

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The review of literature in the previous chapter has looked at the leadership focusing on leadership behavior and school effectiveness. This chapter will look at the physical dimension of the research, determining the samples, selecting the samples, developing the test instruments, establishing the process variables to be measured, administering the questionnaires and the methods to analyze the collected data.

Given the significance of leadership theories (in the previous chapter), the findings, as well as the recommendation leadership, this study will attempt to ascertain the relationship between leadership behavior on one hand and school effectiveness, especially the academic achievement, on the other. For these purposes, the null hypothesis in page 5 will be examined:

3.2 Design of Study

For the purpose of this study, a cross-sectional survey has been chosen. This type of survey collects information from a sample, which has been drawn from a

predetermined population. Furthermore, the information is collected at just one point in time, although the time it takes to collect all of data ranges from a day to a week.

The objective of the sampling methods is to select two comparison groups from two secondary schools; one group to be designated as more effective urban school in terms of raising student's academic achievement and a second group to be designated as less effective rural settlement secondary school.

3.3 Population and Sampling Procedures

A major problem selecting the two schools is the necessity to control in some way for the variations in student input or the effect of home influence. This is important because a finding from other researchers has suggested that differences in student achievement may be largely explained by differences in student background. Since the purpose of this study is to identify leadership behavior attributes that facilitate academic achievement, it is necessary to distinguish as far as possible school effects from student background effects. A rigorous statistical treatment would require longitudinal studies in which repeated measurements are made on the same group of pupils at several different points during their school career. This is outside the scope of the researchers their study.

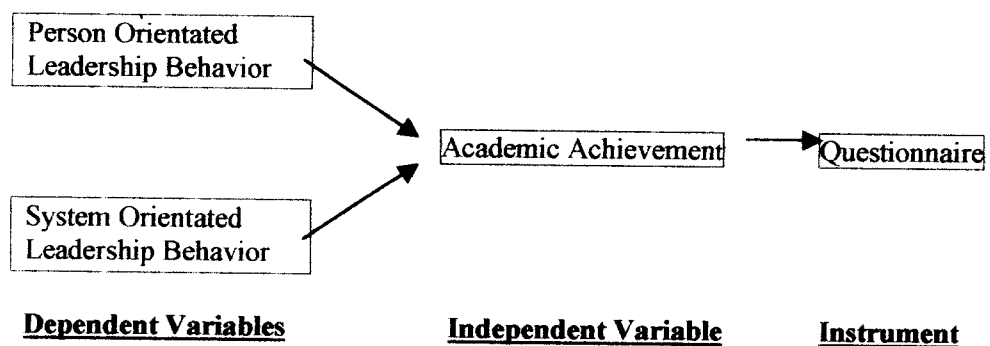
Therefore, in this research the two schools chosen has been based on purely academic results (which are the PMR and the SPM National Examination), and their distinguish geographical locations. Another factor that had to be considered is that,

no change of principal in the school for at least four years in the period preceding 31 Dec 2003. This criterion was added to ensure that the incumbent principal at the time of the study has been in schools long enough to make an impact.

The target population would be teachers from an effective secondary school (SMK Clifford), and a less effective secondary school (SMK Benta) in Pahang. SMK Clifford was characterized as high academic achieving urban secondary school, and the other, SMK Benta as low academic performance rural secondary school with its academic achievement did not exceed 50 % passes in the National Examinations. However the accessible population are the teachers who have at least two years experience of teaching in these two secondary schools in Pahang. This is to ensure that the teachers know their principal well enough after two years to make a more accurate judgement.

3.4 The Research Variables and Conceptual Framework

Figure 2 : Conceptual Framework of Study



This present study is an exploratory one to ascertain the relationship between the principals leadership behavior on the one hand and the pupils' academic achievement on the other. Figure 2, which is a schema of variables to be studied, shows that the types of leadership behavior can influence the school academic achievement. Of course, other situational factors, such as teacher, pupil's characteristics, and environmental pressure and demand, have some impact in influencing the leadership behavior of principals (Lim, 1984).

