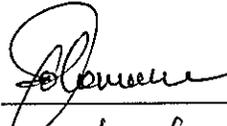**THE UNIVERSITY OF THE SOUTH PACIFIC**
LIBRARY
Author Statement of Accessibility

Name of Candidate : APAO HANFAKAGA SOLOMONE

Degree : MASTER OF ARTS (MA)

Department/School : SCHOOL OF EDUCATION

Institution/University : FACULTY OF ARTS AND LAW

Thesis Title : CLUSTER SCHOOLS

Date of completion of
requirements for award : APRIL, 2010

1. This thesis may be consulted in the Library without the author's permission. **Yes**/No

2. This thesis may be cited without the author's permission providing it is suitably acknowledged. **Yes**/No

3. This thesis may be photocopied in whole without the author's written permission. **Yes**/No

4. This thesis may be photocopied in proportion without the author's written permission.
   Part that may be copied:

   Under 10% _____ 40-60% _____

   10-20% _____ 60-80% _____

   20-40% _____ Over 80% ✔_____

5. I authorise the University to produce a microfilm or microfiche copy for retention and use in the Library according to rules 1-4 above (for security and preservation purposes mainly). **Yes**/No

6. I authorise the Library to retain a copy of this thesis in e-format for archival and preservation purposes. **Yes**/No

7. After a period of 5 years from the date of publication, the USP Library may issue the thesis in whole or in part, in photostat or microfilm or e-format or other copying medium, without first seeking the author's written permission. **Yes**/No

8. I authorise the University to make this thesis available on the Internet for access by authorised users. **Yes**/No

Signed: _____

Date: 12/03/2010

Contact Address

EASTERN DIVISION

MINISTRY OF EDUCATION

Permanent Address

8 KABATIA PLACE

NAMADI HEIGHTS

Feb2005

THE UNIVERSITY OF THE SOUTH PACIFIC
LIBRARY
Author Statement of Accessibility- Part 2- Permission for Internet Access

Name of Candidate : APAO HANFAKAGA SOLOMONE

Degree : MASTER OF ARTS (MA)

Department/School : SCHOOL OF EDUCATION

Institution/University : FACULTY OF ARTS AND LAW

Thesis Title : SCHOOL CLUSTERS

Date of completion of
requirements for award : APRIL, 2010

1. I authorise the University to make this thesis available on the Internet for access by USP authorised users. [Yes]/No

2. I authorise the University to make this thesis available on the Internet under the International digital theses project [Yes]/No

Signed: _____

Date: 12/03/2010

Contact Address

EASTERN DIVISION

MINISTRY OF EDUCATION

SENIKAU HOUSE

SUVA.

Permanent Address

8 KABATIA PLACE

NAMADI HEIGHTS

SUVA.

CLUSTER SCHOOLS:
AN ALTERNATIVE SOLUTION TO
THE PROBLEMS OF SMALL RURAL SCHOOLS IN FIJI

by

Apao Hanfakaga Solomone

A thesis submitted in fulfillment of the
requirements for the degree of
Master of Arts

School of Education
Faculty of Arts and Law
The University of the South Pacific

April, 2010

DECLARATION

Statement by Author

I, Apao Hanfakaga Solomone, declare that this thesis is my own work and that, to the best of my knowledge, it contains no material previously published, or substantially overlapping with material submitted for the award of any other degree in any institution, except where due acknowledgement is made in the text.
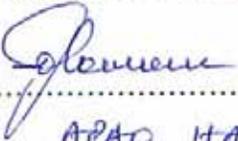
Signature .... Date 9/3/2010

Name ...... APAO HANFAKAGA SOLOMONE ......

Student ID No. ...... S80044120 ......

Statement by Supervisor

The research in this thesis was performed under my supervision and to my knowledge is the sole work of Mr. Apao Hanfakaga Solomone.
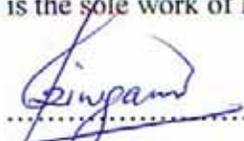
Signature .... Date 9/3/2010

Name ...... Dr GOVINDA ISHWAR LINGAM ......

Designation ...... SENIOR LECTURER EDUCATION ......

ACKNOWLEDGEMENTS

ABSTRACT

The objective of this study was to explore whether *school clusters* can offer an alternative solution to the management and economical problems faced by small rural schools. It explored the concept of *school clusters*, whereby schools in close proximity to each other are grouped together so that they can share resources. In this way, schools are able to complement each other in the range of career opportunities they offer their students as well as in the physical resources available for such services. The focus in this study was at the secondary level as it looked at the three schools in the sample and also at different models and practices of *school clusters* internationally.

A qualitative case study design was chosen and provided data needed for comparison with international literature. In-depth interviews of the principal participants were of an open-ended nature to enable further and deeper exploration of the practices carried out by the three schools. Documents drawn up to establish their cooperation were also examined, as well as informal discussions with teachers and parents.

The study found that the principals of the three schools selected as a sample for this study preferred a model similar to *The Education Centre* (TEC) arrangement that they practiced where all the schools play an equal role. It also found that models practiced in other countries such as Rural-Rural-Cluster (RRC) and Rural-Urban-Cluster (RUC) could also be adopted in developing countries such as Fiji.

In the absence of formal and catalogued *school clusters* practices in developing countries such as Fiji, a wider scope to such a study is needed to validate any claims made here with regards to the suitability or otherwise of *school clusters* locally. The limited sample to this case study calls into question the transferability of findings here to other parts of the country.

LIST OF ABBREVIATIONS AND LOCAL TERMS

AAP	Affirmative Action Programme
CAS	Curriculum Advisory Services
COE	Centre of Excellence
FEF	Fijian Education Fund
FIEC	Fiji Islands Education Commission
Form 4	Year 10 of education (about age 15)
Form 6	Year 12 of education (about age 17)
FSLC	Fiji School Leaving Certificate Examination
MOE	Ministry of Education
PEMAC	Physical Education Music Art & Craft
Primary	Year 1 to Year 8 encompassing about ages 6 to 13
RQ	Research Question
Secondary	Year 9 to Year 13 encompassing about ages 14 to 18
Soli vakamisinare	an annual financial levy by the Methodist church on its members
Tanoa	a wooden bowl used to mix yaqona
Talanoa	an informal discussion between a group of people
Taukei	the indigenous Fijian people
TEC	The Education Centre
USP	University of the South Pacific
Vanua	the collective indigenous community / the land
Vanua soli	village or community levies
Yaqona	a Fijian traditional drink

Table of Contents

CHAPTER 1

OVERVIEW OF THE STUDY

1.0   Introduction

This study explores *school clusters* as an alternative solution to the problems faced by rural schools in Fiji. It focuses on the practice of collaboration and cooperation between the three secondary schools chosen as a sample for this study. This chapter provides an overview of the study. It includes an outline of the remaining sections of the thesis such as the background, the rationale and the aim of this study. It will then be followed by a brief discussion of the research topic, the research question and the research design adopted for this study. It will finally provide a summary of the organization of the thesis and conclude with a summary of this chapter and preview of the next chapter.

1.1   Background to the Study

The tradition of *clustering*, where people come together to accomplish a specific task, is as ancient as early civilization and is also synonymous with the local Fijian culture of communalism. Whether it is in a village planning meeting which expedites the exchange of ideas to raise funds to build the new community hall where resources are pooled together or to construct the new school building where the physical and technical man power is more efficiently utilized, they all work together for their mutual benefit (Nachtigal, 1992). The late Prime Minister and President of Fiji, Ratu Sir Kamisese Mara (1972) coined the phrase "The Pacific Way" to describe the way Pacific people do things and which is intrinsic and endemic to all their cultures. It is a practice that has been the cornerstone of most internal achievements at the local village to national level and also regionally between countries in the South Pacific region.

The practice of *school clusters* involves a number of schools working together with the primary objective being to better fulfill the needs of the schools involved (Chapman, Froumin & Aspin, 1986). The schools are selected primarily on the basis of proximity for convenient management, and are usually within a distance of 5 to 10 kilometer radius. A host school and its head are mutually chosen by all to lead the cluster and help facilitate its administrative functions. In some cases, the most affluent or best performing school in the group assumes the leadership role by default. Policies and decisions are however made by a committee comprising representatives from all the schools involved and are focused on their development and improvement, both physically and academically. Funding for the administration of the cluster and the development of the individual schools is drawn from the individual school managements, government and other sources such as non-governmental organizations and agencies, community and private agencies or individuals.

In developing countries such as Ethiopia (Gidey, 2002), Cambodia (Dykstra & Kucita, 1998), and Thailand (Chapman et al., 1986), *school clusters* had enabled the governments, with the assistance of aid agencies, to focus resources on co-jointly developing a number of schools who have come together for the specific purposes of developing and improving the standard of education they provide for their students. With the limited resources they have, they were able to spread the benefits to more schools and students in this cooperative arrangement. Parents were happy with this innovation because of the accelerated and tangible developments and benefits that were being seen and experienced not only in the physical developments of the schools but in the academic performances and achievements of their children on a comparative level nationally. This then initiated a cyclical chain of events that led to further development as school populations increased, better qualified teachers willing to serve in these sometimes remote schools and more financial assistance being channeled to these schools.

1.2   Rationale for the Study

Traditionally, the term 'Fijian education' is synonymously used with unsatisfactory academic performance (Puamau, 1999) and lately in association with the term 'rural education' (Tavola, 2000), with negative connotations. That is to say that in talking about the problems of rural schools, one will invariably be focusing also on the problems of Fijian schools, and in the scope and context of this study, the terms 'rural schools' and 'rural Fijian schools' are used interchangeably to refer to the same thing, and form the focus of this study.

After independence in 1970, a proliferation of schools began to sprout all around the country as communities took charge of their own destinies, believing that this new mandate of national self-governance extended to the daily affairs of life. Most of the Indo-Fijian schools were supported by their religious organizations and were thus well funded to provide the type of services demanded of an education institution. Most of the Fijian schools were however community based and supported and were thus in a poor financial status (Tavola, 2000). When the euphoria of owning a school subsided and the reality of running such an institution began to dawn on them, these local Fijian administrations realized too late that they just did not have the resources or the management skills to be engaged in such national activities. As a result, statistics from this period show an uneven distribution of schools and population around the country. The highest percentage of primary schools (16%) was found in the Eastern Division. This indicated a large number of very small schools whereas the small percentage in urban centres indicated a small number of large schools. Even though there is a smaller percentage (8%) of secondary schools in the Easter Division, their geographical location meant small populations also. (MOE, 1970 – 1999).

Figure 1.1: Map of Fiji showing the Divisions
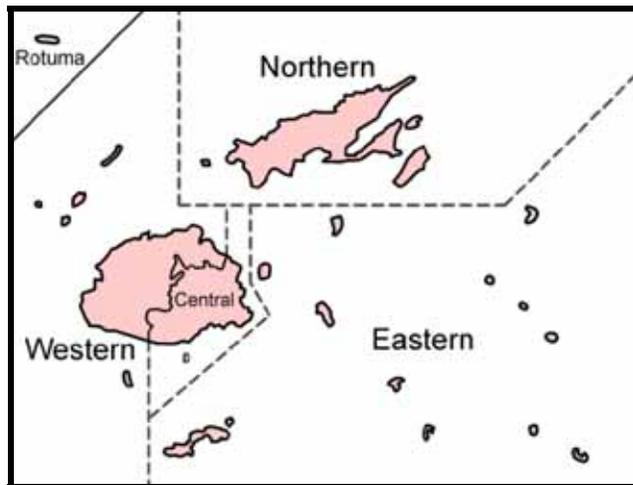
Source: http://commons.wikimedia.org/wiki/Image:Fiji_divisions_named.png

The 1969 Royal Commission Report on education in Fiji warned against the sudden growth of poor quality secondary schools but two policies that came about during this period, the junior secondary school and grant-in-aid policies, only served to accelerate the rapid expansion in this direction - there were 43 secondary schools in 1964, 73 in 1971 and 154 by 1999 (MOE, 1970 – 1999). Since that time, most schools have been upgraded with the help of government to secondary status offering education up to Form 6 or Form 7 but are still considered relatively poor in the type and range of services they are able to offer.

Like other small nation states, Fiji too faces the problems of providing quality social services and adequate employment prospects for all its citizens especially for those in the disadvantaged rural areas (Bacchus, 2000). Equity and access to adequate employment opportunities demand improved economic growth and a quality education system. However, with Fiji's economy heavily dependent on a narrow range of economic activities which are in turn quite vulnerable to fluctuating global market trends, its internal resources available to provide and improve social services and its education system are not going to improve dramatically overnight; internal and innovative measures are needed.

The basis for this study stemmed from many years of teaching service in the rural areas and the problems that teachers normally experienced in struggling to provide a decent education to the students within the resources available to the schools. Teachers and school leaders regularly experience these frustrations in their struggle to provide a 'good' standard of education to their students. In the absence or scarcity of necessary resources, student achievements are at best few, and at worst bloat the high attrition rate of Fijian students who drop out of the school system. In their efforts to provide an education that is relevant to the needs of the stake holding communities and that is up to date with national and global developments in the urban schools, was born this strategy of the schools working together by sharing resources to help each other out. This concept, formally and internationally known as *school clusters,* therefore forms the focus of this study.

Assistance from the Ministry of Education (MOE) is insufficient for major capital developments because this assistance is in proportion to the school roll, and in most of these rural schools, the numbers are quite small in relation to urban schools. The economic livelihood of these school communities is mostly of a subsistence nature (Tavola, 2000) and there is not much left for the purpose of school development. Community fundraisings have most often been the real funding agencies for these schools, and in communities where there can be as many as three to five schools in close proximity to each other, regular fundraisings can become less profitable as these schools compete for the same resources and continue to proverbially milk the same cows.

The concept of *school clusters* (Webb, 1994; Nachtigal, 1992; Chapman et al., 1986; Kaewadaeng, 1985), where schools in close proximity to each other come together to share resources, may best suit the Fijian communal way of life and cooperative method of doing things. It may offer the best possible alternative to addressing the plight of these small rural schools here in Fiji.

The plight of the rural schools is an area that has been widely researched and various suggestions on addressing these were put forward (Williams, 2000; Dakuidreketi, 1995;

Whitehead, 1986; Baba, 1979). Teachers in these rural schools have had to work harder to try and achieve comparable results to their colleagues in the urban and better resourced schools. *School clusters* could help improve the lot of these schools by allowing them to pool their resources and work together to provide education of a better quality to their children. Whilst the concept is new to Fiji in its formal sense and application, the practice of sharing is indigenous to our way of life and loosely practiced amongst some schools. The case of the three secondary schools in this study is a case in point that the concept could be formally adopted and adapted to suit the local context and offer an alternative solution to help the struggling small rural schools. The parents of the three secondary schools have traditional ties that bind them to the *vanua* through their ancestors and in a lot of cases, through blood relations. These obligate them to respond to the call of the *vanua* for community development or functions of a religious nature also (Ravuvu, 1983). Through this, the parents of the three secondary schools are able to work together for the common purpose of school development to improve the education of their children.

1.3   Aim of the Study

Maintaining small schools is becoming very uneconomical especially in these days of modern technological developments. The costs of equipment such as computers and photocopiers that are essential aids to education have become out of reach of the budgets of these small schools. The range and scope of subjects offered are limited to the availability of finances to purchase the necessary resources. As a result, school performances are academically of a very low standard and become a deterrent to well qualified and experienced teachers to serve in these schools. Unless this vicious and unending cycle is broken, these schools will continue to struggle and their innocent students will be the victims.

School clusters may enable these schools to share their resources and have them accessible to their teachers and students. For instance, a computer laboratory jointly funded and located in one school can be made accessible to all the other schools. In this way, there will be no duplication of the same resources and therefore free up these

already limited funds for other projects. In similar manner, these schools could acquire for themselves the necessary resources to be able to lift their performances and therefore attract well qualified and senior teachers and school leaders. Their students will therefore not only have access to modern technological equipment but also to a wider range of educational opportunities with better and senior qualified teachers available.

The aim of this study was to explore whether *school clusters* can be applied to the local context to help the small rural schools improve their standards of education. It had reviewed international literature on the concept and practice in countries that are of a similar status to Fiji and identified some of these models that could possibly work in the Fiji context. The main focus was on the practice of the three secondary schools in the sample and how they relate to international literature on *school clusters*. However, the arrangement by these three secondary schools then had not been formally established or recognized by the MOE because the concept was new to Fiji and there was no local literature or acknowledged formal practices of *school clusters*.

1.4   Statement of the Research Topic

The focus of this study was to explore the concept of *school clusters* and its suitability in the Fiji context. The central question to this study in the Fiji context is whether the concept of *school clusters* (Nachtigal, 1992; Chapman et al., 1986; Kaewadaeng, 1985) could offer an alternative solution to the problems faced by rural schools. As these small rural schools struggle to cope with the ever-increasing demands of modern technology, they deprive their children of one of their fundamental rights – that is to a fair and equitable education. As the government struggles to cope with this pressing need by implementing special measures, the limited resources it has, meant that development was going to be very slow and uneven. However, since a lot of these schools share a common heritage in the sense that they are from the same province or community per se, they would be able to find enough common ground to unite in the development of the education of their children.

Studies in Ethiopia (Gidey, 2002) found that *school clusters* helped facilitate the dissemination of information more effectively through these small groups. They were more interactive and because the participants know each other better, they were able to share more openly and help each other to understand. Yates (2001) found that in New Zealand parents and students confidences improved in the comfort of greater numbers and thus performances improved. Economically, the schools became more manageable as they share resources. In England, Hargreaves, Galton and Comber (1995) found that the *school clusters* helped in curriculum implementation as the schools were able to work together more effectively in small groups.

Here in Fiji, the need for *school clusters* is all the more imperative because of the limited resources and the proliferation of small schools. A communal coexistence is very much the basis of the social and cultural lifestyles. A lot of the rural schools have been formed through the cooperation of several villages that have traditional affiliations to each other and this should make it easier for these small schools to be able to come together in a bigger community to help each other out as they have been doing through their daily communal activities.

The three secondary schools in the study recognized the need for a collaborative and cooperative effort if they were to better serve their students. The limited resources they had individually and the limited number of students available meant they were competing to the detriment of their students and themselves as educational institutions. The initiative taken by the three schools enabled them to pool together all their resources to provide a wider range of educational opportunities as well as those of a higher quality for their students. This study attempts to determine the effectiveness of their arrangement.

1.5   Research Question (RQ)

The main question that is addressed in this study is "Can *school clusters* offer an alternative solution to the problems faced by small rural schools in Fiji?" The subsidiary questions that guided the data-gathering process were intended to first find out the

problems faced by these schools and the programmes that they have in place to address these, either of their own initiative or from the government through the MOE. The questions then focused on the need for alternative measures to address these problems, which also included discussions on the concept of *school clusters* and conceptual models that can best suit the Fiji situation. These subsidiary questions address the three research questions posed for this study:

RQ 1 – What are the challenges faced by the schools in the provision of education?

RQ 2 – What are the measures taken by the schools to address these challenges?

RQ 3 – What is the most suitable *school cluster* model for the Fiji context?

1.6   Research Design

To examine the issue of *school clusters*, a qualitative case study design was used (Merriam, 1998). In this qualitative approach, in-depth interviews were used as the basis for data gathering. A qualitative case study of the three schools involved in a cooperative effort that best resembles this concept of *school clusters* provided an operational understanding that was related to the literature and vice-versa. This approach provided further insights into contentious issues that surfaced especially when long established institutions adopt such innovations and had to go through a readjustment phase in this change process (Fullan & Hargreaves, 1992).

The participants interviewed were an official from the MOE, the principals of the secondary schools, the three presidents of the Parents and Teachers Associations of the three schools and three Heads of Departments representing each of the three schools. Informal discussions were also held with other teachers and parents as well as other stakeholders from the community. There were two rounds of interviews involving formal and in depth sessions with selected participants as well as informal 'talanoa' sessions that were suggested by Sharma (1999) as being highly respectful and conforming to our cultural context and apart from providing the researcher with a larger qualitative sample size, the participants were able to reflect openly in an atmosphere that

they would not individually have done. More details on the research methodology are provided in Chapter 4.

