP 4	Subject Matter Pres.	4.207	0.799	1.257	-0.996	4	1	5
	IMP 5	Method of Class Test	3.967	0.797	0.454	-0.647	4	1	5
	IMP 6	Discipline in Class	4.093	0.735	0.445	-0.541	4	1	5
	IMP 7	Pupil Placement	3.622	0.848	0.191	-0.294	4	1	5
	IMP 8	Promotion of Pupil	3.833	0.776	-0.220	-0.181	4	1	5

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
	IMP 9	Money Allocation	3.454	0.882	-0.145	-0.038	4	1	5
	IMP 10	Teacher Evaluation	3.716	0.846	1.031	-0.748	4	1	5
	IMP 11	Colleague Performance	3.037	1.155	1.469	0.363	4	1	5
	IMP 12	Superior's Evaluation	3.209	1.082	-0.489	-0.226	4	1	5
	IMP 13	Central Office Evaluation	3.090	1.149	-0.700	-0.132	4	1	5
	IMP 14	Teacher Load	3.558	0.894	0.196	-0.486	4	1	5
	IMP 15	Parent Discussion	3.494	0.820	0.655	-0.514	4	1	5
	IMP 16	Deter. School Rules	3.581	0.783	0.454	-0.432	4	1	5
	IMP 17	Appointment of Teacher	2.784	1.093	-0.900	0.008	4	1	5
	IMP 18	Appointment of Super.	2.974	1.150	-0.859	-0.038	4	1	5
	IMP 19	Appointment of Central Office	2.761	1.178	-0.844	0.085	4	1	5
HOW DO	FEEL 1	Top Salary	2.563	0.803	-0.365	0.266	2	1	3
YOU FEEL	FEEL 2	Salary Increases	2.718	0.805	-0.730	0.075	2	1	3
ITEMS 1 TO 7	FEEL 3	Career Progress	2.395	0.757	-0.147	0.435	3	1	4
	FEEL 4	Colleagues Capabilities	2.375	0.684	0.411	0.352	3	1	4

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
	FEEL 5	Teacher Advancement	2.759	0.755	-0.583	0.220	3	1	4
	FEEL 6	Professional Status	2.528	0.689	0.053	0.654	3	1	4
	FEEL 7	Performance of Students	2.772	0.791	-0.846	0.108	3	1	4
	SATIS 1		3.310	0.717	0.791	0.442	4	1	5
	SATIS 2		3.082	0.719	0.783	0.240	4	1	5
	SATIS 3		3.493	0.787	0.022	-0.066	4	1	5
	SATIS 4		3.398	1.255	-0.966	-0.272	4	1	5
SATISFACTION	SATIS 5		3.373	0.751	0.256	0.118	4	1	5
ITEMS	SATIS 6		2.659	0.926	-0.678	-0.385	3	1	4
1 TO 22	SATIS 7		2.167	0.871	-0.001	0.720	3	1	4
	SATIS 8		2.914	0.823	0.179	-0.485	3	1	4
	SATIS 9		3.229	0.860	-0.314	-0.805	3	1	4
	SATIS 10		2.662	0.923	-0.987	0.069	3	1	4
	SATIS 11		2.726	0.771	-0.407	-0.123	3	1	4
	SATIS 12		1.662	0.808	1.396	1.295	3	1	4

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
	SATIS 13		2.011	0.755	0.768	0.760	3	1	4
	SATIS 14		2.422	0.712	0.186	1.055	3	1	4
	SATIS 15		2.354	0.657	0.690	1.061	3	1	4
	SATIS 16		2.237	0.550	2.287	1.421	3	1	4
	SATIS 17		3.252	0.588	0.624	-0.339	3	1	4
	SATIS 18		3.190	0.653	0.947	-0.609	3	1	4
	SATIS 19		2.880	0.655	0.936	-0.577	3	1	4
	SATIS 20		2.216	0.993	-0.835	0.437	3	1	4
	SATIS 21		2.824	0.716	0.380	-0.509	3	1	4
	SATIS 22		2.354	0.849	-0.388	0.443	3	1	3
AGE		Year of Birth	7.285	1.679	8.000	-1.660	8	1	9
TEACHING EXPERIENCE	None	Years of Teaching	4.737	1.271	0.761	-1.073	5	1	
	1	Years of Teaching							
	1	Years Employed	3.000	1.480	-1.239	0.150	5	1	6

APPENDIX B (continued)

Category	Mnemonic	Variable Description	$\bar{X}$	S.D.	Kurtosis	Skewness	Range	Minimum	Maximum
RESIDENCY	1	Residency	4.018	2.184	-1.128	0.361	7	1	8
	2- 3	Residency							
	4- 6	Residency							
	7- 9	Residency							
	10-14	Residency							
	15-19	Residency							
	20-29	Residency							
	30-	Residency							
GRADE		Grade Now	5.438	1.029	0.080	-0.442	5	2	7
		Grade Expected	6.335	0.812	3.024	-1.391	5	2	7

APPENDIX C

DEGREE OF CONSENSUS IN FPR'S FOR NINETEEN DECISION-MAKING ITEMS

APPENDIX C

DEGREE OF CONSENSUS IN FPR'S FOR NINETEEN DECISION-MAKING ITEMS

Decision Item	Factor Construct Labels	Friction Point Ratings (FPR)						$\bar{X}$	S.D.	Summary Comment
		Low FPR		Medium FPR		High FPR				
		%	N	%	N	%	N			
DI 1	Curriculum Planning	59.3	166	11.8	33	28.9	81	1.69	.89	Dissent
DI 2		70.7	198	10.0	28	19.3	54	1.48	.79	Dissent
DI 3		57.5	161	12.1	34	30.4	85	1.72	.89	Dissent
DI 4	Classroom Management	89.3	250	4.3	12	6.4	18	1.17	.52	Consensus
DI 5		86.4	242	4.3	12	9.3	26	1.22	.60	Consensus
DI 6		81.8	229	4.6	13	13.6	38	1.31	.70	Consensus
DI 7	Instructional Program	73.6	206	12.9	36	13.6	38	1.40	.71	Consensus
DI 8		80.7	226	6.1	17	13.2	37	1.32	.69	Consensus
DI 9		50.7	142	20.4	57	28.9	81	1.78	.86	Dissent
DI 10	Evaluation	66.4	186	10.7	30	22.9	64	1.56	.84	Dissent
DI 11		64.6	181	17.9	50	17.5	49	1.52	.77	Consensus
DI 12		48.6	136	23.9	67	27.5	77	1.78	.84	Dissent
DI 13		44.6	125	28.9	81	26.4	74	1.81	.82	Dissent

APPENDIX C (CONTINUED)

Decision Item	Factor Construct Labels	Friction Point Ratings (FPR)						$\bar{X}$	S.D.	Summary Comment
		Low FPR		Medium FPR		High FPR				
		%	N	%	N	%	N			
DI 14	School Organization	49.3	138	19.6	55	31.1	87	1.81	.87	Dissent
DI 15		80.7	226	8.2	23	11.1	31	1.30	.65	Consensus
DI 16		72.5	203	11.1	31	16.4	46	1.43	.76	Consensus
DI 17	Staffing	61.8	173	20.7	58	17.5	49	1.55	.77	Consensus
DI 18		52.1	146	24.3	68	23.6	66	1.71	.82	Dissent
DI 19		56.1	157	22.9	64	21.1	59	1.65	.80	Dissent