Theoretically, a good school would have an effective principal, and highly motivated teachers. So, there should be a significant correlation between effective principal and highly motivated teachers. Extensive correlational research indicates that school with certain characteristics as identified in "creating Effecting schools" (Brookover, 1982) have higher levels of student achievement than schools without those characteristics. The characteristics which describe a profile of an effective school have been placed by Brookover into three clusters : the ideology, the organizational structure, and the instructional practices of the schools.

Though Brookover and his colleagues in their research on effective schools admitted that the kind of learning climate as outlined in their book on effective schools does not categorically cause high achievement, school are measured, at least in part, by achievement scores.

Bunting (1982) has found that a major correlate of principals' instructional role is the principals' leadership behavior. Bunting carried out a correlation analysis

on ratings provided for principals on the leadership behavior Description Questionnaire (LBDQ) and scores earned by teachers. The presence of statistically significant correlation between the instruments suggests a relationship between the styles of leadership exhibited by principals and the educational achievement of the pupils.

3.5 Instrumentation

The researcher's instrument administration (questionnaire) contain of two sections A and B.

Section A:

The teachers were merely requested to answer the questionnaire LBDQ Form XII as part of survey on leader behavior or management style of their principals. Where Leadership behavior of principal are based on 2 dimensions (36 items):

- **Initiating Structure / System Orientation (18 items) that is item number 2, 4, 6, 8, 9, 12, 13, 15, 18, 20, 22, 24, 26, 28, 30, 32, 34 & 36.**
- **Person Orientation / Consideration (18 items) that is item number 1, 3, 5, 7, 10, 11, 14, 16, 17, 19, 21, 23, 25, 27, 29, 31, 33 & 35.**

Section B:

Respondents were requested to complete the Personal Particulars of Respondents (11 items). Neither of the teachers who participated in the survey was informed beforehand of the selection status of the school, nor were they told of the way the schools would be classified on the effectiveness measure. The teachers were not required to write their names on the test booklet and they were assured that their scoring would remain confidential to the researcher.

It was decided that, in order to reduce the time and effort necessary to produce valid, reliable measuring instruments, the purpose of the research could be accomplished using instruments already designed and tested.

The questionnaire used is a part of the Leadership Behavior Description Questionnaire (LBDQ) Form XII, made up of 36 items (shortened version, see Appendix M) was used to obtain description of the behavior of the two principals as perceived by their teachers in the school.

This L.B.D.Q Form XII was selected because the two dimensional theory of leadership behavior that evolved from the Ohio State Leadership studies represent a widely accepted research based approach to the study and practice of Behavioral Leadership. The major value of this approach is the clear demonstration that these **two dimensions** of leadership behavior are real and observable which would account for a great proportion of actual leadership

behavior. The implication of the finding from his approach provides a framework for solving problems in schools organization.

The reliability of the sub-scales had been determined by Stogdill, using a modified Kuder-Richardson Formula. The modification consists in the fact that each item was correlated with the remainder of the items in its sub-scale rather than with two sub-scale score including for item.

This instrument measures consists of twelve dimensions of leader behavior are developed by Halpin (1959). The twelve sub-scales as described by the L.B.D.Q-XII are:

- **Demand Reconciliation:** The leader reconciles conflicting Organizational demands and reduces disorders to system.
- **Representation:** the leader speaks and acts as the representative in the group.
- **Tolerance of Uncertainty:** He or she is able to tolerate uncertainty and postponement without anxiety or upset.
- **Initiation of structure:** Clearly define his own role and let followers know what is expected from him.
- **Persuasiveness:** Uses persuasion and argument effectively, exhibits strong conviction.

- **Influence with superiors:** maintain cordial relation with superiors; has influence with them; is striving for higher status.
- **Role assumption:** actively exercises the leadership role rather than surrender it.
- **Consideration:** regards the comfort, well being, status and contributions of followers as important.
- **Tolerance of freedom:** allows staff members scope for initiative decision and action.
- **Production:** Emphasis applies pressure for productive output.
- **Predictive Accuracy:** exhibits foresight and stability to foresee and outcome accurately.
- **Integration:** maintains a closet knit organization; resolves inter-member conflicts.