1.7 Organization of the Thesis

This chapter provided a brief overview of the study. It discussed the background, rationale and aim of the study. It also considered briefly the statement of the research topic, the research questions that guided the data gathering process as well as the research design adopted for this study. It finally provided an overview of the organization of the thesis.

The next chapter, Chapter 2 will discuss the study context and in particular, it will consider contemporary issues in rural education and of special significance, those particular to Fijian education. These issues have been covered extensively by the Fiji Islands Education Commission (FIEC, 2000) Report and will be briefly reviewed here.

Chapter 3 will review the related literature on *school clusters*. It will begin by considering the concept and the theoretical framework surrounding it and its practices in developed countries such as the United States of America (USA), New Zealand (NZ) and United Kingdom (UK) as well as those in developing countries such as Ethiopia, Cambodia and Thailand. It will then conclude by focusing on this present study involving the development of a conceptual model for *school clusters* in the Fiji context.

The research design and methodology used to guide this study will be considered in depth in Chapter 4 and it will also briefly review the background of the three secondary schools that form the sample for this study. It will consider in greater detail the preliminary findings from their arrangement known as *The Education Centre (TEC)*. The cluster formed by these three schools was the initial catalyst for this study.

This will be followed by the analysis and discussion of the research findings in Chapter 5. The data collected from the three schools are presented and discussed together to ensure a better grasp and understanding in the context in which they were made. The

chapter concludes with a summary discussion of the study findings in relation to the issues relevant to the aim of the study.

The final chapter, Chapter 6 will conclude with a final discussion of the significance of the study and make suggestions for further research to the practice of *school clusters*, and on the basis of the findings its applicability in the Fiji context.

1.8 Summary

This chapter has presented an overview of the study such as the background, rationale, aim, statement of the research topic and research questions that guided the study. It had also briefly considered the research design for the study and finally an overview of the remaining sections of the thesis

The next chapter, Chapter 2, focuses on the context of the study and will briefly look at the challenges that rural schools face daily and in particular, Fijian schools. The daily struggles of the parents of these schools and the type of assistance provided by government continue to shape and determine the type of education available to the children of these schools.

CHAPTER 2

THE STUDY CONTEXT

2.0   Introduction

This chapter looks at challenges facing Fijian education and some measures put in place by the government to address these. Issues already highlighted by educators are addressed with recommendations of how they can be dealt with to improve the plight of these disadvantaged schools and their stake holding communities. One of the three schools in the sample had been selected as a *Centre of Excellence* (COE) in line with the government's *Affirmative Action Programme (AAP)* and an analysis of what had been and was being done in the school would give an idea of its success or otherwise in alleviating the plight of these so called disadvantaged rural schools.

2.1   Historical Perspectives

Fijian education has been a topical issue over the years and has been widely researched and discussed by various researchers and academics. In defining Fijian education, Williams (2000:184) wrote:

> Generally, when people talk about Fijian education, the first thing that comes to mind is inferior education…inadequate facilities and resources, unsatisfactory examination results, inadequate supply of teachers, under-qualified teachers with insufficient experience in rural schools, low commitment of parents to education, uninspiring leadership, inadequate support for the school by the community and poor time management.

The depressing state of affairs found in most rural Fijian schools is aptly summed up above. Statistics from the MOE show the pass rate for Fijians in the Fiji School Leaving Certificate (FSLC) Examination averaged 39.3% from 1989 to 1997 whilst it was 58.9% for non-Fijians for the same period (Williams, 2000). This disparity in examination

passes, one of the end products of schooling, is just the proverbial tip of the iceberg of problems weighing Fijian education down. There is a cumulative factor of problems that educators have over the years been able to identify.

Having said the above, it must be noted that there are successful Fijian schools and that there has been a significant number of Fijians who have succeeded in education and other spheres of life and work. Some have gone abroad for further education and are now occupying responsible positions in the private and public sectors. The number of Fijians who hold degrees is quite significant and there are quite a lot with postgraduate qualifications, not to mention those who have been in government leadership over the years.

Teachers who have served in rural areas for long periods have seen and experienced for themselves the problems that do exist in rural Fijian schools. It is very easy to identify Fijian schools from non-Fijian schools simply by looking at the infrastructure. Fijian schools are generally characterized by the few cramped and dilapidated wooden structures, the mildewed and peeling paint of the concrete buildings, the over-grown grass around the school premises and the crowding village or bush suffocating and choking it. In most cases there are no demarcations between the school and the village and the school is used by the community as an extension of itself. It is a common sight to see the school grounds being used by the community for sports everyday and classrooms for meetings or even church services. Whilst such activities can help build stronger affinities between the school and its people, in most cases the people see these as their right to property they themselves helped build. One gets the impression that there is lacking a feeling of genuine affection and care for the school, due to its neglected state.

Indo-Fijian schools are the exact opposite in that from the overall compound to the sizeable and large number of buildings, all are well kept, clean and painted. The schools are always well fenced and maintained and access is purposeful. The people view and treat the institution with respect akin to the reciprocal gestures of mutual benefit one

would extend to another. The immediate impression of a community that loves and tends to the school is confirmed with the sense of pride the people have of their school when they talk about it. Is it any wonder then that there is a significant difference in the achievements of the students from two such disparate educational institutions?

2.2   The Challenges

The issue of Fijian education is as complex as the culture and traditions of the indigenous *taukei*. The concept of Fijian, according to Ravuvu (1983), extends from the self to the immediate family encompassing the extended family, the *vanua* which includes the land, its communities with all its values and traditions and the recent addition of the church to this extension of self. This expansion of the self is in essence an attempt to accommodate and make sense of the ever increasing boundaries the Fijian now continually finds himself or herself in. Roles that were once well defined are being redefined according to the demands and dictates of this extended self.

The formal and regimented structure of the school is a new addition to the self and is quite often viewed as separate from the inclusive circle of the self, the *vanua* and the church. The non-inclusiveness of culture in modern education (Thaman, 2001) has also contributed to the Fijians' perceptions of it being a foreign intrusion. This perception has over the past relegated education to a third life priority after the *vanua* and the church. Parents would more readily attend to commitments of the *vanua* and the church than they would to the school. It is not rare to find situations of children being sent home for non-payment of school fees while contributions to the "*vanua soli*" (village levy) and "*soli vakamisinare*" (church levy) are fully met (Williams, 2000). The success of Fijian education lies in the heart of understanding the "Fijianess" of the people by educators. Education reforms therefore must include the values and traditions of the people and they must be made to feel a sense of belonging and ownership in any educational venture (Thaman, 2002; Ravuvu, 1983). A gradual shift over the years towards this strategy has seen inroads being made in a change of attitude and priority by Fijian parents towards education.

The factors that affect Fijian education have been extensively researched by educators such as Williams (2000), Puamau (1999), Dakuidreketi (1995) and Baba (1979) and can be classified into the following:

- socio-economic, political and cultural factors such as -
    - equal access to education opportunities,
    - cultural conflicts and attitudes in education, and
    - the role of the church and the *vanua* in education.

- institutional factors such as –
    - quality of Fijian schools,
    - quality of school resources, and
    - affirmative action programmes.

- structural factors such as –
    - curriculum,
    - pedagogy and assessment, and
    - language and culture

- psychological factors such as –
    - education orientation, and
    - barriers to learning

These factors have been comprehensively summarized by Williams (2000) in the Fiji Islands Education Commission (FIEC) Report and are discussed briefly below.

2.2.1 Socio-economic, political and cultural factors

Statistics show that in 2000, over 115,000 Fijian children will be attending school from primary to secondary (Williams, 2000). Further projections show that about 62% of children in secondary schools from 2005 will be Fijian and predominantly in Fijian rural schools. The poor state of these schools means that the attrition rate will be higher than

the statistics for 1998 which showed that 11,576 Fijian students left school and 1999, where 12,691 Fijian students left school.

Government initiatives to keep children in school with its compulsory education policy, first implemented in 1997 and progressively up to Form 6 level (14 to 18 year olds), will help in ensuring that they do not leave school at too early an age and in getting the necessary basic education that will enable them to make the right choices and decisions. The big issue in question here however remains the 'relativeness' of this basic education; in a rural school it would almost certainly be of a standard much inferior to that of a student of the same level in an urban or non-Fijian school. Williams (2000) highlights the lamentable state of these rural Fijian schools and the immediate and urgent need of upgrading so as to be able to provide the necessary basic education for these children. Alternatively, she asserts that students must be provided equal access to education opportunities of a higher standard elsewhere and further government assistance is needed due to the low income status of the rural parents.

The low priority attached to Fijian education by many Fijian families means that the *vanua* and the church come first (Ravuvu, 1983). Consider this fact in the context of the financial well-being of the parents, which is very low, then one will realize just how little parents allocate to their children's education. Parents will go to great lengths to fulfill the demands of the *vanua* and the church financially and on their time, such as giving up their homes for meetings at the expense of their children's study times. When it comes to education, they are very flippant about their commitments. School principals have had to remind parents over and over again about the needs of their children, including school fees. Attendance in school by students and attendance by Fijian parents on days set aside for consultation with teachers and to discuss the performances of their children are generally poor. When there is attendance, there invariably will be mostly mothers on issues relating to academic performance, disciplinary matters and parents meetings.

The assistance parents are able to render their children is not only limited by their financial status and lack of commitment, but also by their lack of education. Not only are they unable to help them out in basic studies such as English and Mathematics but also in counseling for a proper career path. Their preference for the perceived superior academic education leading to white collar jobs over the lowly rated vocational and technical education has contributed significantly to the failure rates in Fijian students. In a lot of cases students choose subjects to please their parents even though they may not be able to cope with the academic demands. As a result they end up failing and dropping out of school.

The church and the *vanua* continue to play a significant role in education. According to Ravuvu (1983), for Fijians, the land, sea and forests are an extension of the self and are a part of one large community. The church in being embraced and accepted by their chiefs has also been added to this extension of the self. Schools however, are outside this circle of the self and are viewed as foreign. When children go to school, a process of separation takes place and is one of the reasons why children show a lack of interest in school work and why parents would more readily commit to church and *vanua* levies than to school financial obligations. Apart from owning numerous schools they are powerful agents of change within the Fijian community, as testified to by the commitment the people have for the two institutions – the church and the *vanua*. However, like a lot of school managements, they do have financial problems in maintaining their schools to the standard that can make them competitive with other schools. Williams (2000) found that government assistance could be significantly broadened and increased to ensure that these schools can deliver the quality education that national policy dictates and also help shape and mould people's attitudes to education.

2.2.2 Institutional factors

In the absence of a minimum standard for schools, examination results are the main criteria currently used to rate schools. On this basis, Fijian schools have ranked very poorly. MOE statistics show that the difference in the average percentage pass rates of

Fijians and non-Fijians for FSLC is 19.6% from 1989 to 1997 (Williams, 2000). Other factors such as geographical location, school type and size, the number of teachers, available resources, and the economic livelihood of the parents should be taken into consideration in rating schools to stop these schools from being disadvantaged. Their low ratings limit the types of assistance available to them and therefore continue to compound the problems facing these schools. Williams (2000) also found that a complete overhaul of Fijian schools must be the first priority of any reform measures such as quality leadership and teachers to provide professional teaching, improved understanding and relationships between teachers, students and parents of their roles in education and the necessary infrastructure and support services. Experienced and well qualified teachers are reluctant to go to rural Fijian schools because of the lack of proper teachers' facilities and amenities (Burnett & Lingam, 2007). It is difficult to entice such teachers to rural schools because of the poor state of existing quarters and the lack of proper quarters. In some cases married teachers have had to share accommodation. The selection criteria of teachers to these poor rural schools has had to be dictated by the availability of quarters and on numerous occasions recruitment is restricted to single new graduate teachers so that they can be accommodated according to the number of rooms in a house - three teachers in a three bedroom house.

One important recommendation made by Williams (2000) is the revision of the Tuition Fee Assistance Grant implemented in 1994 as government's financial assistance to rural Fijian schools that are the most disadvantaged in the small shares they receive according to the government's funding policy. The new financial formula however favours schools with large student populations which incidentally happen to be mostly urban and in a lot of cases non-Fijian schools. This old policy last revised in 1993 needs to be revisited so as to consider the plight of rural Fijian schools which have very small student populations because of their geographical distributions due to difficulties in accessibility.

Williams (2000:206) had recommended affirmative action to be focused on areas such as

> …financial resources, upgrading of physical facilities, teacher training, government boarding schools, specialist skills centres, provincial education development and information centres, pre-school, special education, production of resource materials, distance education, teaching resources and supply of equipment.

Affirmative action policies implemented by various governments over the years covering the above areas have greatly assisted rural Fijian schools. Developments to schools under this have done wonders to change the attitude of students, teachers and parents towards education. The current developments being undertaken on existing infrastructure and a plan for further development, have elicited support from parents (Williams, 2000). They now realize that these improvements are meant to improve the education of their children. The emphasis on relevant and holistic education has given education a new and broader meaning to the students and their parents.

2.2.3 Structural factors

The relevance of education to the indigenous people of a country must be culturally inclusive of traditional pedagogy and epistemology (Thaman, 2002). All too often education reforms are undertaken by foreigners without the proper analysis and assessment of existing cultural sensitivities and needs of the people and as a result most of the curriculum bears little meaning to the rural population. The predominant use of English as the main medium of instruction has contributed a lot to the failures of local children in education. Williams (2000) recognized that instruction at the primary level is more effective if conducted in the mother tongue of the students.

The new curriculum for Fiji Junior Certificate (FJC) level introduced in 2003 (FJC Examination and Assessment Regulation, 2003) places more emphasis on relevant education and less emphasis on the formal and traditional mode of assessment through examination. This draft policy was formally adopted in 2006 (Policy on Examinations and Assessment, 2006). The number of options offered for technical and vocational subjects have provided students with more alternatives for career considerations;

technical subjects such as Wood and Metal Technologies, Home Economics with options in Cooking, Home Craft and Textiles, Technical Drawing and Graphics as well as Agriculture Science. Information Technology and studies related to tourism have now taken on a greater significance to the people with global developments in the job market and the growing importance of tourism in Fiji's economy. Children need to be exposed to these areas as early as possible as all these entrepreneurial skills are able to avail to students a wider range of opportunities out in the market. Students who will not make it beyond the FJC level would have acquired the necessary relevant basic education with a working knowledge to be useful in their communities. However, the poor state of most rural schools will continue to deprive their students of these opportunities. *School clusters* may be a way to enable those in proximity to each other to share resources so that their students can have access to those that their individual schools would not normally be able to provide.

The focus of assessment on a continuous basis enables students to be assessed on their practical talents and a chance for academically weaker students to pursue tasks over a period of time. Assistance is rendered all the way so as to enable the student to succeed as opposed to the old system of immediate assessment and classification as a success or a failure. The spreading of the FJC assessment period over two years (Forms 3 and 4) has meant that there is less pressure on students in not being examined over a two hour period for two years work. As a result, more students have succeeded in the examination than in previous years (Williams, 2000). There is a further and urgent need to extend this mode of assessment to the Fiji School Leaving Certificate level to once again limit the high attrition rate at this Form 6 level.

One of the most important innovations in this reform is the priority given not only to the Fijian language but to the languages of other races. Although the emphasis goes only as far as conversational cross-learning, it nevertheless is a healthy start. It is hoped that this will just be the beginning of 'enculturing' our education system with our local languages. This multicultural and multilingual emphasis on education will contribute to

nation building and reconciliation, especially during these difficult times (Subramani, 2000).

2.2.4 Psychological factors

One of the main problems facing rural students is not only the lack of support they receive from their parents but their inability to provide the necessary counseling as they progress to higher levels of learning (Williams, 2000). A lot of students do not have this professional information due to the poor or lack of education of their parents. These rural parents do not have the necessary education to be in a position to advise their children accordingly. As students graduate from primary to secondary level, they should be able to make career choices and select subject combinations accordingly with the help of their parents; this however is not really the case (Dakuidreketi, 1995; Tierney, 1970). Schools therefore must be in a position to provide this service to students so that they can confidently progress from the school system and be able to either move on to tertiary institutions or into the job market. Many students in the past have found themselves in tertiary institutions or job openings with the wrong subject combinations or with little knowledge of how to conduct or manage themselves in these "alien" situations.

The expression, *barriers to learning*, adopted from New Zealand usage refers to difficulties or problems that hinder learning and hence achievement. Williams (2000) listed examples that impede student learning such as poor attitude to learning, truancy, failure, lack of parental support, conflict between parental expectations and school programmes, family problems, financial problems, environmental restrictions, poor health and nutrition, bad teaching, inadequate student support, insufficient learning resources, and lack of study and learning skills. The MOE *Strategic Plan 2000 - 2020* provides the government's strategic plan for Fiji's education system. It lists as one of its aims and objectives the need to identify the difficulties faced by disadvantaged groups such as Fijians, women, students from socio-economically disadvantaged backgrounds, students from minority ethnic groups, and those with physical disabilities. Identifying these *barriers to learning* will help schools and the MOE to put in place national guidelines to assist these groups.

2.3   Government Affirmative Action

Generally, the adequacy of educational funding has been based on –

a. adequacy for the education and training of the population
b. efficiency with which funds are spent in providing access and in improving the quality of education
c. equity considerations – whether the distribution of available resources is equitable for all groups and regions of the country

(Bacchus, 2000:447)

The percentage of Fiji's Gross National Product (GNP) spent on education has fluctuated between 5.4% and 7.2% and just below 20% of its annual budget (Bacchus, 2000). While this funding for education compares favourably with other developing countries, it is well below those of other small developing nations of similar status to Fiji. The efficiency of education spending is directly related to the internal efficiency of the education system. An internal inefficiency continually highlighted by the Auditor General of government funded schools relates to the abuse of financial procedures (Bacchus, 2000). The large number of cases of corruption and abuse of school funds by managements are also areas of concern. The issue of equitable distribution of education funding is one of greater concern in our education system given the great urban-rural disparity of population distribution and economic activity. The distribution of education funding on a per capita basis is favouring the urban schools more than the rural schools because of the great disparity in school rolls. Whilst the per capita costs of maintaining schools has continued to rise over the years as shown in Table 2.1, the per capita assistance to the schools has undergone very little revision to reflect the changing costs of maintaining schools.

Table 2.1: Per Capita Cost of Primary and Secondary Education

Year	Primary ($)	Secondary ($)
1995	455	742
1996	453	770
1997	475	768
1998	554	897
1999	583	905
2000	695	1190

Source: Bacchus, 2000:445

Successive local governments have initiated and implemented various innovative strategies to address this widening chasm between rural and urban education since 1970. *Affirmative Action Programs* such as fee-free education in the late seventies for primary students and progressively upgraded over the years, 50% government scholarships in 1975 for indigenous Fijians to tertiary studies and the setting up of the *Fijian Education Fund* (FEF) in 1984 were but some of the measures. The volumes of these funds have increased over the years, as shown by figures for the FEF of $3.5 million in 1984 to $5million in 2001 (Bacchus, 2000), to cater for the increasing number of Fijian students.

The initial focus of the FEF was the improvement of physical infrastructures of rural schools and the provision of educational resources and equipment. In the early nineties the focus shifted to a provision of scholarships for higher level studies amounting to about 90% of funds allocated. Statistics show that 2,708 students have graduated from overseas and local tertiary institutions in the period 1984 – 1999, and a budget increase to $8million in 2001 and $10million from 2006 will enable its managing authority, the Ministry of Fijian Affairs, to widen its assistance policy as per its development plan of 40% scholarships and 60% to upgrading infrastructure. (Bacchus, 2000)

The *Social Justice Act* of 2001 legislated 29 programmes of affirmative action for indigenous Fijians, of which 13 are specifically for education and training. The establishment of *Centres Of Excellence* in state run schools in 2003 were intended to

greatly improve the provision of quality education as most of these institutions cater for indigenous students. However, the lack of funding provided for the identified institutions or schools meant that infrastructural developments and academic programmes could not be fully undertaken. Other programmes anticipated further improvements made at the primary school level in isolated island schools but these also went the same way as the *Centres of Excellence*. The programmes are genuine efforts towards addressing the problems of Fijian Education discussed briefly above. Bacchus (2000) recommended that a new national focus on Fijian education is needed because efforts in the past to address these anomalies and deficiencies were commendable but the slow rate of improvement in Fijian education demands a new prioritizing of planning.

The future of any country lies in the development of its human resources, and for a multi-ethnic nation such as Fiji, it is all the more important that no particular group is disenfranchised or disadvantaged through no fault of theirs (Whitehead, 1981). Since it has been accepted that Fijians have been disenfranchised and disadvantaged, genuine efforts must now be directed towards correcting this.

It must be acknowledged that in the years since the release of the FIEC Report of 2000, government has made great progress towards addressing the issues raised in the report and briefly discussed here. The widening economic gap between the indigenous Fijians and other communities is a source of frustration to the Fijians. Improving rural Fijian education is a step towards bridging this gap. The events of 1987 and 2000 are stark reminders of the consequences if we fail to address the needs and aspirations of the indigenous Fijians. Whilst these have never been officially acknowledged as reasons for the above mentioned unrests, they contribute to the undercurrents of dissatisfaction within the indigenous community. The words of Whitehead (1981:200) still ring eerily today:

> The future of Fiji is inextricably linked to the fate of the Fijian people …The longer the Fijians cling to their traditional life-style and the more the Indians dominate the economic life of the country, the greater is the risk of grave future racial trouble.

However, there are genuine efforts being made by everyone to avert a repeat of such events that have only served to set the country back by years. Successive governments, non-governmental agencies and related stakeholders have put in a lot of effort in addressing the problems mentioned above and there have been a lot of changes made to upgrade education in the rural areas. To this end, the future looks bright and promising. *School clusters* may provide poor small rural schools the opportunity to better and wider range of educational opportunities that they may not individually be in a position to offer their students. This alternative could further complement current endeavours towards improving rural Fijian education.

2.4   Summary

The challenges facing the country in the education of Fijians that have been highlighted above are genuine concerns that need to be addressed immediately. While improvements have been noted in the past years, the rate of progress has failed to bridge the gap effectively between Fijians and non-Fijians. Not only must there be a new national focus on Fijian education that addresses the physical resources but there must be a concerted effort made to up-skill and upgrade the qualifications of Fijian teachers who are prepared to serve out in the rural areas. As has been discussed above, *school clusters* can avail to small rural Fijian schools resources and opportunities that they will not be able to afford and offer individually. Through the sharing of resources and in working collaboratively these disadvantaged and disenfranchised students will have access to better educational facilities and a wider range of educational opportunities.

The next chapter, Chapter 3 will look at the literature surrounding this concept of *school clusters*. In the absence of local literature, the focus is on international literature and practices. The selected literature is intended to cover the practice in developed countries but the main focus is on those of developing countries similar to the Fiji context. Continued reference is made to the Fiji context and in particular to the three schools selected for the study so as to enable a comparable conceptual framework for adoption in this local context.

CHAPTER 3

LITERATURE REVIEW

3.0   Introduction

The review of literature will examine the concept and practice of *school clusters* in other countries and in particular, the background to the innovation and the purpose or need for grouping schools and the benefits they derive from such an association. It will finally examine briefly the Thailand model and how it relates to the local context.

The concept of *school clusters* is new to Fiji and in practice, is non-existent in its formal structured and purposeful arrangement. There though exist cooperative efforts between some schools for limited specific purposes, the duration of which is very much dependent on the need. Williams (2000), writing on *Fijian Education* in the FIEC Report, recommended that the concept of 'twinning' schools (similar to clustering schools) be seriously explored, especially in the rural areas. Despite the difficulties of geography and finance cited, they can be overcome with a determined effort. According to Bhindi (1991), this innovation has great potential in Fiji for it can complement current government initiatives such as the *Affirmative Action Programme* (*AAP)* for Fijian rural schools. In the absence of local literature on the concept, the basis for a local framework needed to be built on existing practices in other countries.

3.1   The Concept of School Clusters

The *school cluster* movement originated from Asia (Chapman et al., 1986) and is known by various names: *school clusters* in Thailand and Bangladesh, *school complexes* in India, *school zones* in Sri Lanka and *learning action cells* in the Philippines. Bhindi (1991) described the *school cluster* system as a system of inter-institutional cooperation among groups of schools with a view to sharing resources, facilities, expertise and

educational technology. To this end, Bhindi contends that such a system has a high potential for effectiveness in the South Pacific region due to scarceness of resources, geographical dispersion and variable educational facilities. Velayutham (1986) defined a *school cluster* as a network of schools, within a defined geographical area, created for mutual cooperation and development purposes. Rees (1996) and Kaewdaeng (1985) defined a *school cluster* as a grouping together of a number of schools with the purpose of enabling them to assist one another by the sharing of educational resources available in the *cluster,* and for the economic viability of schools to avoid closure (Nachtigal, 1992; De Grauwe & Varghese, 1998) and the development and implementation of innovations in curriculum (Hargreaves, Galton & Comber, 1995; Walker, 1992).

Chapman et al. (1986) pointed out that whatever name the concept is given, essentially what is referred to is a group of schools working together as a middle-level structure interposed between the individual schools and the total regional group of schools, the objectives being to better fulfill the needs of the schools involved. According to Velayutham (1986) the traditional school systems where schools have developed and functioned as separate entities, have at times competed for the same resources to the detriment of each other. As a result they have failed to adequately address their own emerging and future needs. Over the years new organizational structures and processes have been proposed, experimented with or evaluated. The *school cluster* system is one such innovation which is extensively implemented in the Asian countries mentioned above. As Velayutham rightly points out, while some aspects of the system may not be practicable to the Fiji situation there are aspects that with some suitable modifications can be tried out in our school organizations.

Our education system encourages competition between schools with its emphasis on examination results and as a result less fortunate schools that do not have the resources of the more affluent schools, will always languish at the bottom rung of the schools hierarchy. Success continues to breed success for the top schools whilst the bottom schools slowly slip away into obscurity as parents shun them for the choice of a better education for their children. Such an innovation as mentioned above could provide the

solution to our ailing schools, especially in the rural areas where in being *clustered* with neighbouring sister schools or with more able schools, their standards could be improved upon to provide a comparable and better education (Nachtigal, 1992).

According to Chapman et al. (1986) the primary objective of the *school cluster* system is to fulfill the needs of the schools involved. They outlined two prime purposes for such an organization. The first is that *clustering* provides an organizational means for schools to relate to other schools in the interest of greater effectiveness and efficiency and the second being that from a regional viewpoint, *clustering* provides a readily identifiable focus for regional administration, for better coordinated delivery of services to schools.

A great benefit in such an arrangement is the opportunity for schools to consult with each other about common problems and proposals. They are able to pool together their collective knowledge and experience to achieve jointly-defined common objectives and to devise strategies that can best cater for the needs of their children. Chapman and his colleagues (1986) summarized the rationale for the cluster system with the axioms '*two heads are better than one*' and that '*a problem halved is a problem solved*'. In essence, the *school cluster* system has the potential of ensuring a more efficient use of resources for the main purpose of improving the schools. Reviews of the *school clusters* models in Ethiopia (Gidey, 2002), New Zealand (Yates, 2001), Canada (Rees, 1996), Cambodia (Dykstra & Kucita, 1998), England (Hargreaves, Galton & Comber, 1995) and America (Useem, 1994; Walker, 1992) found that the benefits the schools derived from these collaborative and cooperative associations far outweighed the problems of geography and finance that had deterred many from venturing into this innovation.

3.2 The Practice of *School Clusters*

The schools are selected primarily on the basis of proximity for convenient management, and are usually within a 5 to 10 kilometer radius (Dykstra & Kucita, 1998; Chapman et al., 1986). A host school and its principal are mutually chosen by all to head the *cluster* and help facilitate its administrative functions. Policies and decisions are however made by a committee comprising representatives from all the schools involved and are focused

on their development and improvement, both physically and academically. Funding for the administration of the *cluster* and the development of the individual schools is drawn from the individual school managements, government and other sources such as non-governmental organizations and agencies, community and private agencies or individuals (Yates, 2001; Useem, 1994; Nachtigal, 1992, 1990; Chapman et al., 1986).

In countries practicing *clustering* such as Ethiopia (Gidey, 2002), New Zealand (Yates, 2001), Canada (Rees, 1996), Cambodia (Dykstra & Kucita, 1998) and England (Hargreaves, Galton & Comber, 1995), all except Sri Lanka and India, the models comprise groups of primary or secondary schools forming the *cluster* (Yates, 2001; Useem, 1994; Nachtigal, 1992, 1990; Chapman et al., 1986). In Sri Lanka, the *school zone* consists of 10 to 15 primary and secondary schools with the best staffed and equipped secondary school chosen as the *core* or head school. The principal of the core school becomes the head of the *school cluster* and is entrusted with special responsibilities. In India, the *school complex* comprises one secondary school, about 5 higher primary schools and about 28 lower primary schools. A group of lower primary schools is administered by a higher primary school, chosen on the basis of proximity and the principal of the secondary school oversees the whole complex.

Chapman and his colleagues (1986) also identified several benefits for the schools in the *cluster*. These benefits are examined in the light of the Fiji context:

- *the development of a closer relationship and improved cooperation between primary and post-primary (secondary) schools which is essential for an effective transition or orientation programme and the possibility of curricular planning on a multi-level basis*. At the moment the only coordinated transition programmes exist for some religious or culturally owned schools, such as the Catholic, Methodist, Hindu, Muslim and Chinese managed institutions. To ensure the continuation of the ideals they want inculcated and perpetuated in their children, they provide their secondary schools with a feeder primary school. Although the curriculum programmes are centrally controlled from the *Curriculum Advisory Services* (CAS) at head office, the

avenue and opportunity for the primary and secondary sections to consult and cooperate enable students moving on to the secondary level to be better prepared to make the transition. The set-up also affords the schools the opportunity to coordinate and incorporate extra-curricular programmes to develop the character they want in their children. It is no wonder then that the success rates of these schools, which have a well defined transition path of continuity from primary to secondary, are very high.

The majority of our schools operate in isolation or independently from the other schools and most of these are located in the rural areas. There are no definite pathways for these children to progress from the primary to secondary and they therefore have to go through the normal application processes. Every year thousands of these rural students send their applications to the top performing academic schools in the urban areas but because their marks are generally lower than their urban peers, they cannot secure places in these secondary schools. These students are then left with no choice but to enroll into any secondary school that would take them in.

The new environment and culture require these students to adapt or be doomed to failure. This re-adjustment phase in school is further compounded for these students by the social adjustments at a new home as some of them would have had to leave their parents and move in with relatives in the urban areas. This therefore contributes to the failure rates of rural students who have had to relocate to another school for further and higher education. In school structures where there is continuity from primary to secondary, the success rates of these schools are much better. *Clustering* could provide relationships between primary and secondary schools to provide more definite pathways for students to move from primary to secondary.

- *sharing of specialized knowledge and information concerning buildings and ground maintenance , joint-funding and community use of facilities on the one hand, and of information concerning school policy and curriculum development on the other*. One of the biggest problems rural Fijian schools face is in having an effective school

policy in place. On the other hand, the common factor in all successful schools is having a good school policy to guide its operations (Yates, 2001; Levine, 1991; Chapman et al., 1986). Success can be best duplicated or improved upon if it is managed and planned for and suffice it to say, successful schools have their own recipes for success. Schools in the *cluster* stand to benefit by being privy to such information.

For the small rural schools, there are not enough personnel to provide a wider range of technical or management skills to help manage these schools. The bigger urban schools have a lot more talent to tap into and utilize for the running of their schools. *Clustering* the schools in the rural areas would provide a wider pool of resource personnel to select from. Forming *cluster* relationships with urban schools would further widen the opportunities for these rural schools not only in resource personnel at management level but also at the administrative level of the schools in policy development and implementation.

- *sharing of physical resources such as expensive equipment and use of buildings and grounds*. There are a lot of schools out there today that still do not have access to computers and related equipment and instruments that facilitate and complement the learning process. By being *clustered* together with schools that do have such equipment, these less fortunate schools can expose their children to equipment that they would not normally have access to at all.

According to Bacchus (2000), the per capita cost of educating a child in Fiji is $695 for primary and $1190 for secondary. The disparity in the economic opportunities and livelihood of the school communities in the urban and rural areas has a great effect in the level of education provided by schools in these localities to their children. The predominantly subsistence existence of parents in the rural areas means that these schools are heavily dependent on financial assistance from government. The financial gap between these schools is further widened with the government's formula for financial allocations to schools being based on the size of

the schools. The small rural schools therefore get a budget proportional to their small numbers that is not sufficient for substantial infrastructural developments and academic enhancement.

Unless and until the government revises its budgetary allocations to favour the small rural schools, these schools will continue to deprive their students of the quality education they need to survive out there in the world. *School clusters* can offer an alternative solution to the plight of these small rural schools by pooling their resources together to help each other improve the standard of education they provide their students.

- *cooperation between school councils is facilitated which can further lead to the formation of district associations of school councils which can enable discussion of common problems and solutions.* The axioms quoted earlier by the authors for the rationale of *school clusters* are very much applicable here. Problems that may be specific to a particular school can often be better understood from another perspective or better still have a solution in another school. At a higher level, the think tank has a broader and wider base of intellectual and professional resources available that everyone can tap into.

Religious organizations and government have regular forums that bring together their schools for professional development and to share experiences. They are able to identify common problems and derive or share solutions to address these and enable them to continue to progress and improve on the services they provide their children. The isolated and independent schools do not have this luxury and for them to have access to such opportunities, they need to form into *cluster* arrangements. *School clusters* relationships will be able to avail to the disadvantaged schools the good practices that exist in the better schools. Leadership and financial issues can be better addressed and understood through the sharing of information between the different school councils or authorities that constitute the *cluster*.

- *jointly organized in-service training for personnel or professional development programmes to meet the needs of the school clusters*. As mentioned earlier, there are successful schools that have a specific school culture or ethos that continues to breed them success. Spreading this gospel of success to other teachers can help them lift the standards of their schools.

According to Gidey (2002), in-service training was more successful in Ethiopia when organized and conducted in *school clusters*. The proximity of the schools to each other meant that teachers know each other personally or professionally and are able to relate to each other openly. Even for those who do not know each other, the fact of being in the same locality bonds them together into comradeship and allows for good working relationships. This then creates an atmosphere where the teachers cooperate and share freely and openly in the full knowledge and realization that they themselves will benefit from their activities (Galton, Fogelman, Hargreaves & Cavendish, 1991a).

The other issue of success identified by the above researchers related to the relevancy of the workshop content. The sessions were more applicable to the schools involved as they know their problems and are able to find ways to address these. This is in contrast to the centrally organized large workshops that sometimes deal with general issues that have little or no relevance to the small isolated rural schools. Solutions offered sometimes are insensitive to the cultural contexts of these rural schools or out of context with the situations of the schools. The locally organized workshops at the *cluster* centres were specifically focused on addressing their problems.

- *the preparation of joint submissions for additional resources and specialized personnel*. One of the main problems the Fiji government faces is that of finances and the fact that there is a need to be selective in the assistance offered (Bacchus, 2000). Joint submissions for resources and personnel to cater for a group of schools will help the government cover as much ground as possible in the assistance it offers.

The *Affirmative Action Programme* of the 2001 Fiji government was targeted at financially assisting selected schools. The initial focus of the programme on government schools limited the scope of assistance and related benefits to schools that were already better off than the schools in the rural areas. Whilst the intentions of the programme were noble the benefits could be further reaching if it were to target the small rural schools. The same financial assistance to one government school could benefit a lot more small rural schools *clustered* together for joint development.

- *the cluster can act as advocate on behalf of member schools*. Furthermore, a united voice from a group of schools is much stronger than an individual school and a petition from a group of schools lends more credibility to the request than the selfishness or 'wish list' that would often be attributed to an individual school. It would assist the authorities very much in that they would be able to deal with the united voice of a group of schools rather than the individual demands of each and every school in Fiji; hypothetically, dealing with 15 demands (from 15 *school clusters* of 10 schools per cluster in the 154 secondary schools in the country) would be easier to meet than the 154 demands from all the individual secondary schools.

3.3   The Challenge of Small Schools

The challenge of managing small schools continues to pose a problem for educators and educational managers (Nachtigal, 1990; Fox, 1981). This section will examine the challenges faced by small schools and the benefits that can accrue to these schools, as discussed earlier, through *school clusters* (Chapman et al., 1986).

3.3.1 Economic viability

One of the most serious problems faced by rural schools is that of economic viability relative to size and education provision (Nachtigal, 1992; Fox 1981). The extractive nature of Fijian society today has left most rural schools and their communities depleted

as parents and their children seek better opportunities in the urban areas. This migration is accompanied by the loss of crucial human and economic resources as relatives focus their efforts in supporting those who have moved to the urban centres. The Fiji Poverty Report of 1997 showed an increase in squatter settlements in the urban areas, indicating that parents are moving their children in search of better education. The realization that a better education leads to better employment and escape from their state of poverty continues to exacerbate the poor living conditions of these school children. Overcrowding has also become a problem as relatives in the urban centres accommodate students attending schools in the urban centres and in a lot of cases, their parents as well.

Whilst government realizes the importance of quality education to make communities viable they face the dilemma of economy of scale for effective schools (Nachtigal, 1992; Fox 1981). Educational researchers into the economics of education agree that there is no optimum scale of cost against quality and viable education provision (De Grauwe & Varghese, 1998; Hargreaves et al., 1995; Nachtigal, 1992; Farrell, 1989) but they do concur that closing schools down are not the answer. Communal identity is very much linked to its educational productivity. Successful locals bring prestige to the community and contribute economically to its welfare. According to Bacchus (2000), 225 primary schools in Fiji have rolls of less than a hundred students and 37 secondary schools with rolls of less than 200 students. With the limited resources they have and the financial assistance from government based on school roll, these schools do not have enough funds to adequately develop themselves to effectively provide better quality education for their children.

Cambodia adopted *school clustering* because it had just come out of a civil war and needed a quick fix solution to its educational woes (Prasertsri, 1996). With the necessary international assistance, it made huge progress by focusing development on a central school in the *cluster* which then disseminated the resources to the other schools (McLaughlin, 1982),. This enabled the Cambodia government to provide equitable quality education to more schools than it would normally be able to with the resources it had at its disposal. The dilemma of political mileage, by diluting its resources to a

number of small schools to appease its electorate, against effective quality education was solved by concentrating valuable resources on *school clusters*. With reference to the Fiji context, Bacchus (2000) discouraged the setting up of schools with rolls of less than a hundred students. He recommended that current efforts be focused on dealing with the problems faced by existing small schools faced with closure which directly threatens their communities. Just as in Cambodia, *clustering* can save these schools by grouping them together to share resources. As a *school cluster*, educational assistance from government will be sizeable and enough to make a difference to genuine efforts to raise their standards of education.

3.3.2 Governance

A second problem faced by small schools is that of governance (Yates 2001; Walker 1992). Their small sizes necessitate the same managements in authority for years thereby depriving them of new ideas that evolve with time. A dynamic and innovative school management is essential in isolated rural schools so that they can keep up with national and international trends in education. Such requirements are more likely to be found and more ably met in a larger school community than in small individual rural schools. It can also lead to a high turnover of management making consistency of policy difficult over short terms as parents leave with their children for better developed urban schools (Tavola, 2000).

Walker (1992) found that grouping small schools together in Newark brought about a positive change in the way the schools were managed. Yates (2001) found that in New Zealand there was initially skepticism and suspicion as to individual motives but when management was able to work together, huge improvements were seen in their schools. Reviews of the two systems found that teachers and Principals agreed that a strong and effective school management had helped them in their work and contributed to the improvements seen in the individual schools (Walker, 1992; Yates, 2001).

This problem of ineffective management has also been found to affect quality teaching staff and school leadership (Yates 2001; Prasertsri 1996; Walker, 1992; Barker & Gump,

1964). In most cases the small size of the school community meant a small pool of resource personnel available for selection. In other cases this very problem of smallness also meant a limited pool of trained personnel for such roles as school administrators (Gidey, 2002; Yates, 2001; Berliner, 1990). Senior and experienced teachers prefer to serve in the more stable and successful urban schools for these schools provide them with a better training ground for their future prospects. Successful Principals and Head Teachers find little or no incentive to serve in rural schools but if they do, they are over-qualified for most of these schools are of a small size. In the Fiji context, Bacchus (2000) found that leadership was one of the main problems rural schools were facing, and in particular, Fijian schools. With their limited resources and poor development, well qualified and experienced teachers, head teachers and principals were reluctant to serve out in these schools. Just as *school clusters* had helped address this issue of leadership in Newark and New Zealand, it can also work in Fiji. Raising the standard of these small rural schools will attract highly qualified administrators and teachers to help raise the level of education provision.