3.5.1 System Orientation/Initiating Structure Leadership

Initiating Structural leadership refers to a leader who responds to the needs of the school.

1. Assumption
2. Production Emphasis
3. Initiating Structure
4. Role Persuasiveness
5. Representation
6. Superior Orientation

3..5.2 Person Orientation Or Consideration Leadership

Person Orientated Leadership refers to leaders who responds to the need of personal such as subordinates or staffs.

1. Integration
2. Tolerance of uncertainty
3. Tolerance of freedom
4. Predictive Accuracy
5. Consideration
6. Demand Reconciliation

The scoring sheet or the record sheet (See Appendix D) assigns items to the sub-scales. For examples, the “Representation” sub-scale consists of item 1, 12 and 22. The sums of scores of these three items constitute the score for sub-scale “Representation”. Similarly, the scores for the “tolerance of uncertainty” consist of the sum of the scores of item 2, 13 and 23. By transferring the item scores from the test booklet on the scoring sheets, the sum of the score gives an accurate score or each sub-scale. The maximum score for each score for a sub-scale of three items is 15. As the items measure the frequency with the principal exhibits each of the twelve behaviors and characteristics high scores indicate positive behavior and low indicate negative behavior.

3.6 Procedure / Administration of the Questionnaire

Upon the approval of thesis title from University of Malaya, permission was granted by Education of Planning and Research Department (EPRD) in the Ministry of Education Malaysia and State Education Department (JPN). Secondary data was obtained from the Education Officers in this district. The questionnaires were administrated personally by the researcher together with explanation on the purpose of the question are computed. A number of 84 teacher respondents were randomly selected from each of the two schools, which comprises of 94.2 % and 87.4 % of the overall sample population respectively.

The only criteria being that the teacher should have been in the schools for at least two years. Teachers were given questionnaires that were in Malay Language version and English version where they were given a choice of answering in either one language. The completed questionnaires would be collected within a week of administration.

Neither of the teachers who participated in the survey was informed beforehand of the selection status of the school, nor were they told of the way the schools would be classified on the effectiveness measure. The teachers were merely requested to answer the LBDQ Form XII as part of survey on leader behavior or management style of their principals. The teachers were not required to write their

names on the test booklet and they were assured that their scoring would remain confidential to the researcher.

Halphin suggests that “a minimum of four respondents per leader is desirable to get satisfactory index score of the leader’s behavior”. The figure of 32 teachers and 53 teachers (as respondents) per school used in this research satisfied the Halphin’s criterion.

3.7 Data Analysis Techniques

All data derived from the questionnaires is analyzed by using the Statistical Packages for the Social Science (SPSS). The measure was completed by teachers using a five-point scale with 1 for ‘never’ to 5 for ‘always’. The reliability and validity of these measures has been documented in Meor Sharuddin (1997). The estimated coefficient of internal consistency alpha ranged from 0.76 to 0.86 in this research. Therefore, no pilot test is needed. Descriptive analysis was used to make inference-using averages, percentage and mean scores.

All the twelve sub-scales of Leadership Behavior were taken into consideration, whereby they are actually describing two main different Leaderships, that is, the Task Orientated Leadership and the Person Orientated Leadership.

3.8 Summary

This chapter dealt with the conceptual framework of the study, which is exploratory one to ascertain the relationship between principal effectiveness and school effectiveness.

The procedure for selecting in the sample was explained, and the variables and instruments used were discussed. The validity and reliability of the L.B.D.Q.-Form XII was based on a number of leadership research questionnaire and was discussed

The researcher observed the climate of the schools by walking around area while doing the survey. The researcher has a chance to talk informally with a few the teachers asking their opinion about the school and principals.

The features of leadership behavior are obtained from perceptions of teachers. Besides the basic presentation of data and description of statistical treatment involved, discussion will also emphasize the significant features identified as a result of comparisons made.