3.3.3 Staff quality

The problem of staff quality in Cambodia was effectively addressed in the *school cluster* system as intensive and relevant staff in-service workshops were regularly carried out (Dykstra & Kucita 1998) with the assistance of UNICEF. Similarly, Gidey (2002) found that in Ethiopia, they were able to organize and conduct more workshops for teachers in a *cluster* arrangement and these were also found to be more effective as they directly addressed the individual needs of the schools compared to large-scale one-off training workshops organized on a national level. *Cluster* Principals also found that the confidence levels of teachers rose dramatically and resulted in improved academic achievements in such a setup. In general, the local arrangement encouraged staff development (Spears & Oliver 1996; Vulliamy & Webb, 1995; Hargreaves et al., 1995; Galton et al., 1991a) and served as an incentive for teachers to stay for longer periods and teach in such schools.

3.3.4 Educational opportunities

The limited range in educational opportunities that small schools can offer is another very serious problem that they have to grapple with every year (Dykstra & Kucita, 1998; Hargreaves et al., 1995; Walker 1992; Berliner, 1990). This limits the students' opportunities to gainful employment after leaving school. Apart from not having the equipment and facilities, these schools do not have the necessary teachers and finances. The collaboration efforts of schools in Canada, involved the sharing of professional teachers and allows schools to offer subject options that they would not normally be able to afford or be in a position to offer on their own (Rees, 1996). Teachers of less affluent schools were afforded access to computers and audio-visual equipment to help them in their work. Students also had access to computers and better libraries in the sharing arrangements. More extra-curricular activities were availed to students in the sharing of qualified teachers and facilities such as gymnasiums and sports grounds.

Most rural schools in the remote areas of Fiji are unable to provide a more holistic education for the better development of their children. The academic programmes are sub-standard due to limited resources and under-qualified teachers and these schools are also unable to provide a more diverse range of educational opportunities, such as technical and vocational studies, because they do not have the financial resources (Williams, 2000). A wider range of options can be availed to the students when schools come together in a *cluster* and avoid the duplication and competition that has plagued most of them all these years.

3.3.5 Social development

Data from the review of *school clusters* suggest a positive social development in the parents and students (Nachtigal, 1990). School principals and teachers found that students' confidence levels and self esteem have been dramatically boosted in the expanded school community. Where students used to regard themselves as inferior to students of the bigger and urban schools, they now are able to compete on the sports field as well as in extra-curricular activities. Academic achievements continue to

improve every year and school authorities predict that it will not take long for these schools to be competitive with other more illustrious urban and bigger schools.

Students and parents confess that access to resources and facilities that the bigger and urban schools have, had given them the confidence that on a level playing field per se, they should be able to compete with anyone. The feeling of belonging to a larger community of learners with the necessary professionals available and in access has been a great incentive for them to perform (Nachtigal, 1992). They no longer feel isolated, neglected or inferior to others.

The parents did concede that individually and on their own, they would have been hesitant or outright reluctant to embrace the innovations suggested in *clustering*. Together in a communal partnership they felt confident in that if others saw the changes as beneficial then it must be worth the gamble. Together, they were able to lend each other moral support and the open and frank exchange of ideas had helped in understanding fully the need for the change.

3.3.6 Nation building

In the Fiji context of *school clustering,* the contribution such an arrangement can make to efforts of reconciliation, peaceful and harmonious multicultural coexistence amongst our people cannot be ignored. Imagine state owned public schools, privately managed ethnic and religious run schools all working in tandem for the central purpose of producing an educated population. In the process, relationships are forged and understandings built on trust and friendship from these formative years of coexistence in our children for the future.

The three schools in *The Education Centre* are managed by the state, the Methodist and the Catholic churches. The model of educational cooperation can be further extended to a model of national cooperation where two religious organizations can work hand in hand with the state to provide a better level of education for their children. Where the situation can arise, a Hindu or Muslim and Chinese schools can be incorporated into

such a *cluster* not only for educational purposes but also for the purpose of multiculturalism – socially and economically as envisioned by Subramani (2000). In helping each other to excel academically, they can also learn to co-exist together. According to Subramani, democratic conversations in the field of education can contribute to reconciliation and foster tolerance and encourage goodwill among its citizens, beginning especially with its young people, who will become the future leaders of this country.

3.4   The Thailand Model   (Chapman et al., 1986)

Chapman and his colleagues offered the following advice on the establishment of a *school cluster* system, which has been derived from the Thailand experience.

3.4.1 Organization of the *school cluster*.

The authors recommended a *cluster* consisting no more than 10 schools within the same locality. The basis for selection should be either on geographical location or on conditions of transportation available in the area. It would be convenient to name a *school cluster* after the locality or on other given names that are appropriate and agreed to by all the parties. A leader and secretariat school should then be chosen from amongst the school members by the *school cluster* committee. The head school is normally the most affluent and that is in a position to provide most of the resources or major funding.

The main responsibilities of the *school cluster* will be to enhance academic affairs such as the development of teaching materials and aids, school building and supply, personnel such as the sharing of specialized teachers, pupil's activities, secretarial and financial matters, and the relationship between schools and communities.

3.4.2 Administration of the *school cluster*

It will be necessary to form a *school cluster committee* which should include principals and directors of all the schools in the *cluster* as ex-officio members. Teachers should be represented in the committee but their total number must not exceed half of the ex-

officio members. The chairperson of the *cluster* should hold the rank of principal or director of a school with the term of membership of all members no more than two consecutive terms of two years per term.

3.4.3 Operation of the *school cluster.*

The *school cluster* committee coordinates the work and projects of the school members within the *cluster* and also between other *school clusters* and agencies through monthly meetings. Results and resolutions from the meeting are then reported to the next highest level of authority. It is also the responsibility of the committee to collect and collate statistical information on schools in the *cluster* for future planning purposes.

The budget for the *cluster* is organized and managed according to the objectives of the *school cluster* and of the government as well as other donors. Funds for the administration of the *school cluster* are usually drawn from the individual school managements, government and other sources such as non-governmental organizations and agencies, community and private agencies or individuals.

A common feature of the organizational structure of *school clusters* is the core school or host school. It serves a very important function in that it:

- o   collects instructional materials and aids
- o   adapts and reproduces these materials
- o   promotes, distributes and advises on their use
- o   keeps records of extent of use of different materials
- o   provides technical support in their use
- o   records and maintains the materials
- o   advises other schools and teachers in further development, and
- o   acts as a secretariat to the *school cluster* in carrying out the major aims of the *school cluster.*

Chapman et al. (1986) identified six major aims of a *school cluster,* namely:

- o improvement of academic quality
- o better use of school facilities
- o sharing of personnel
- o coordinated pupil activities
- o relationships between schools and the communities
- o secretarial and financial management

Special emphasis is placed on the in-service training of all teachers and personnel in all the member schools to help them achieve their objectives. This means that teachers of member schools must participate regularly in workshops, seminars, briefing sessions and other training or exchange programmes organized by the resource centre.

A core function of the *school cluster* is to promote the teaching-learning process through adopting and generating innovations in curriculum and teaching methods. Moreover, it is the obligation of the resource centre and the schools within the *cluster* to ensure that they remain a continual source of innovation in mobilizing and utilizing existing human and physical resources. It is also the role of the system to build up its resources of skilled, competent and committed personnel who are dedicated to continuously improving the standards and quality of education in the schools. It must furthermore, be vigilant in promoting the use of educational technology in updating the teaching-learning process and the in-service training programmes for teachers.

3.4.4 Motivation, incentives and cognition

The *cluster* system must have its own built-in mechanism of incentives for motivating teachers. Schools within the *cluster* could be ranked in order of academic performance of students from an internally or externally organized examination, and the same could be done for teachers within a school. Deserving teachers may then be rewarded for their achievements and also be considered for accelerated promotion.

3.4.5 Monitoring, evaluation and feedback

The *cluster* management committee is responsible for the monitoring, evaluation and feedback of the *school cluster*. School visits are conducted by members of the management committee at least once every term to evaluate the functioning of the schools in the *cluster*. The activities of the schools are checked against the original *cluster* plan and calendar. It may also advise on problems and issues encountered by the school management and recommend remedial measures.

3.4.6 The Fiji context

The Thailand model discussed briefly above is quite simple and can easily be adopted and adapted to suit the local context. There are a lot of successful schools in Fiji which have something to contribute to these small rural schools that are struggling to find a formula to bring them success. Successful schools can act as the core or host schools and share their resources and success formula with the disadvantaged schools in the *cluster*. It is no coincidence that senior and 'good' teachers are found in the urban and/or successful schools whilst the new and inexperienced teachers are the ones who through no choice of theirs find themselves in remote and under-developed schools. These young teachers are virtually bullied to taking up appointments in the rural schools because the MOE cannot make senior teachers move to these remote areas. The solution to in-servicing these young teachers lie in such an arrangement as this – *clustering* them together.

Sharing resources and competing with the best can make the disadvantaged schools in the *cluster* better. Not only are teachers sharing their skills and knowledge, but students are exposed to this high level of healthy competition. Apart from the tangible rewards that can be offered to teachers, there is the invaluable reward that students can derive from passing their examinations and the feeling of confidence they can gain from this success. The raising of standards of these schools will possibly be enough of an incentive to lure experienced and well qualified teachers to these rural areas.

The monitoring and evaluation of the functions of rural schools is an area that has been very much neglected by the MOE and specifically, Curriculum Advisory Services (CAS) due to limited personnel resources. However, it must be said that the ministry and its supervisory department have their hands tied due to their limited resources. The *cluster* system provides these authorities the opportunity to ensure the important task of monitoring and evaluation is regularly carried out, not yearly as is the case today but every term, by having this role decentralized. By delegating this role to the managing committee of the *school cluster*, the ministry and CAS can focus their resources onto other areas.

The CAS visits today are more of an inspectorial nature that is, in seeing that schools have fulfilled the basic and core requirements for the external examinations as stipulated in the curriculum and granting the schools approval to present candidates for the examinations. Due to lack of resources, the visiting team of officers is tasked with inspecting subject areas outside their own areas of expertise, which limits the effectiveness of the advisory role they can play. The opportunity presented by such visits in the important task of conducting workshops for these rural teachers is very limited because of the number of schools that they have to cover and the time frame in which they have to do it in. Again, this role of inspection and advice can be more effectively provided by the managing committee of the *school cluster* and on a more regular basis.

3.5   School Cluster Models

Most of the international models covered in the literature review involved small rural schools coming together to help each other to improve education (Gidey, 2002; Yates, 2001; Rees, 1996; Nachtigal, 1992; Chapman et al., 1986). Comparatively, rural schools in Fiji are in worse off condition due to financial limitations, cultural attitudes, low expectations and weak professional leadership (Whitehead, 1986). Other factors such as lack of facilities and resources, inadequate supply of qualified and experienced teachers and poor time management (Williams, 2000) will make it very difficult for an amalgamation of similarly disadvantaged schools to fulfill the purpose of *clustering*.

There are very few rural schools in a strong enough position to take a leading role in making the *clustering* concept work.

This however should not provide a setback for such an innovation for there are enough good schools around that can be convinced and encouraged into such a noble exercise to help unfortunate schools. These well developed schools, irrespective of their locations, can either be directly involved in the *cluster* or play a foster role in its development. The underlying purpose and drive to this initiative is to make the *cluster* work for all the schools involved that is, that improvements be made in educational provisions and achievements. It is for the above reasons that four possible models are proposed for consideration, drawn from the review of literature (Gidey, 2002) and the model of practice adopted by the three schools selected as a sample for this study.

Figure 3.1   Model 1 : Rural-Rural Cluster (RRC)
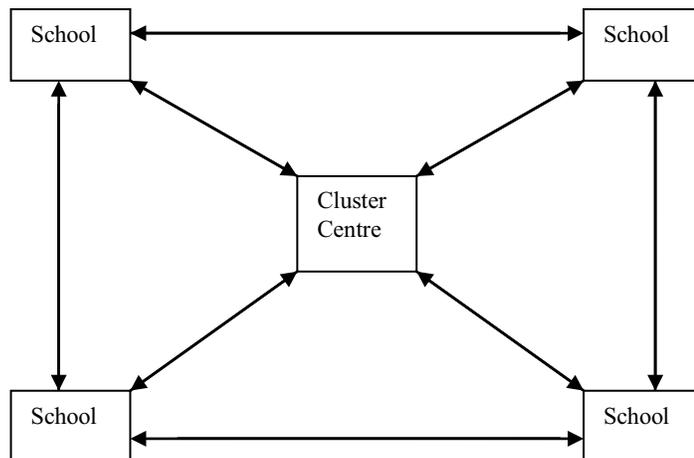
Source: Gidey, 2002.

For ease of access and to cut down on traveling expenses in the Fiji context, it would be best to confine a *cluster* to about five schools in close proximity to each other, within a radius of no more than 10 kilometres and accessible preferably by car or by boat. The most developed school will be chosen as the control school (Cluster Centre), as shown in the diagram above, and assigned the responsibility of ensuring equitable distribution of

resources to ensure the individual schools are able to carry out the functions stipulated in their individual and collective *cluster* objectives.

Model 2 : Urban-Urban Cluster (UUC)

Due to the distribution of schools and their relative capabilities in this case, grouping should focus on ensuring that all schools can mutually benefit from their association. That is, they can complement each other in the education they provide and not be in direct competition to the detriment of each other. Large high achieving schools can act as a control school (Cluster Centre) for several smaller lower achieving schools forming the *cluster* and not necessarily in very close proximity to each other but still conveniently accessible, and as much as possible similar to Model 1 in the set up. The literature reviewed did not have urban *clustering* but in the Fiji context where government and individual schools finances are a limitation to educational development, it is an option that can be explored in the Fiji context.

Figure 3.2   Model 3 : Rural-Urban Cluster (RUC)
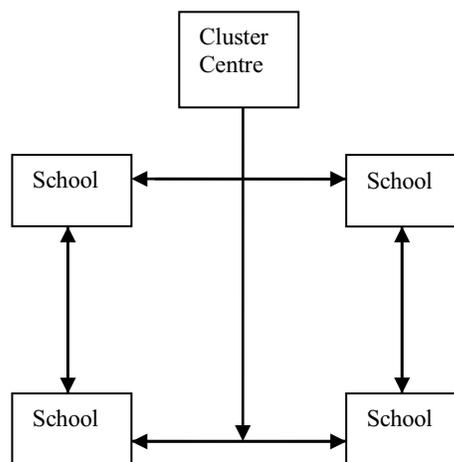
Source: Gidey, 2002.

The possibility of such a grouping should be considered in cases where a group of rural schools in close proximity to each other do not have the capabilities either individually or collectively to take a leading role in such an exercise. A high achieving well developed urban school can take up the foster responsibility (Cluster Centre) of

developing the rural schools in the *cluster* as shown in the diagram. In this model, the *cluster centre* is outside the *cluster* grouping. The benefits to such an arrangement for the future far outweigh the problems which can be overcome with enough goodwill (Nachtigal, 1990). With the large number of small disadvantaged rural Fijian schools, this option should be seriously explored as it may prove to be the only alternative to making this innovation work.

Figure 3.3   Model 4 : The Education Centre (TEC)
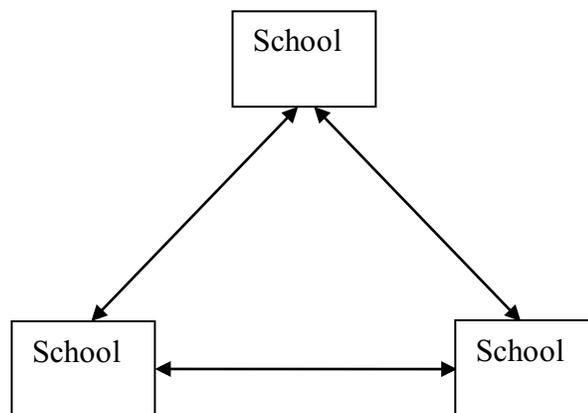
This model is derived from the practice of the three secondary schools in the study sample. In this model the schools co-exist as equal partners, and will be explained in greater detail in Chapter 4.

3.6   A Conceptual Framework for the Study

Shields and Tajalli (2006) had identified different conceptual frameworks which social scientists use to better understand intangible concepts. Difficult concepts are operationalized so that some form of tool can be used to measure it and hence lend comparisons and linkages to other similar or related concepts. In the context of this study, the need for an alternative solution to the problems faced by small rural schools begs a possible answer from the practices of schools internationally as discussed in the literature. The focus is therefore on the concept of school clusters and how they can help address the problems highlighted.

The diagram given below summarizes the discussions above and provides a linkage between the challenges faced by small schools and how the concept of school clusters can help improve education provision in these schools.

Figure 3.4   A Conceptual Model of the Study

CHALLENGES FACED BY SMALL SCHOOLS
→ *Poor Quality Education Offered by Schools*

CLUSTER MODELS
→ *Sharing of Resources*
→ *Qualified School Leadership*
→ *Experienced School Management*
→ *Improved Staff Quality*
→ *Increased Educational Opportunities*

IMPROVED PROVISION OF EDUCATION
→ *Increased Quality Educational Opportunities & Experiences for Students*
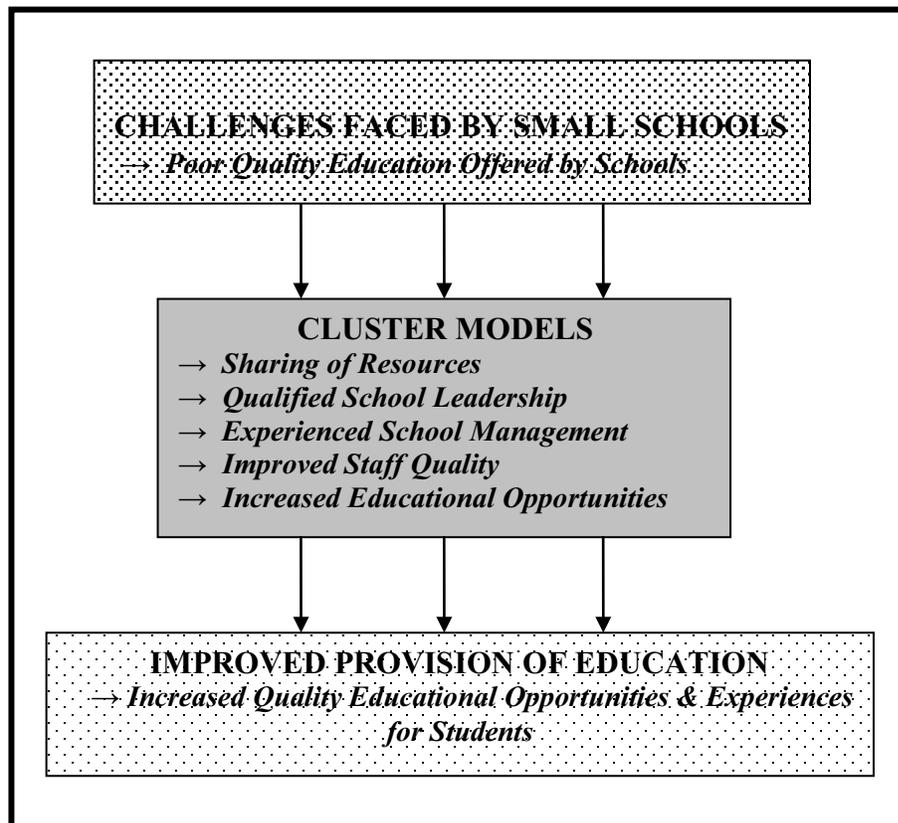
Appendix B shows a more detailed conceptual framework of the study. As discussed above, the challenges faced by small schools in the provision of quality education are issues that need to be addressed directly. The challenges listed in the first column of the diagram, continue to hold these schools back because they do not have the physical, technical and financial resources to address them. With the limited financial resources available to these schools, an innovative approach is needed. This study therefore seeks to explore the possibility of *school clusters* in Fiji as an alternative solution to the current efforts of the school managements and government.

The second column lists the benefits to the practice of *school clusters* that has also been discussed above. Any degree of improvement to the operations of these schools through the realization of these benefits will definitely help the students. The cooperative efforts of the schools could at least lay the foundation for a concerted effort at improving the quality of education offered to their students. Additional assistance from government would also help consolidate efforts towards this end, the improvement of education.

The third column gives the three models that have been taken from international literature; I have coined the *cluster labels*. Models 1 to 3 operate around the practice of having a leading school to act as the head of the *cluster*. The *cluster* initiative in Ethiopia (Gidey, 2002) is based on Models 1 and 3. Model 1 can also work well within the local context with all the schools drawn from within the same locality (rural or urban). In the Fiji context it can be applied to the rural area to form a *cluster* of rural schools (*RRC*) or to schools in the urban areas of close proximity to each other (*UUC*). In Ethiopia the Cluster Centre in Model 3 is selected from a leading school that is not necessarily from within the same locality as the schools forming the cluster or from an urban centre (Gidey, 2002). This is in cases where no school in the cluster is in a position to assume the leadership role. In our local context, such a selection could be extended to a school from the urban area and hence the classification *Rural Urban Cluster* (*RUC*)

Model 4 is drawn from the practice of the three secondary schools in this study and because of the continued and numerous references made by the stakeholders to their arrangement as an 'education centre', for the purpose of this study this model has been labeled *The Education Centre*. No literature or practice that this researcher had been exposed to, locally and internationally, could be found on this practice between the three secondary schools.

The fourth column lists the role or functions of the *cluster centre* and is specifically applicable to the first three models of clustering and has been discussed above in the Thailand Model (Chapman et al., 1986). These functions are shared by consensus between the schools in the fourth model (*TEC*).

3.7   Summary

This chapter reviewed literature relating to *school clusters* as practiced in other countries. The challenges faced by small schools in terms of economic viability, governance, staff quality and educational opportunities had forced these schools to consider *clustering* as an alternative. The sharing of resources had enabled these schools to provide a level of education better than they would have been able to afford individually.

The responsibilities of the *school cluster* as mentioned above had revamped ailing schools and injected new life and purpose to their functions as they received the much needed resources that have always been hampering their progress. The organization and practice of *school clusters* in these countries varied and depended on the geographical distribution of the schools.

The next chapter, Chapter 4 will discuss the research methodology adopted for the study and the justification for the design adopted towards the process of data collection. It will also look briefly at the background of the three schools in the sample and at the practice of school cooperation between them and the formalizing of the concept of *clustering* by a committee representing the three schools.

CHAPTER 4

RESEARCH METHODOLOGY

4.0   Introduction

This study is intended to explore the concept of *school clusters* as an alternative solution to the challenges faced by small rural schools in Fiji in their efforts to provide quality education to their children. Since the majority of rural schools are Fijian owned, the issues covered in previous chapters and possible solutions suggested in the following chapters generally relate to Fijian education.

This chapter looks at the justification for the methodological design to this study and the basis for employing a qualitative approach. It explains the qualitative approach to the data collection processes, the strengths and limitations of such an approach, the procedures followed, the instruments used for data collection and the ethical issues involved. It also discusses briefly the background of the three schools selected as samples and in greater detail the practice between the schools that led to this study.

4.1   Research Design

In reviewing the practice of *school clusters* in their countries after their implementation, researchers adopted a qualitative approach. For example, Yates (2001) in New Zealand, Spears and Oliver (1996) in the review of American Indian schools in Kansas, Praesertsri (1996) in Cambodia and Rees (1996) in Canada. They all found that through this sociological approach, not only were they able to evaluate the performances of the schools quantitatively through statistical data, but they were also able to elicit the underlying causes through open and frank discussions ensuing from interviews. This study therefore undertook a similar approach as that used by the above mentioned researchers in the review of the school clusters initiatives in their countries.

Whilst it is imperative that an objective approach be made in investigating practices and customs of individuals or situations, proper understanding is better made through critical analysis and interpretation (Eisner, 1998). Social structures and inter-personal relationships cannot be fully understood by objective reporting alone. There are multiple perspectives that are often associated with social phenomena that must all be considered equally and therefore must be one of the main goals of a good qualitative study (Maxwell, 2005; Creswell, 1998; Merriam, 1998). Equal attention must be paid to every individual point of view or action undertaken either individually or collectively by the group. Failure to account for all variances can be at the cost of alienating a study population and compromising any findings of the study. Since this concept of *school clusters* is new to Fiji with no formal or official models to form the basis for a comparative study, it was important that all the stakeholders involved in this initiative in the three secondary schools chosen for this study be consulted.

Researchers such as Maxwell (2005), Merriam (1998) and Lauer and Asher (1988) believe that in essence, all inquiry start out in qualitative form when there is little or no information available of the phenomenon or subject under study, variables are unknown and there are no relevant theoretical bases to begin an investigation. This concept of *school clusters* is very much an alien phenomenon to Fiji and even though a theoretical basis does exist in international literature and practices, a proper understanding of the practices undertaken by the case study schools is best served by a qualitative approach.

The qualitative approach taken in this study further finds credence in Peshkin's (1993) justifications that it will be able to reveal the nature of certain situations, settings, processes, relationships, systems and people to the researcher. This can then enable the researcher to gain new insights into the phenomenon under investigation and either review, confirm or develop new concepts or theoretical perspectives (Maxwell, 2005; Strauss & Corbin, 1998). Inherent problems can also emerge when the validity of certain assumptions, claims, theories or generalizations are tested and allow the researcher to take corrective measures. Of greater significance in the context of this study is the fact that the effectiveness of current practices by the case study schools can be weighed

against the established policies and practices of international schools in such innovations.

4.2   Case Study Strategy

This strategy is effective in learning more about people or situations that are little understood and where an in-depth study is needed (Leedy & Ormrod, 2005; Merriam, 1998). It basically involves a detailed examination of a single subject, or group or a phenomenon by highlighting related issues that will lead to better understanding. It is also useful for investigating how individuals, programs or situations change over time due to circumstances and to render support or review of preliminary hypothesis or policies. It can often involve periodic or sustained long term interactions between the researcher and subject through observations or one off personal interviews and study of documents and past records.

This strategy also finds strength in its approach to reality in the personal interactions of researcher and subject at the field level in meaningful and natural settings (Maxwell, 2005; Burnett & Lingam, 2004; Sharma, 2000; Strauss & Corbin, 1998). The down-to-earth approach finds favour with the subjects because of its interactive nature and therefore has the potential to elicit viewpoints and perspectives of people and situations. It lends itself to immediate courses of action as insights can be interpreted and acted upon immediately and in the field of education, it can prove very effective. This strategy is therefore able to provide immediate feedback to the subjects under study, policy makers and researchers.

One of the main problems with the above strategy is that of validity of findings obtained from only one case study. The basis for the applicability of the findings in this study to other parts of Fiji is found in the arguments of Guba and Lincoln (1988) that such applicability is validated by the degree to which one situation is comparable and translatable to another. In an international context, the countries practicing *school clusters* that were chosen for discussion in the literature review were those that have similarities to the Fiji context. America (Useem, 1994; Walker, 1992), England

(Hargreaves et al., 1995), Canada (Rees, 1996) and New Zealand (Yates, 2001) have indigenous communities that are disadvantaged and their governments have affirmative programmes, such as *school clusters*, to address their problems. Other countries chosen such as Ethiopia (Gidey, 2002), Cambodia (Dykstra & Kucita, 1996; Praesertsri, 1996) and Thailand (Chapman et al., 1986) are developing countries that have similar economic resources as Fiji. In the context of this study, the problems that small rural schools face in one part of the country is similar, and in most cases the same, as those faced by other schools in other places in Fiji. Issues such as population characteristics and settings find commonalities in most rural schools and therefore allow for the translation and implementation of the findings.

Time limitations are also issues that justify the limiting of case study subjects, without which, observation of subjects and unstructured interviewing can result in long continuous periods being spent out in the field. The triangulation of these findings with international findings can also help lend credence to the validity of these results and their applicability to other parts of Fiji.

4.3 Sample

The case study approach was chosen because of the need for a thorough understanding of the structure of *school clusters* and how they operate. To achieve this, literature on *school clusters* in other countries was studied. Notwithstanding the proliferation of literature on models in Ethiopia (Gidey, 2002), New Zealand (Yates, 2001), Canada (Rees, 1996), England (Hargreaves, 1995) and America (Useem, 1994; Walker, 1992), the Thailand model (Chapman et al., 1986) had been chosen to draw a parallel with the Fiji context.

Thailand's experience in this innovation dates well back to the 1960s and is very well documented. It was institutionalized by legislative measures and inaugurated on a nation-wide basis. Quality control was assured through the supportive supervision by higher authorities at the District Education Office and the Provincial Education office levels, similar in structure to the local District and Divisional Education Offices here in

Fiji. The Thailand Department of General Education encouraged groups of 5 – 10 schools to constitute themselves into *school clusters* for the primary objective of mutual assistance by the sharing of resources. A committee consisting of school principals or directors was set up to oversee the activities by the member schools and also to encourage them to assist one another in improving the quality of education.

The effectiveness of the *school cluster* system was borne out in 1978 when the Department of Curriculum and Instructional Development used the network to introduce and implement the new curriculum. Schools with qualified teachers and good facilities were selected as lead schools, and they provided academic and supervisory assistance to the other schools in their *cluster*.

In 1980 the National Primary Education Commission recommended legislation with specific regulations. One such regulation states that cooperation and mutual support, both physical and intellectual, should be the guiding tenets for the operation of all work in the *school cluster* in order to bring about improvements.

4.3.1 The study sample – *The Education Centre*

In 1996 a member of the committee of [School C] presented a paper to the Board of Governors on a future direction for the school as an educational institution not only for the community but for the province. Emphasis was placed on how the school could be better utilized to provide relevant education not only to existing students but also to the overall provincial community in the fields of secondary and post-secondary school education. The additional issue of pooling resources/assets of partner schools to provide a wider range of educational opportunities was incorporated. This was done to offer broadened "life skill" educational opportunities at all age levels while at the same time avoiding unnecessary and expensive duplication of scarce human and financial resources.

The vision as propounded in the paper was for such a model to be trialed in these three schools, where Fiji's education system commenced. On completion of any necessary

amendments to conceptual development, it was then to be transferred to other relevant centres nation wide. Although at the time the lack of resources and the novelty of the concept failed to catch on it did, however, leave the school with a new vision and mission. It taught them how to plan and prioritize as evidenced by the production of a 3-year *Strategic Development Plan* and an *Annual Work Plan*. These planning documents were completed before other schools were instructed to produce their own plans by the MOE.

4.3.2 The general concept of TEC

The following scenario was one that had been jointly developed by the principals of the three secondary schools. Although the other two secondary schools in the province have also been taken into consideration for infrastructure upgrading, their relative geographic isolation did not allow for their inclusion into a regular school week schedule. However, it was envisioned that the three pilot schools will be able to provide skilled human resources for particular course instruction to the outlying islands as well as to offer their facilities for specific course instruction during periods of closure such as school holidays.

The initial working committee comprised the principals of the three secondary schools and the Director of the *Special Projects Unit* (SPU) of the MOE, with the author of the paper acting as project consultant. The committee recognized that a centre of potential educational excellence must encompass quality of education at early childhood and primary levels as well. Unfortunately, early childhood education had not yet been formally incorporated into the national public education system then and the primary schools total 36, covering a very wide geographical area. It was therefore felt that although these areas must be addressed in the future, they fell outside the current concept of the centre and had not been included in the budget estimates.

As the selection of centres for education evolves from the concept of an extended campus, other potential locations may face a similar problem of perceived lack of care and concern about the "satellite" schools as illustrated by the situation of the other two

schools in the province. Therefore, in addition to upgrading at the initial development stage, particular attention was also placed on how the "core" centre can assist positively in education advancement for its surrounding school affiliates in order to get the greatest effect from the initial investment.

It was envisaged that the three secondary schools will work together in order to offer the widest relevant number of life skill educational options possible. Since the province is predominantly maritime, encompassing large tracts of under utilized land, agriculture and aquaculture offer the most obvious economic opportunities for the work force. Support for these renewable resource mainstays would require not only education in the fields of agriculture, forests and fisheries, but also in the areas that will provide technical support. Initial essential support would require knowledge in the maintenance of motorized equipment such as outboard engines, tractors, generators and general motor mechanics.

The *Provincial Council* and *District Development Committee* for the province have also identified tourism, in particular Eco-tourism as another potential economic mainstay for the province. In consideration of this, it was felt that other essential life skills to be taught at the secondary school level should encompass education in the field of hospitality management, particularly in the more specific areas of health, safety and nutrition. As actual friendliness and hospitality are endemic to the local people, safe and healthy food and nutrition knowledge is felt to be complementarily relevant. Additionally, this knowledge would be most appropriate in overall family care and child well being, as well as a foundation stone for the provision of services to small and/or micro tourism businesses.

The committee realized that the greatest potential for positive economic impact from tourism in the short to mid term, certainly to the town and community, lies within the domestic market of Fiji. To access the niche markets of the international market place will require considerable capital input and education, to which *TEC* can certainly assist. However, it is believed that the centre would be catalytic to immediate returns from

domestic tourism. Combined with the concepts *of sporting schools* and *schools of excellence*, the education centre implementation for the province would not only provide for future human resource needs, but at the same time would actually be responsible for immediate cash economy benefits.

The last major identified economic platform for provincial development would be the need for a strong, stable and economically active commerce centre. In this regard, the host town is quite naturally well positioned to play this role, but would require a work force that is well versed in not only technical and vocational skills, but also in commercial business skills. This Centre town would be required to be the rural township centre providing a market for accepting neighbouring economic outputs and as well as providing for their needs. It would also be the centre for services, both commercial and social, for the majority of the province.

Reflecting on the foregoing and in conjunction with the general demographics and natural affinity of the three major schools involved, the committee's initial deliberations identified the following functions for each of the schools.

4.3.3 [School A]

[School A] is owned and managed by the *Catholic Education Board* and was established in 1895. It was identified to host Agriculture, Aquaculture, Marine Studies and the Sports Academy. It would also host the Physical Education coordinator for the centre. Not only does it have the land and the close proximity of the sea, it has historically involved itself with such areas as bee and cattle farming and hydroponics. It is envisioned that the school would work closely with the *Fiji College of Agriculture* (FCA) in franchising relevant courses for the students to ensure accreditation of courses taken. The Sports Academy would focus on developing sporting talents in the three schools in the mainline sports of the nation such as rugby, soccer and netball, amongst others.

4.3.4 [School B]

[School B] is owned and managed by the *Methodist Church Education Board* and was established in 1852. It was identified to host potential Technical and Vocational Education in such relevant initial areas as Motor Mechanics/Engineering, Carpentry, Food and Nutrition, Clothing and Traditional Handicraft. It will also host the coordinator for the development of Arts & Crafts in the centre's three schools. The Methodist Church's leanings towards vocational education for school leavers are well known and thus the school should receive the church's support in this endeavour. As with [School A], in order to ensure that courses taken are accepted for national accreditation, the school would work closely with the *Fiji Institute of Technology* (FIT)/*Training and Productivity Authority of Fiji* (TPAF) in the franchising of the final courses.

4.3.5 [School C]

[School C] is owned and managed by the *MOE* and was established in 1879. It was identified to host Form 7 and Information Technology as well as more advanced courses in commercial skills such as business planning, accounting and marketing as well as tourism studies. It would also host the third arm of the current PEMAC curriculum subject, Music – a skilled coordinator for the development of music in the centre. It was felt that the support it gets from the MOE will better cater for the upkeep of these more expensive courses. For continuity it is envisioned that the school would work closely with the *University Of The South Pacific* (USP), *TPAF* and other recognized training institutions such as *New Zealand Pacific Training Centre* (NZPTC) in developing secondary school graduates with recognized certified skills.

4.3.6 The Education Centre proposal

The Education Centre concept was based on three years of cooperation between the three secondary schools. Together with the heads of departments, staff administrators and teachers have been meeting regularly to share professional matters in a give and take situation. In the process the schools have come to a better understanding of their

individual and combined weaknesses and strengths. The whole rationale in the schools working together was to optimize the utilization of resources, minimize duplication and avoid unhealthy competition.

A *Pilot Project Proposal* was prepared by the committee in 2003 and submitted to the *European Development Bank* (EDB)/*Rural Education Programme* (REP) for funding. Parochial interests threatened this submission as the other two schools in the province lobbied for their own individual developments with the backing of their district chiefs. The matter was further exacerbated with the *Education Committee* of the province rejecting the *TEC* Proposal and submitting its own proposal. The *TEC* committee then petitioned the chiefs of the community who supported the concept and signed an undertaking to support the submission by the *TEC* committee for consideration by the EDB/REP. The proposal was accepted in principle in its entirety and handed over to the *Education Committee* of the province for it to take ownership and adopt it as a provincial initiative and innovation to develop education in the province.

In 2004, the committee was given the go ahead to prepare a development plan for the *TEC* which was duly completed in June. The *Pilot Project Strategic Development Plan 2005-2008* (TEC, 2004) had the following:

- *Vision* - "The Province will provide a model for the Republic of the
  Fiji Islands that will act as a catalyst to National Development."

- *Mission* - "To promote and facilitate the development of an educational
  model which will nurture the evolvement of a highly skilled,
  healthy, motivated population and responsible citizens with high
  moral and ethical values."

- *Educational Principles – Learning is at the heart of everything we do.*

- Recognition of the need for and importance of partnerships in all elements of education provision.
- Professionalism in all that we do.
- Relevance and responsiveness as a required characteristic of all our endeavours.
- Quality and Excellence.
- Access and Equity.
- Accountability.
- Our constitutional rights and responsibilities.

- *Educational Values – Educational provision is based on a core of intrinsic and enduring values*.

- Human rights and human dignity.
- Honesty, fairness and respect for truth and justice.
- Integrity.
- Responsibility.
- Compassion.
- Sense of family and community.
- Faith.

- *Objectives –*

1. Develop a *Strategic Development Plan* that is credible and will find support in Fiji and the world.
2. Provide a relevant and responsive curriculum which develops in students the knowledge, skills and attitudes required to enhance their quality of life and contribution to society.

3. Develop students who respect others, appreciate Fiji's multicultural heritage and are responsible, informed and involved citizens of Fiji and the world.

4. Strengthen and promote community partnerships in the management of schools and the provision of educational resources.

5. Develop and support a professional teaching force which is responsible for and responsive to both learning and the learner.

6. Promote quality and excellence in the management and administration of all elements of the education system.

7. Target resources and support to allow all students to achieve full benefit from educational services.

8. Develop and promote sustainable policies and programmes which respond to and anticipate emerging educational needs and demands.

9. Increase educational participation at all levels, encouraging a learning culture with community, recognition of the importance and value of education and training throughout life.

4.4   Instrument

A study of existing literature provided information on *school clusters*, but specifically that of Thailand (Chapman et al., 1986). The time spent in the schools enabled the holding of informal discussions with the teachers after having obtained permission from the principals. All discussions with teachers were held in great confidence and their information was revealed to no one else including the principals. For similar ethical reasons, the interviews with the principals were held in confidence and their information known only to the researcher. Personal interviews, questionnaires and document analysis formed the basis of data gathering.

4.4.1 Interview for data gathering

According to Silverman (1993), interviews can reveal a lot of useful information. Apart from being able to elicit facts, the researcher is able to follow up and obtain related information of the subjects' beliefs and perspectives to the facts. Feelings and motives in

relation to past and present behavioural patterns, standards of such behavioural patterns and the conscious reasons or otherwise for such actions can all be addressed in a one-on-one personal interview.

The sociological nature of this study and its aim demanded a constructivist approach because of the need for a flexible approach towards data gathering (Sharma, 1999). The initial set of questions constructed for the interview was flexibly administered so as to elicit the information needed for the purpose of the study. Furthermore, an open-mind is needed to be able to evaluate and adapt new information which may conflict with the hypothesized models (Creswell, 1998). Any pre-conceived notions of the model that would best suit the local context may need amendments after analyzing the data collected from the field work.

The interview questions were open-ended to enable a thorough exploration of the existing practices of the schools in so far as they relate to *school clusters*. The questions have been framed around three research questions. The third question leads onto the proposed model of *school clusters* that would best apply to the Fiji context.

RQ 1: *What are the challenges faced by the schools in the provision of education?*

    1. What are some of the financial problems faced by the school?
    2. What are some of the administrative problems faced by the school?
    3. What are some of the management problems faced by the school?
    4. What are some of the staffing problems faced by the school?
    5. What are some of the curricular problems faced by the school?
    6. What are some of the community relations problems faced by the school?
    7. Are there any other types of problems faced by the school?

RQ 2: *What are the measures taken by the school to address these challenges?*

    1. What type of programmes does the school have in place to address each of these problems?

2. What assistance does the school get from MOE to address some of these problems?

3. Is there any other form of assistance that the school gets to address some of these problems?

<u>RQ 3</u>: *What is the most suitable school cluster model for the Fiji context?*

1. Can the concept of *school clusters* work in addressing these problems?

2. What type of cluster model would best suit the local context?

Interviews with the primary subjects included an official from the MOE and the principals of the three secondary schools. The questions were structured around the three research questions and openly administered to enable further discussions into issues that needed clarifying or new ones that may emerge as a result. These interviews were conducted in the privacy of their own offices and permission was sought for the audio recording of the interviews. These interviews were in depth and lasted between forty-five and eighty minutes.

The secondary group of interviewees comprised three heads of departments (HOD), one from each school and the three presidents of the Parents and Teachers Association (PTA) of the schools. This latter group was chosen because of their very active role and involvement in the daily running of the schools and more so for their involvement also in the cooperative associations of the schools. The HOD from each school was chosen by the principal for the interview. These HODs were selected because of their direct involvement in staff development and interactions between the three schools. They would have been the best people to know of the professional impact of their programme to the teachers. Permission was sought from the principal for the conduct of these interviews in the school and a room was offered by the principal. Permission was also sought for the recording of the interviews and the PTA presidents and one HOD refused to have their interviews recorded and their rights were respected. These interviews were focused on the selected questions in that no side issues were pursued but only those specifically addressed. These interviews lasted from ten to fifty minutes because some of

them did not offer anything more than a sentence or two by way of answer while the others were more inclined to elaborate on what they were saying.

4.4.2 Questionnaire on cluster models

The questionnaire in Appendix C was administered to gather information in regards to the subjects' preferences for the specific *cluster models* they thought would best suit the three secondary schools. Permission was sought from the principals on the first visit to administer this with the liberty to choose the subjects needed. The questionnaire was administered on the second trip because by then, the subjects were not only better informed about *school clusters* but were in a better position to venture an opinion. The questionnaire was administered collectively to each school group in the privacy of their school libraries during the lunch break and took about twenty-five minutes.

Sampling for the questionnaire covered 50% of each school teaching staff with a similar proportional gender and ethnic spread. All the teachers who took part in the survey questionnaire were personally approached so that the purpose of the exercise could be explained to them. Each of the subject's permission was sought and agreed to before the participants proceeded to the library where they responded to the questionnaire.

4.4.3 Document analysis

The only documents that were offered for scrutiny were discussion papers relating to the formulation of the *Strategic Development Plan* governing the establishment of the *TEC*. These documents were volunteered by the principals and they outline the vision, mission, principles and values of the TEC. They also show the level of cooperation that the three schools have agreed upon and the objectives they have set for themselves and the strategies to achieve them. Funding sources have also been identified together with strategic timelines for the achievement of the various strategies.

These documents were important in that they provided more insight into the topic under research in regards to the activities of the subjects under study (Yin, 1989). They

enabled the verification, corroboration and augmentation of data obtained from the interviews and the literature reviewed. Whilst no specific mention was made of the concept and practice of *school clusters*, it was evident from discussions with the principals, teachers and parents that their understanding of the initiative encompasses the basic principles of the initiative of *school clusters* internationally. Only the school principals have a proper understanding of the theoretical framework governing the practice as the initial planning phases have been limited to the school heads.

4.4.4 Data analysis

Making sense out of the maze of interviews was perhaps the most difficult task in this exercise and as Creswell (2003) pointed out, it involved carefully and painstakingly preparing the data for in-depth analysis. Reading and re-reading the transcripts helped in understanding the data and in relating it to the questions covering this research (Merriam, 1998; Silverman, 1993; Yin, 1989). This was important in the absence of local models and literature in relation to the concept and practice of *school clusters*. A deeper meaning of the information unraveling was better achieved by comparing this new information with the documented international models and literature on the concept of *clustering*.

The interview transcripts were then transcribed and returned to the subjects for verification and signing. After the transcripts had been verified, then began the process of analyzing the data within by reading and re-reading the transcripts (Merriam, 1998; Silverman, 1993; Yin, 1989). Issues that relate to the research questions that had been drawn up right from the outset were identified and grouped together under these headings. These similar data points were then finally summarized into common issues for clarity and easier understanding.

After all the relevant data had been grouped under the research questions, the relevant issues that had been raised in the literature review in regards to the problems of operating small schools and the need for *school clusters* were then addressed. From this

data *clustering* models for primary as well secondary schools, which are the main focus of this study, were then proposed.

The data from the questionnaire was compiled into a table under the relevant statistical analysis and is presented in table form in the appendices. The responses to the choices were tallied into the frequencies of support for the *cluster* models proposed and are shown in Appendix D.

4.5   Procedure

The whole process towards the research project began with the drawing up of the research proposal with the help of this researcher's supervisor. The research topic, *school clusters* and how this concept and practice could be implemented into the school system to help address the problems rural schools are facing had been earlier decided by this researcher. After the *School of Education (SOE) Postgraduate Committee* had approved the research proposal, all the other related processes were then put into place

The permission of the MOE was next sought and an introductory letter of approval was given to carry out research in the schools that had been chosen for the sample (Appendix A). A condition of the approval granted by the ministry to do research in its schools was that a copy of the findings to be submitted to them. Fijian protocol was followed in the approach to the schools even though this researcher knew the principals personally. One of the teachers known to this researcher was selected and acted as the 'mata ni vanua' to present the 'sevusevu', a "ceremonial offering of 'yaqona' by the host to the guest, or the guest to the host and done in respect of recognition and acceptance of one another" (Ravuvu, 1983). Despite the principals having been called earlier and explained the purpose of the visit, the 'mata ni vanua' mentioned everything in the ceremonial presentation for the benefit of all the other teachers. In traditionally being received, the principal had in essence told the teachers that this researcher had been given free access to the school for the purpose of the visit. A request was also made to share with them whatever information the researcher had or found out from the research so as to help them with what they were doing for the benefit of their children. This customary way of

seeking access sets an intimate and friendly atmosphere to the duration of association between guests and hosts (Sharma, 1999). After the formal and traditional ceremonies of introduction and acceptance, the principal was then interviewed in his office followed by the HOD and PTA president in a room that was allocated by the principal.

At the end of the day, another 'sevusevu' was presented to thank the principal and the teachers for their time and contributions as well as the morning tea they had prepared for this researcher. A 'talanoa' session then ensued around the 'tanoa' in which everyone including this researcher, sat down with the principal, the teachers and some parents (some of whom are business people) to share in the traditional drink, 'yaqona'. The open discussion revolved around the practice of the three schools as teachers and parents talked about their experiences. On the next two days the same procedures and activities were repeated in the other two schools

After the interviews had been transcribed, this researcher then went back to the schools and again presented a 'sevusevu' in each of the schools to once again ask permission to enter their schools. It was also intended to thank them for receiving this researcher and for their previous cooperation and help offered. The transcripts were then shown to each of the concerned interviewees and after they had read them, they then signed the transcripts. There were no major changes made to the transcripts as they pretty much concurred with the transcript of the interviews. There was also no open discussion of the interview transcripts as they were confidential. Permission was then sought from the principal to administer the questionnaire to the participants that had been selected from the school. This procedure was then repeated in the next two schools.

4.6   Ethical Considerations

Initial clearance to do research was given by the School of Education (SOE) Postgraduate Research Committee through the acceptance of the *Statement of Intent*. A supervisor was then appointed to guide this researcher in the research and thesis preparation. With the assistance of the research supervisor, a research proposal was then prepared and submitted to the *SOE Postgraduate Research Committee* again for their

approval. After the *Faculty of Arts and Law (FAL) Research and Postgraduate Studies* as it had now been renamed had accepted the proposal, the necessary clearance from the relevant authorities was then sought to allow for the commencement of research work.

The necessary approval was then granted by the MOE (Appendix A – Research Permit) with the understanding that a copy of the research findings will be sent to them. Letters were sent to the three school principals informing them of this researcher's intentions and of the approval granted to carry out research in their respective schools. Before this researcher left for the schools, the principals were personally called and introductions made and access to do research in their schools confirmed.

All the participants (3 principals and MOE official) in the primary category of interviews were thoroughly briefed individually on the purpose of the research before their consents to be interviewed and the interviews recorded were sought. These in depth interviews were carried out in the privacy of their own offices and the transcripts of the interviews were returned to them individually for their personal endorsements before they were analyzed and then filed away in confidence (Merriam, 1998).

The participants in the second category of interviews were individually approached after they had been nominated by their individual principals. They were informed of their principals' nominations and the nature of the research was then explained to them. Their consent to be interviewed and also to have their interviews recorded were also sought. For the four participants who did not want their interviews recorded, notes were taken during the interview sessions. The interviews were carried out in the privacy of their school libraries and the transcripts were returned personally by this researcher for their verification before they were analyzed and filed away in confidence. All care was taken to ensure that the participants in these two categories of interviews were not unduly exposed to any physical risks or emotional duress during the interviews.

The 'talanoa' session at the end of the day with the principal, teachers and parents also yielded a wealth of information. The participants were informed openly and collectively

that some of their comments would be noted down and nobody objected. In using some of these comments, no direct attribution or acknowledgment has been made as this anonymity was taken as a protection of confidentiality.

Since every participant was attended to in their own work environments, no one was unduly exposed to any form of physical risk. The individual and prior briefings with each participant and the confidence in which all interviews were carried out did not in any way expose any participant to the ridicule of ignorance from his or her colleagues (Maxwell, 2005; Merriam, 1998; Yin, 1989). The documents that were availed for this researcher's perusal were returned. There has been slow progress in this initiative and they thought that the more publicity this received, the greater the chances the authorities would notice and take a more interested consideration of this practice. After the confidential and ethical issues involved in disclosure had been explained to them, they finally agreed to erase specific references to identity and so no specific mention of names or schools have been made. They finally agreed not to publicize the *Strategic Development Plan* for *The Education Centre*.

4.7   Summary

The qualitative case study design has been adopted here with the three schools selected for this study so as to be able to gauge the practice as it is in these schools and to be able to compare notes with those in other schools overseas. The strategies employed in the methodology above have been largely used to review the practice of *school clusters* overseas as found in the literature.

In the process of data collection, all ethical considerations were taken into account in the context of this study. The safety of the participants were ensured by holding interviews in their own surroundings in which they felt safer and were more comfortable in. Confidentiality of information from participants was of paramount importance as all transcripts were revealed only to the participant concerned and filed away safely and securely. Cultural and professional protocols were observed in the visits to the schools during the collection of data.

The next chapter, Chapter 5 will provide an analysis and discussion of the results in detail, under the research questions adopted to guide this study. A thorough discussion of the data will be made in relation to international literature and specifically to the practice of school cooperation between the three secondary schools in the study.

CHAPTER 5

ANALYSIS AND DISCUSSION OF DATA

5.0   Introduction

Due to the relative small sizes of rural schools, it has become uneconomical to maintain them in the face of rising standards of living and modern trends in education provision (Nachtigal, 1992). New technological developments that give students that extra edge or advantage in learning are basically out of the reach of these small schools. As a result, these students are disadvantaged and will continue to struggle up the echelons of the education system through no personal fault of theirs.

The purpose of this study is to investigate how the concept of *school clusters* can be used to help address the problems of education in rural areas. This initiative has worked very well in countries with disadvantaged indigenous communities and developing countries with limited resources as discussed in Chapter 3 of the literature review. Due to the absence of local literature, reference will be continually made to international literature. This study therefore looks at contemporary issues in rural education especially in the problems these small schools face daily and it also looks at international practices in *school clusters* and how some of these models can be adapted to suit the Fiji situation.

This chapter discusses the data by presenting it in an analytical form under the research questions proposed and relates it to the literature in Chapter 3. Under each research question, the implications of the data was critically analyzed and discussed in the context that it relates to in the scheme of problems that the schools face in the provision of education.

Analysis and discussion of the data will be based on the three questions that form this study:

- RQ 1 – What are the challenges faced by the schools in the provision of education?
- RQ 2 – What are the measures taken by the school to address these challenges?
- RQ 3 – What is the most suitable *school cluster* model for the Fiji context?

5.1   <u>RQ 1</u>: What are the Challenges Faced by the Schools in the provision of Education?

The challenges facing rural schools have been discussed in Chapter 2 and as the data shows, still exist and which they have to deal with every day. Analysis and discussion of data under this question will focus on:

- The economical context of school sustainability
- School governance
- Staff quality
- Educational opportunities

5.1.1   The economical context

Due to their relative isolation from the main economic centres, industrial development is very limited. For these schools, their livelihood depend on the continued functioning of the fish factory, Pacific Fishing Company (PAFCO), since most of the parents in most of the schools, primary and secondary, are employed by the company. A small portion of parents live off the land and the sea, selling their produce in town to the workers on salary. The remaining parents are civil servants and business people. One of the parents who is also a businessman confided that the survival of his business depended very much on PAFCO workers.

> Without PAFCO, there will be no businesses and no town. We business people depend on these workers. Because they get paid every week, we get good business every week. When PAFCO slacks down and workers don't work every week, our takings for the week are very low…we cannot survive on just government workers…there are not enough.

> (Businessman, 2006)

The manager of one of the bigger retail businesses in town and also a parent echoed the same sentiments.

> Our sales are very much tied up with the PAFCO…when there is a down period, our sales go down and when there is (an) up period, we go up too. Two years ago when PAFCO had a bonus payment for their workers, we ran out of stock…no more TVs or stereos or fridges…even our furniture stock was sold out. Last year when business was down and workers went on roster, we had to take back a lot of those items because a lot of the workers could no longer make the monthly payments.

> (Shop Manager, 2006)

The principals of the three secondary schools also expressed similar concerns in the context of their schools and the difficulties they face every year financially. One of the principals summed up succinctly their concerns.

> The parents of most of these children work at PAFCO and they depend entirely on what they earn for their living… the education of their children, the *vanua* levies, the church levies, family and community demands and of course their basic family needs. Because of the demanding nature of the work, families with both parents working at PAFCO whole day for six days, they do not have the time to farm and so have to buy all they need. Even when PAFCO is in full operation, we still have problems collecting school fees but when work slows down, we have a lot of outstanding fees.

> (Principal School C, 2006)

One of the school managements expressed similar financial concerns from the parents' perspective.

> My wife and I both work at PAFCO but we still have problems paying the school fees of our two children in the secondary and the one in primary. I work the whole day from Monday to Saturday and my wife sometimes is on night shift and we have to buy food for the family because I do not have a lot of time to go to the plantation…with all the church and *vanua* levies we always struggle. I don't know how parents with only one working survive.

> (PTA President School C, 2006)

One of the HOD's who is also a parent expressed similar sentiments on the financial plight of the parents in regards to their children's education.

> In the beginning I used to be very hard on students who do not have all the necessary school things like books, pens and other things needed by most school children. But when I realized how much some of these parents go through, I really feel sorry for them, the parents and the children. How these children can go on in their education after here I just don't know. What their parents earn is not enough for secondary school. I can't imagine higher education.

(HOD School B, 2006)

The limited source of revenue for the community certainly has a big impact on the functions of the schools. Revenue projections have frequently been affected due to the periodic downturns in the fishing industry and hence the fish factory. The long term viability of the fish factory's existence in its current geographical distance from the capital is already a national issue and again puts more pressure on the functioning of the schools. The principals are already expressing regret should the factory close down or relocate for some of their schools will close down due to financial reasons. They all express a hope that the government will either help sustain the existing fish factory or develop alternative economic activities for the community to provide the parents with more financial opportunities and assurances.

5.1.2   Economic sustainability of schools

The economics of maintaining their schools or to keep them viable are today a real issue with heads of schools. It is becoming more and more difficult to sustain their schools to be able to continue to provide the functions that they were set up for. The main problem identified by school heads is that of finances.

5.1.2.1   School fees

The common financial problem faced by the three secondary schools is basically one of school fees. The unpredictable and uncertain economic climate in the community has certainly affected income needed for school development. Every year there are

outstanding fees that hamper their efforts and plans for development. The principals of the three secondary schools faced similar problems in regards to the payment of school fees, the main source of revenue for school development.

> If we could but collect 80% of the fees due, we can do more for these students. We have plans for development and improvements of current infrastructure and to improve educational programmes but we can only do so much with the funds we have. I am not talking about 100% fees collection …we sometimes have fees arrears of more than 50% which amount to thousands of dollars… if I could only get that 80% ... but if I could get 100%, imagine what we can do.

> (Principal School B, 2006)

> The problem for us is not as critical as my other two colleagues because more than half of the students here come from the main land in Viti Levu. Their parents are better off financially and even though we do have fees arrears from some of these students, they are not so bad and they eventually do get paid. The majority of our school fees arrears come from the local students here whose parents are either PAFCO workers or farmers.

> (Principal School A, 2006)

> We do have a serious problem of school fees arrears…as a government owned school we are always threatened with being surcharged for non-collection of government revenue but when we threaten parents and send students home, we are told we cannot do that. But there is really no other way…parents simply just cannot pay or will not pay. I do not know of any year when all fees for that particular year have all been collected…I've talked to some of my colleagues before me and they all said the same thing.

> (Principal School C, 2006)

The management of one of the schools had very bluntly blurted out his frustrations due to the lack of funds for school development as a result of the non-payment of school fees.

> Every time we have school meetings parents complain about the poor state of some of the buildings but we can't do anything because there is no money. If they do not pay the fees then there is no money to repair the buildings or build new ones. They also complain that we should provide text books for their children but we do not have money to buy them because they do not pay the

school fees. If they want better education for their children then pay the school fees…otherwise no way.

For the secondary schools, this is the real problem they face every year. Even schools in the urban centres do face a similar problem but it is more acute in the rural areas. The frustrations of the heads of schools are very real as they can only continue to remind and plead with parents to pay school fees for they have no other recourse. They are not allowed to punish students in any way for the non-payment of fees and as such, not only do the students who do not pay fees suffer but also those students whose parents pay their fees because the schools are unable to provide the education they had planned for their children.

5.1.2.2   MOE grants

The finances of these schools are supplemented by grants from the Ministry of Education such as for infrastructural development and educational needs. These grants are calculated on the basis of the school roll and for those with a small roll the grant is much less than those schools with bigger rolls. The heads of schools have expressed a need for a larger chunk of the government's grants to schools for their own developments but they do realize that with the small rolls they have, they can only get so much. Attempts to increase their school rolls are hampered by the limited feeder pool they have at their disposal to select from and the availability of infrastructure to accommodate such an increase. This vicious cycle of improving school performance so as to attract more students into the school and increase their roll to be able to qualify for a bigger grant from the Ministry of Education is one in which the three schools cannot seem to find a way out of, and as expressed by one of the principals.

> I know that if I have a bigger roll in my school, I will get a bigger grant from the ministry and I can use that to develop my school. I also know that I will have to improve the standard of my school by getting good results and only then will parents send their children to my school …(but) … I can't improve the standard if I don't have the money and I need the roll to get more money … this is the problem I have.

The money we receive from the government (MOE) is not much because we are just a small school. We can only do a little at a time...some repairs here and there, buy a few books for the school and that's it. What the government (MOE) should do is look at small schools like us who need their help more than other bigger schools in the cities…they are already rich and they get more help from the government (MOE) while we are poor and continue to remain poor.

The ministry should seriously re-look at the assistance they provide for small rural schools like us out here and others. If they want us to perform like the bigger urban schools then they must give us the resources. We cannot increase our roll because we do not have any more classrooms. We have been applying for another two classrooms without any success. The assistance we have been getting is just enough to maintain the programmes we have in place. We cannot do anything else.

With the limited funds they have at their disposal to use for their schools, the principals raised the problem of maintaining their schools at a standard that they can afford, let alone to a standard above to be effective educational institutions. They have found that every year the cost of just maintaining what they have in their schools is rising. The immediate struggle for them is to make ends meet and keep their schools functioning. It is therefore almost an impossible task for them to implement the changes they need for school improvement to be able to compete with other schools.

5.1.2.3 Fundraisings

One of the biggest problems faced by these schools is the overlapping of the stakeholders in that some parents have children in all three schools, not to mention those in primary. Due to the relative competitive nature of the schools and their varying standards of academic achievements, the schools take in students almost entirely based on the academic capabilities of the students. There is little or no consideration given to whether an applicant has a sibling already in the school and is either admitted or rejected

purely on academic merit. Parents with children in one or two or even three of the schools are then left to bear the financial levies of the schools demanded of their children.

> I have two children in [School A] and one in [School B] and it is very difficult for me to look after them. My third child did not qualify to go to [School A] where my two older children have gone and even though I begged the principal he said he must be fair to everyone and apply only one rule. Now when [School A] have their bazaar I sometimes have to pay double when they levy per child … but if on family then that is good for me. When [School B] have their bazaar then I have to again pay the levy there. It's very hard for me but I want my children to go to school so I have to pay.

> (Parent School B, 2006)

The dilemma faced by the above parent is quite common in the community and with the limited financial resources mentioned above, further impoverish the struggling parents. The other side to this predicament of the parents is that a lot of them are unable to meet all the financial demands, further limiting the financial resources available to the schools.

Community support in such activities is a bonus and the more there are during a school's bazaar, the greater the extra or unbudgeted funds for the school. However, for a community with three schools in close proximity to each other the source is basically the same.

> Some of our parents are parents of the other two schools and even our supporters and friends too. So when we have fundraisings, we will not be able to get all that we would normally expect if we were the only school around here. Our parents and friends have to plan for the other schools' fundraisings also. And if you have three major bazaars in one year, that is a lot. Not to mention the fundraisings in the villages for the *vanua* and the church.

> (PTA President School C, 2006)

5.1.2.4   Discussion on the economic sustainability of schools

This is basically the problem rural schools are facing – that of economic viability relative to school size and quality education provision (Nachtigal, 1992; Lockheed & Verspoor, 1991; Streifel, Foldesy, & Holman, 1991; May, 1990; Blum, 1990). Due to the small sizes of these rural schools, they do not receive enough government funding and the economic livelihood of the community does not provide their parents a wealthy enough source to adequately meet their financial commitments to the schools. This compromises the quality of education they are able to provide their children and whilst some of these small schools would have been better off closed, this would have provided a worse scenario socially and politically (De Grauwe & Vargheese, 1998; Spears & Oliver, 1996; Hargreaves et al., 1995; Nachtigal, 1992; Monk & Haller, 1986). These schools give their communities a sense of identity and provide a catalytic effect for their sustainability and existence through past successful students serving as role models.

Clustering schools together enables them to pool together whatever meager finances they have to jointly fund necessary education resources that they would not individually be able to afford as suggested in the literature (Lockheed & Verspoor, 1991; May, 1990; Blum, 1990; Farrell, 1989; Chapman et al., 1986; Fox, 1981; Barker & Gump, 1964). Together they can purchase expensive physical equipment such as computers, printers and photocopiers which they can all share. Special classrooms such as science laboratories, core-curricular areas such as music and sports equipment can also be shared. In essence, all students in the *school cluster* will now be able to have access to all these educational opportunities which would normally have been unavailable to them had they been on their own.

When Cambodia came out of its civil war, it needed to rebuild its education system. It accepted that it did not have the necessary financial resources to overhaul the system overnight and so it adopted the concept and practice of *school clusters* (Praesertsri, 1996). Resources that would have been insignificant disbursed to individual schools were able to achieve much when concentrated on a central school in the cluster. The

resources were shared by all the other schools in the cluster and the benefits filtered down to all the students served by these schools.

Thailand experienced huge progress in school improvement amongst its small rural schools in the cluster arrangement (Chapman et. al., 1986). The central management of financial resources ensured equitable developments in all the schools within the cluster; no one school was disadvantaged. Resources both financial and personnel were disbursed to the schools in line with the development plan collectively developed by all the stakeholders of the schools in the cluster. Joint submissions for resources on behalf of the schools in the cluster to central government were more effective in eliciting positive responses than when the schools functioned individually. This advocacy role of the lead school has been very effective in bringing about positive developments in the schools (Chapman et. al., 1986).

Similar arrangements as those in Cambodia and Thailand for the three schools in the study would enable them to share resources and avoid the competition that has been detrimental to their individual progress (Velayutham, 1986). Whatever limited resources each school has could be focused on maintaining and developing the infrastructure necessary for the disciplines they offer. This would also enable the MOE to develop infrastructure and resource disciplines that can be shared by the three schools rather than duplicating them in each school. Development in the schools could therefore be accelerated and be more relevant to the needs of their children. Combined submissions for assistance to MOE would receive a higher priority than it would be for the individual schools. Furthermore, if the same formula for financial assistance was to be used, than the combined submission would receive a more sizeable grant.

5.1.3   School governance

Another major problem faced by the case study schools is in relation to management and leadership – management provided by the stakeholders and leadership by the school heads. Literature abounds on how good governance is crucial to the operations of

schools and correlate highly with successful schools. Bacchus (2000) also highlighted this as a major problem in our rural schools here in Fiji.

5.1.3.1 School management

The relative small sizes of these schools and their communities mean there is only a small pool of resource personnel available to manage these schools. In one of the schools in the study, management personnel have been in office for more than ten years because there is no one else to choose from or to volunteer for the job. The Parents and Teachers Associations (PTA), together with the school managers play prominent roles in the management of these schools.

> My school PTA President has been in office for the last eight years I have been in this school. Before I came he was President for already three years. He had asked many times to step down but the parents keep asking him to continue because there is no one else who wants to do the job. His children have all finished from this school and he says he is doing it because his children had gone through the school and he cares for it.

> (Principal School B, 2006)

For the above school PTA President, his commitment to the school could not be faulted but as an ordinary villager without a decent enough education to empower him in his managerial role, the school was missing out on the dynamic and visionary modern school management needed to keep the school up to date with new developments in education (Yates, 2001; Walker, 1992). For all his good intentions, the manager depended on the Principal for direction and instruction and as a result, the Principal was in sole charge of all affairs of the school and the President's position was basically ceremonial.

There have been occasions when the high turn-over of school management has seriously affected the ability of the schools to plan and implement strategies for development. In School C, they had three presidents in the PTA in five years and no treasurer in the association had served for three years in the post for various reasons, among them being

differences with the Principal. One of the main reasons however of the high turn-over is of parents moving on when their children finish off from the school. A former school PTA President said he saw no role in the school for him when his son finished from the school.

The area of greatest concern however lay in the pool available in the community for the effective management of their schools. The smaller the school, the smaller the pool to select from and even though there may be no shortage of volunteers, it is what they have to offer the schools in their roles as policy makers that is of question (Yates, 2001). The problem is more critical for remote schools due to their isolation resulting in difficulties in communication and geographical accessibility. Most well to do families have migrated to the urban centres following the successes of their children and harsh as it may sound, those who have failed in the school system, are mainly the ones left behind in the villages.

> We are very proud of our children and parents who do well and move on to bigger schools and also to the towns and cities. This however creates another problem. Some of them are good supporters of the school and some are office bearers in the school management … [and] … when they leave, we find it very hard to replace them. It's like all the good work they do go with them because sometimes the ones who replace them cannot continue with the good work they have done.

> (Principal School C, 2006)

In Cambodia, their small rural schools did have the same problems experienced by the three schools in the study – that of poor educated managements or that of high turn over. However, when these schools came together into a cluster, they were able to share management experience amongst themselves in a forum that utilized all their available resources in this area (Praesertsri, 1996). In Thailand, cooperation between the school councils led to the formation of a district association of school councils to discuss common problems and solutions (Chapman et. al., 1996).

In the three schools in the study, their managements were able to talk to each other in regards to issues common to them in the provision of education. Whilst the level of cooperation had not reached that of the Thailand model, they were able to engage as the schools in the Cambodia model. That is, they were able to share their experiences and find solutions to the problems common to each other. School A had a very stable management established over the years and was able to contribute quite significantly in helping the other two schools with issues that they would have struggled with for some time. This sharing of knowledge was only possible through the practice of *school clusters* that the three schools in the study had entered into; it wouldn't have come about had the schools continued to function on their own.

5.1.3.2   School leadership

Effective school leadership has also been found to be a major problem in small rural schools. As Bacchus (2000) noted in the FIEC Report, the poor status of these small rural schools provide very little or no incentive for good quality school leaders, and teachers, to serve in these areas. As a result, they have no choice in the type of school leaders posted to their schools, having to do with newly promoted teachers on their first postings who have no say in their assignment. As soon as these teachers gain enough experience, they apply to move on to the bigger and better developed urban schools. In essence, these small rural schools become the breeding or training grounds for future leaders of the education system. As one school manager remarked, they could not blame the principals for leaving because there is nothing much they could offer them.

> From the principal to the teachers, we always get the same thing…they come they spend a few years then they want to move to the city. The principal comes…make(s) a lot of changes and then move(s) to Suva. The next one come(s) and do(es) the same thing. We have some very good principals before but because they never stay for long all the changes confuse the parents and us the committee. We want some of them to stay for long.

> (PTA President School B, 2006)

The flip side to the above problem is that qualified school leaders who are willing to serve in some of these small rural schools for traditional, relational or professional reasons are unable to do so because they are over-qualified. The relative grading of their positions and of these small rural schools do not allow them to serve in these schools. The struggle for these school managements to improve their schools enough to be able to attract good quality school leaders is ongoing in this vicious cycle they find themselves in.

> We are fighting a losing battle here…as I said (earlier)…we need to improve the school to be able to get the type of teachers and school leaders we want for our children…(if)…we can improve our results and increase our roll and get more grants to build more classrooms…(then)…maybe we can get some of those "big" principals in those "big" schools in the city.

(PTA President School B, 2006)

5.1.3.3   Discussion on school governance

Just as Bacchus (2000) had noted in the FIEC Report, Yates (2001), De Grauwe and Varghese (1998), Walker (1992), Blum (1990) and Farrell (1989) also reported that ineffective school managements in small rural schools were hampering the progress and development of these schools. As school owners, school managements needed to get their affairs in order to be able to attract better qualified school leaders and teachers to improve the standards of their schools. It was no coincidence that schools where management and teachers could not work together, morale and achievement, both inside and outside the classroom, were very low.

Research data on the *school cluster* initiatives in New Zealand (Yates, 2001), Cambodia (Praesertsri, 1996), Newark (Walker, 1992) and Thailand (Chapman et. al., 1986) found that they offered a very practical solution to helping these small rural schools with the problem of ineffective governance. The schools in the *cluster* were able to meet regularly and share their ideas on how they were managing their schools. This enabled the schools to adopt and adapt some of these ideas to address their individual needs and improvements were indeed noted in as much as within a year. In a three year period of

continued monitoring, significant improvements were made in the management of these schools and which subsequently saw to improvements in other related areas within the schools.

Another significant area of related improvement noted from the literature in the *cluster* initiative in these schools in the above paragraph, was in the willingness of qualified and experienced teachers to go out and serve in these rural areas. The attraction of contributing to the improving of five schools simultaneously offered these teachers a new challenge. In any case, serving a *cluster* of five schools of about nine hundred and fifty students was a far cry from being posted to a school of about one hundred and fifty students. With the expertise of these new innovative school leaders and the combined effective managements of the schools, higher qualified and very experienced teachers became attracted to serve in these schools. School performances increased as student confidences and parental support also improved.

There was initial skepticism and suspicion of the *school clusters* initiative to begin with (Yates, 2001). Die-hard school supporters, both parents and former scholars, lamented the possible loss of school identities as they merged together to share ideas. However, as the school managements began to work together and huge improvements began to show, these criticisms subsided. Whilst working together collaboratively to improve their individual schools, the school managements still managed to hold on to their individual school identities and continue to promote and market them with renewed confidence on who they are and what they stand for.

5.1.4 Staff quality

The issue of continued staff development in rural schools is another area critical to improved school performance. An effective professional development programme has been identified by educators as central to teacher effectiveness in quality performance and morale (Bennet, Wragg, Carré & Carter, 1993; Hargreaves & Hopkins, 1991; Joyce & Showers, 1980). The geographical isolation of most of these small rural schools makes it difficult for them to be continually present in the normal and traditional large

urban-centred in-service workshops. The expense involved is an inhibiting factor and as a result these teachers who desperately need these courses are unable to attend.

> …because teachers are expected to pay their way to the workshop and then get reimbursed, some still find that very difficult. Teachers in rural schools, especially island schools either have financial problems or difficulties getting to banks. When they are called to a workshop in Suva, they either do not have the money for their transport or they can't get to a bank to get money for their fares.

> (Principal School C, 2006)

A teacher expressed the same concerns of financial difficulties in attending to workshops conducted in the urban centres in Suva.

> I was called to two workshops this year but attended only one. I have two children in school and I have to look after a family also. My husband works at PAFCO as a labourer and does not earn much. In the first one I had to tell the principal that I cannot pay my way so he gave me some money and when I came back I paid him from the workshop allowances they gave us. In the second one I excused myself as being very busy so the principal sent someone else…really I could not afford to pay my way.

> (HOD School C, 2006)

The principals, head teachers, teachers and management all express the same sentiment, that of their teachers missing out on a lot of these in-service courses as well as extension study courses offered by the tertiary institutions such as University of the South Pacific. Most of these schools do not have access to the University's centres and for those that do, their schools do not have the support resources such as a proper library or computers to access internet resources.

> …because of problems of shipping and air transport, sometimes when we get our mail, the workshop notices have expired. But even when we get them on time, we could not send our teachers because of the cost and the number of teachers we have. Last term I received a notice for a workshop but I could not send anyone because one of my teachers was on maternity leave, one was sick and there were only three of them in the department.

> (Principal School A, 2006)

The transport schedule to these schools is also a determining factor. Heads of schools are reluctant to release their teachers to attend in-service workshops because the frequency of available transport often results in teachers having to be away for days to weeks in very remote areas to attend a one-day workshop. The amount of class time lost is a deterrent to these teachers because they will have to make up for lost time when they return.

> Sometimes when our teachers from here go to workshops in Suva, they have to take two extra days – one day to travel to the workshop and one day to come back after the workshop. Sometimes when the ferry does not travel every day, some teachers can be away for one whole week. Imagine the amount of class time we lose out on.

(Principal School B, 2006)

5.1.5 Discussion on staff quality

Gidey (2002) and Joyce and Showers (1980) noted the efficacy of the localized staff development approach incorporating classroom support over the more traditional "one-shot" workshop approach. In this model, teachers meet in their local classroom settings and in a collaborative and collegiate approach, identify problems and in a mutual and professional exchange of ideas, find solutions to them. The relative proximity of the schools to each other allows for frequent and regular meetings, enabling on-going staff development for sustained school improvement (Stoll in Fullan & Hargreaves, 1992). The teachers know each other and are able to form support groups to sustain these staff development activities that meet perceived local needs. Teachers are able to identify better with this model of staff development and as such are more willing to accept and initiate change where the need arises.

The staff exchanges that the schools in the study had undertaken had been found to be very effective in addressing their common problems. When the teachers meet and share in their various subject areas, they are able to share strategies on how to tackle difficult curriculum areas. The teachers agreed that they had found their meetings very useful.

> As a new teacher, I was able to learn from the senior teachers in our discussions. In my subject area, I learnt how to approach certain topics effectively and professionally, I learnt a trick or two on how to deal with problem students in my class.

> (Teacher School C, 2006)

The problem of staff quality in Cambodia was effectively addressed in the *school clusters* system as intensive and relevant staff in-service workshops were regularly carried out with assistance from the local authorities and UNICEF (Dykstra & Kucita, 1996). In Ethiopia, Gidey (2002) found that they were able to organize and conduct more workshops that directly addressed the individual needs of the schools in the *school clusters* arrangement. Chapman et al. (1986) also found similar benefits to localized small scale staff development benefits in the *school clusters* in Thailand. Teacher confidence and competence rose proportionately with the increasing number of staff development workshops and as a result, this served as an incentive for teachers to stay for longer periods in their schools (Spears & Oliver, 1996). Similarly, the results here are also consistent with those of other empirical studies (Dykstra & Kucita, 1996). Whatever the teachers were able to share in their schools get together, they were able to go back and continue them in their small school groups. Continued referrals and references to colleagues in the other schools were regular because of their close proximities to each.

5.1.6 Educational opportunities

The school leaders of the case study schools all agreed that the limited resources they have has a huge impact on the range and scope of educational opportunities they can offer their students. The career opportunities covered by the subject combinations they offer depend on the resources they have – the infrastructure available and the financial support at their disposal. One of the principals had been trying for years to offer technical education to their students but because they did not have the resources, they had to continue to wait for the MOE to attend to their request. The parents had joined the school in petitioning the ministry but to no avail as there had been no action for years.

In this school, we cannot offer technical education to our students because we cannot afford it. We do not have the classroom but even if we have a spare classroom, we do not have the equipment and at the moment there is no way we can ever get them because we can hardly maintain what we are currently offering. Our parents have continued to put pressure on us and together we have made combined representations to the ministry for the last ten years only to be told every year that there are no funds available. We know and they (ministry) know that for a rural community like ours this is a more relevant subject option but there is nothing we can do.

(Principal School B, 2006)

One of the schools in the study that did offer technical education found maintenance of the expensive equipment the major problem. Some of the technical equipment they used was so old they were jokingly and affectionately referred to as antique items of the school.

It is so frustrating here. We hardly have anymore equipment working in our workshop…and the ones that still work are so out of date that it is so embarrassing when we have visitors here and they see us still using them. The joke is that because this is the old capital, everything here is old but I tell you, there is nothing to joke about when we are dealing with children's future…

(HOD School C, 2006)

Another school had been trying to get more computers for the school so that their teachers could at least be able to use them in their work. The computer laboratory of the school existed only in the pages of the school plan.

We were donated two computers about five years ago and only one is now working. As you can see we are still using floppy disks but at least we are lucky we still have one working. I leave it for my secretary so that she can use it also to type out teachers work. That one has lasted because only one person uses it. The other one was put in the staff room and it didn't last. As for our computer lab for our students, I have almost given up on it.

(Principal School C, 2006)

The teachers of two of the schools had been trying to introduce other main stream sports such as rugby and netball but because of the financial problems of the schools,

90

development works are hampered as they could not afford the necessary equipment. The three schools in the study have histories and traditions well over a century and much older than other schools in Fiji. They have entrenched traditions from their colonial pasts and the game of hockey was one of them. With the modern economic attractions in the sports of rugby and netball, the schools have tried to change with the times.

> This place is famous for hockey and I am still proud of the tradition…(but)…you know times have changed and I cannot see any use for my children playing hockey anymore. I prefer them playing rugby and netball because today they can earn big money in those sports like (Waisale) Serevi and (Vilimaina) Davu.

> (HOD School B, 2006)

The frustrations expressed above cannot be expressed any clearer here than in the physical articulation and body language in the telling. Improvements and new developments in the economy of the nation necessitate schools to be able to keep up otherwise their students will be disadvantaged when they leave school. The job market has become more competitive and the cut-throat jostling and lobbying for opportunities favour the wise and better prepared. These schools therefore are very much disadvantaged in the preparation of their students for life out there in the real world not so much for lack of effort, but for lack of resources.

5.1.7 Discussion on educational opportunities

The limited range of educational opportunities small schools can offer is another serious problem that they contend with every year (Dykstra & Kucita, 1996; Hargreaves et al, 1995; Walker, 1992), and the problem is not only limited to a lack of facilities, equipment and finances but also to teachers. Due to the small sizes of these schools they have a certain quota of teachers based on a formula used by the ministry, with the main criterion being school roll – the number of students in each class or form and the number of classes or forms they have. Unless there is an increase in the school roll, there cannot be an increase in the number of teachers they have.

The *school clusters* arrangement allowed schools to work collaboratively to help each other with physical resources and teachers (Rees, 1996). Through teacher sharing, schools were able to offer subject options that they would not have been able to offer on their own and where these opportunities demanded new resources, they were provided access to these in the sister schools that had them. Teachers also had access to teaching resources that their schools did not have such as computers and audio-visual equipment and of greater benefits to the less affluent schools were that their students also had access to computers and better library resources. Schools were also able to expand their extra-curricular activities with access to new and better facilities such as sports grounds and gymnasiums, a variety of sports and music equipment as well as specialist teachers in these areas.

The collaborative initiatives outlined in the strategies of the *TEC*, as discussed in Chapter 4 allowed the schools to share resources and expand the educational opportunities they provided their students that they would not normally be able to afford on their own. The initiative also allowed the schools to collectively increase their combined efforts in expanding their education provision by not duplicating resources and competing with each other for the same resources but in acquiring those that will complement each other. From the classrooms to the sports fields, they had been able to help each other out as much as they could with the resources they had.

5.2 RQ 2:   What are the Measures taken by the School to address these Challenges?

Measures taken by these schools to address the challenges they face are limited to the resources available to them. As discussed above in 5.1.2, the economics of maintaining these schools is the major hurdle to the provision of equitable and quality education, relative to the urban schools. The economic livelihood of the people is insufficient to sustain their schools and they therefore rely a lot on government assistance.

5.2.1 Government financial grants

The financial assistance provided by government under its fee-free policy is given to schools to help them out in essential provisions and categorized below:

Category A: Schools with 10 to 49 children receive $3,500 per annum
Category B: Schools with 50 to 99 children receive $4,000 per annum
Category C: Schools with 100 to 149 children receive $4,500 per annum
Category D: Schools with 150 children and over receive $30 per child per annum

(Williams, 2000:197)

For secondary schools it is:

Pupils in Forms 1 and 2, $90 per pupil per year

Pupils in Forms 3 and 4, $153 per pupil per year

Pupils in Forms 5 and 6, $165 per pupil per year

(Bacchus, 2000:442)

The relative amounts are inadequate for the daily functions of the schools, let alone long term infrastructural development. Most schools in categories A to C are classified as rural while the majority of schools who benefit from this form of financial assistance are the bigger urban schools in Category D; one-third of all primary schools have rolls of less than 100 and more than half have rolls of less than 150 (Williams, 2000).

For the secondary schools, the high achieving urban schools have high concentration of students at Forms 5 and 6 and therefore, receive much bigger financial assistance from government. The rural schools have high concentrations at Forms 1 to 4 with very low numbers at the higher level because parents prefer to send their children to the urban schools with their better academic records.

The fee-free grant for primary schools is intended to cover the costs of books, laboratory and sports equipment amongst other things and for secondary schools (per capita grant) it is intended for the purchase of resources, administration expenses and other utilities.

According to the heads of these schools, the inadequacy of this financial assistance has forced them to charge extra fees to cover the shortfall. As a result, the principle of relieving parents of the burden of heavy costs associated with schooling has not happened as parents find that they are burdened with levies (Williams, 2000). The very assistance intended by government to help disadvantaged schools is benefiting the schools that already have good facilities and resources. Data show that these disadvantaged schools are found mostly in the rural areas.

Table 5.1   School Distribution

PRIMARY SCHOOLS							SECONDARY SCHOOLS							TOTAL	
Rural Category			Urban Category				Rural Category			Urban Category				P	S
1	2	3	1	2	3	4	1	2	3	1	2	3	4		
159	188	213	22	30	28	80	36	25	19	15	11	8	44	710	154

Note:

Rural category: 1: 10-20km from town boundary   Urban category: 1: city metropolitan

                        2: equal to or greater than 20 km   2: city suburban

                           from town boundary   3: peri-urban

                        3: very remote schools   4: town area

Source: Tavola, 2000:162

As shown above, about 79% of primary schools are in rural areas and, of these, 38% are in very remote areas. For secondary schools, 52% are in rural areas with about 24% in very remote areas. This translates to about 49% of all school enrolments that are in the rural areas. The problems that these schools face in the provision of education due to their relative sizes and location, is a disadvantage that they grapple with every year.

Building grants are also available to schools for infrastructural development upon request. The conditions for access of these grants once again favour urban schools as they have large enrolments. The need is more pressing due to the big rolls compared to the rural schools with small numbers. The criteria of producing professionally certified

building plans and obtaining three quotations favour urban schools and in the event that the rural schools get a grant, the extra cost of transporting the materials accounts for a sizeable chunk of the assistance. According to the Principal of one of the case study secondary schools, they have submitted their request for a two classroom block to expand their technical programme for the last five years. They have either been told that there were no funds or that their priority rating was not high enough for the year's building allocation. As a result they had been told to continue to submit their request and in time it will probably be moved up the list to a higher priority rating.

5.2.2 Affirmative Action Programmes (AAP)

The rationale for the *AAP* of the government was legislated in the Social Justice Act of 2001 and received widespread criticism for its focus on Fijian schools and students only. The government nevertheless went ahead and drew up 29 programmes, 13 of which were specifically for education and training (Williams, 2000).

The *Fijian Education Fund (FEF)* is one such programme and its initial focus was for infrastructural development and the provision of educational resources and equipment. The managing authority of the fund, The *Fijian Affairs Board* (FAB), shifted its focus to the provision of scholarships for Fijian students to tertiary institutions in the nineties. However, in its latest strategic programmes, the focus has gone back to upgrading infrastructure (60%) whilst continuing with the provision of scholarships (40%).

Another initiative of the government has been in the setting up of *COE* in government schools. This initiative however also received widespread criticism because it benefited only the government owned schools which were already far better equipped than the rural schools who needed such assistances more. In any case, there were complaints and frustrations vented by one of the schools involved in this programme because the funds budgeted for the development programmes were not forthcoming.

> We were told to draw up a five-year Strategic Development Plan…which we did…and in only the first year we were told we cannot get the funds budgeted

because there are not enough funds. What kind of affirmative action is this? In only the first year and we were told there was not enough funds…my goodness…what about the remaining four years? You know, we have lost faith in this programme.

(Principal School C, 2006)

The failure of this initiative to ripple out its benefits to the rural schools that most needed assistance has only served to fuel the frustrations of the school leaders and parents of these schools. The dependence of these schools on government assistance is so obvious in the lack of development in most of these schools over the years. Most of them have never had any infrastructural development since their establishment and continue to eke out an existence on whatever little they can acquire. Unfortunately, for these schools and their students, what they continue to work so hard for is way below the quality available to their brothers and sisters in urban schools. As a result of this inferior standard of education they continue to receive, they will continue to be at a disadvantage in one of the most important walks of life namely, financial security or economic stability. One parent teacher succinctly summed up the plight of these rural students:

I send my children to [an urban school] because I want them to have a good education and be able to be successful in life. I know they can't get that here and I feel sorry for these children but I have to think of my children first. People have asked me how can I send my children to another school and be teaching other children here. It is not that I have no faith in my colleagues in this school but because what I want for my children are not offered here…and the level that I want them to be at is not here. I send my children to Suva because I can afford it and I owe it to them. There is nothing I can do for these children but try to teach them the best I can with what we have available here.

(HOD School B, 2006)

5.3   RQ 3:   What is the Most Suitable *School Cluster* Model for the Fiji Context?

Due to the novelty of the concept of *school clusters* and the absence of formal practices here in Fiji, no one that was interviewed had any idea of the definition or its basic practice beyond the literal meaning of the word cluster. The teachers in the secondary

schools did not know that the collaborative measures they were involved in constituted the concept and practice of *school clusters* by definition and application, even though the arrangement and practice differed from other models. It was only after they had read the introduction in the questionnaire and other further explanations during the informal "talanoa" sessions did they properly understand what the concept and practice involved and that they themselves have been involved in it somehow in the past.

There are schools in Fiji practicing *school clustering* in a limited sense without actually realizing or acknowledging it. The three sample schools involved in the *TEC* had a *cluster* arrangement though the term was never alluded to. The term used by the school heads in the planning and documentation of the initiative was *twinning*, which is similar in definition and practice to *clustering*. In the MOU that set up School C as a *COE*, specific mention was made of *twinning* it with the other two schools. The conceptual and operational functions of the *TEC* have been detailed in its *Strategic Development Plan* and discussed in detail in Chapter 4. Within the scope of this study, Models 1, 3 and 4 were the points of discussions with the related stakeholders – heads of schools, teachers and parents.

The questionnaire administered to gauge the levels of support for the four *school clusters* models proposed in this study is found in Appendix D and discussed in this section.

5.3.1   Model 1: Rural-Rural Cluster (RRC)

This arrangement received the most support of 43% (Appendix D – Questionnaire Responses) from the respondents to the questionnaire. Teachers felt that they prefer this to the *TEC* model because someone needed to take charge of the overall responsibilities of the cluster operations. They felt that if matters were left to the heads of the schools to operate in consensus and compromise, nothing much would be achieved.

> One of the main problems with the way our school operates is lack of good leadership. Our (head) is always compromising and in a lot of things, teachers

have their way. In only our school some teachers are able to do as they please…what about if five schools combine together and the heads are like that…more teachers will be doing as they please and there will be more problems…the schools will suffer more…especially the children. When the schools join together, they need to identify a good strong leader who can control things…I don't mean rough and forceful, but who can lead and get things done. That way the schools with weak leaders will benefit.

(Teacher School C, 2006)

Good effective leadership had been highlighted as crucial to the successful operations of this *cluster* arrangement (Gidey, 2002; Monk & Haller, 1986)). Managing all the combined resources of the schools in the *cluster* together with the external assistance from government and donor organizations require good visionary leadership. Good strategic planning, management and distribution of the resources to the schools in the *cluster* to improve the quality of education are a very important task for the *cluster centre* as suggested in the literature (Gidey, 2002; Yates, 2001; Praesertsri, 1996; Walker, 1992). The schools in the *cluster* must have confidence in the leadership and the equitable distribution of resources is a key area in management. Tangible benefits and improvements need to be seen and made in all the schools and in most cases, of equal proportions.

According to the literature, reservations expressed by teachers and stakeholders centre mostly on infrastructure. In some *cluster* arrangements, physical accessibility between the schools can be a problem and so special consideration must be made from the outset and suitable arrangements put into place. From the initial selections of schools into the *cluster* to the allocation of resources for implementation and function, the issue of transport needs to be addressed (Gidey, 2002; Chapman et al., 1996; Dykstra & Kucita, 1996). The review of the *school clusters* models above found that some of the difficulties faced in the operations of the schools related to issues of transport; when they were resolved, improvements were noted.

Another area of concern raised in the literature was of school identity, with teachers fearing the loss of their individual identities in an association that can be dominated by

the central school or that inferior schools can be swamped by their more illustrious sister schools (Yates, 2001). The loss of identity expressed is in essence a fear of the erosion of the cultures and traditions that the individual schools had built up over the years, and is the foundation of the "old-boy/old-girl" mentality. Some teachers who were former scholars of the schools in the survey were quite reticent and there were two teachers who were in outright opposition to such an arrangement even though they agreed with the educational benefits to the students. Yates (2001) and Nachtigal (1996) found that this was to be expected in the initial stages but when parents began to see improvements made to their schools, they embraced the practice and fully rendered their support.

5.3.2 Model 4: The Education Centre (TEC)

This model, discussed in greater detail in Chapter 4, recorded the second highest preference of 40% (Appendix D – Questionnaire Responses). Of greater significance is the fact that the three secondary school principals preferred this arrangement. One of the reasons given focused on the issue of leadership.

> This arrangement where the principals work together on equal footing is best because one school will not feel like it is above or below the others…not only in the case of the principal who is going to be the head of the cluster but for the teachers too, and even the students and parents…everybody. If we want the schools to work together then we must not have one ahead or above the others but all the same.

> (Principal School A, 2006)

Another reason given in support of this model related to the greater opportunities available to the students in terms of subjects offered by the schools.

> By having the students choose the school to attend based on the subjects they want to do is good because the school can now take more students because their resources are focused on providing that need for the students. We now do not have to worry about not being able to offer some subjects to our students because those we cannot offer, the other schools will offer. This way we can provide a wider career path for all the students of our community.

> (Principal School B, 2006)

The distribution of disciplines to the schools will enable the choices mentioned by the principal above. Apart from the wide choice of subjects available to the students, it will remove the element of duplication of resources and reduce wastage (Velayutham, 1986). Individual school resources can be focused on the disciplines offered to a higher quality rather than spreading resources thin in trying to provide "everything" for the students as one teacher articulated in the well known cliché:

> …jack of all trades and master of none. This way we can focus all our resources and efforts on being the best in what we offer and not like what we are doing now – a little bit here and a little bit there and a lot everywhere but with no real results. That's why a lot of our students fall out and go back to the villages because they cannot find jobs.
>
> (HOD School B, 2006)

Our traditional school system encourages schools to function as separate entities and in most cases compete for the same resources, often to the detriment of each other (Velayutham, 1986). In the urban centres the competition is cut-throat and the bigger and more successful schools are being managed commercially with a view to being able to not only provide the services required of them but to be able to survive financially. Though the term 'profit margins' may not be used openly by management, budgetary surpluses and investments are terms being used a lot today in the corridors of school managements.

This also has become the bane of many a small rural school. With very few economic alternatives and limited finances, the schools that cannot compete are doomed to struggle throughout their existence. [School B] has always been viewed as "inferior" to the other two schools; academically its results have always been below that of the other two schools. Students and their parents always make the other two schools their first choices in their applications and only when they fail to enter these two schools, then they approach it for a place.

> You know, we have always been getting the 'rejects' from the other two schools…they make their selections, picking the cream, the best, then the rest come to ask us for a place. We have no choice but to accept them otherwise there will be no students here. It may sound very rude and insulting but that is the truth.

> (Principal School B, 2006)

Schools such as [School B] are trapped in this vicious cycle of "inferiority", with no apparent solution to their predicament as discussed earlier. Having them able to compete on an equal footing with the other schools will certainly help boost confidence and morale. In the *TEC* arrangement, they will get the same educational resources and support that the other two schools will get and get equal access to the students depending on the disciplines that they offer. This improved status will also attract senior well qualified teachers to further boost their endeavours to provide quality education for their students.

The summary comments made by the three principals of the secondary schools aptly sum up their preferences for this model.

> We have talked about this and we quite agree that this is the way for us to go in the future. This is the better model for us…especially secondary schools because we can share the subjects we offer our students. By offering fewer options we can get good quality equipment, textbooks and even teachers for the same resources we are now spending…with government recognition of this (TEC) and extra funding we can do more still. Having to buy for all subjects means we cannot get what we really want…but like this (TEC), we can.

> (Principal School B, 2006)

> This arrangement (TEC) is good because the parents and the students can choose the school they want to go to without having to worry about qualification marks because the schools can take them all in. You know, I always feel bad having to turn students away but now they will no longer have to go through the nasty experience any more.

> (Principal School A, 2006)

Staffing is one problem we have always had here in all our schools…but this I think will solve that problem. We could not provide quarters for all our teachers and in most cases we have to ask for single newly qualified teachers so we can put three or four of them in one house. Good senior experienced teachers could not come because we do not have the quarters. With this (TEC) I know we can now have enough quarters.

(Principal School C, 2006)

Whilst the principals of the three secondary schools in the study may be unanimous in their preferences for this model, it must be remembered that they are more familiar with this model than the rest. They are more comfortable with the tried and proven and be reluctant to try out something new and unfamiliar. At this higher level, the principals also felt that the cooperative model of leadership practiced in this cluster model, is characteristic of the cooperative and collaborative principles it purports to promote.

5.3.3   Model 3: Rural-Urban Cluster (RUC)

This model received the least support of 17% (Appendix D – Questionnaire Responses) from the respondents. The most common reason given had to do with the geographical separation between the schools in the cluster and their head school. They felt that the supervising head needed to be in close and continual contact with the heads of the schools in the *cluster*; a teacher likened it to "…a ship without a captain…" Important issues and decisions needed to be made often and so the overall head of the *cluster* needs to be available at all times. They felt that important matters cannot be conducted by proxy over the telephone or through other means of correspondences.

Another reason offered was cultural in that the head school needed to be able to identify with its sister schools. It needed to understand the context and feelings of the schools and only someone from within could understand it better, They also felt that someone coming from outside will not be able to fully understand their traditions and at worse, may never be able to identify with them or feel they belong.

Those who supported this *cluster* arrangement felt that rural schools could benefit a lot from the experiences of the urban school. They contend that a successful high achieving urban school, be it Fijian or Indo-Fijian, can definitely offer a lot of benefits to its sister rural schools. Other reasons also included multi-cultural and multi-racial relationships and practices that can be developed between the prevalently rural Fijian schools and the Indo-Fijian urban schools.

> I like this idea (RUC) because I know that we can benefit from the way they do things. If they are successful then it means they are doing things correctly. They can also provide us with some resources to be used in the classrooms by our teachers and students…coming from the towns and cities, they have a better idea of what is going on out there and can share them with us…I do not really care whether it is a Fijian or Indian school because our goals are the same…we want the best education for our students and if what they can offer is going to be good for the teachers and students, then I definitely am all for it.
>
> (HOD School C, 2006)

5.3.4   Discussion on cluster models

One of the things that came out unanimously from the heads of schools, teachers, managements and parents that were interviewed was that this practice, *school clusters,* is something that is worth exploring. Even though it may be a new concept to the education system, the cultural setup and traditions basically support this practice and the local rural people can easily identify with it. As Nachtigal (1996) put it, the practice of sharing is as old as our traditions and can be found in almost all walks of our daily lives in Fiji too. They also agreed that with the problems Fiji rural schools are facing today, any initiative and innovation intended to improve these schools' functions and operations need to be taken seriously.

It was interesting to note that the initial skepticism towards the concept disappeared when the teachers and parents better understood what the concept and practice entailed. Years of frustrations and lack of progress by stake holding managements, including government, to improve their lot had made a lot of these schools quite cynical in

discussions relating to new ideas or efforts to improve their schools (Fullan & Hargreaves, 1992).

> We have had so many promises by school officials and government politicians that we do not trust anyone who makes another promise. I was in the school committee once and we were told to prepare a Strategic Development Plan for the school. Even the first project in the plan that was supposed to cost $55,000, the ministry told us they only have $15,000…how do they expect us to implement the plan this way?

(Parent School C, 2006)

5.4   Overview of the Study Findings

The economic viability of small schools is an issue of great concern to school heads, teachers and parents. With the small rolls they have, government assistance is insufficient to meet the daily costs of maintaining their schools let alone to even consider further development. The matter is further exacerbated by the low economic activities of the communities thus hampering internal efforts at fundraising to help subsidize their budgets. For the schools in the study in close proximity to each other, their slices of this small economic pie are further reduced. The same proverbial cows that they continue to milk continue to grow leaner and thinner.

The issue of governance is another major concern to these small rural schools. Not only do they have a small number of resource personnel to select from to manage their schools, the high turn over of these management officers does not help in the consistency of managing their schools. The poor status of these schools also limits the caliber of school leaders they can attract. Senior experienced and highly qualified school leaders in the urban areas cannot be posted to these rural schools because of the disparities in school levels. The same difficulties arise for these schools in the study in trying to acquire senior and highly qualified teachers. An added difficulty is that these highly qualified teachers are not motivated enough to go all the way to teach in these remote and small rural schools because the incentives are not attractive enough.

The range of educational opportunities available to the children in these small rural schools is constrained by the resources they have. The limited financial resources available, the poor school leadership and inexperienced teaching staff all conspire towards limited and poor opportunities for these children. The financial assistance from government is very much limited by out-dated guidelines that have not been revised to take into consideration the rising costs of living and that of providing a quality education in these modern times.

The preference of the school heads for the *TEC* model of *school clusters* is understandable given their experiences with it. They have discussed this extensively and can see the individual and collective benefits this level of cooperation can bring to their schools, especially towards improvement and increased opportunities for their children. The preference of the teachers for the RRC as opposed to the RUC characterizes their suspicion of things foreign and outside of their comfort zone. They are more comfortable being managed from within even though they know that professionally they are not progressing.

5.5   Summary

The attraction in this innovation, according to those that were interviewed, lay in the fact that the schools are required to work together to help each other out. Having understood the benefits that could accrue to each school in a *cluster* arrangement, they realized that even without the envisaged government assistance, they would be better off with the help of their sister schools.

A further point that came out clearly from the discussions with stakeholders was that Model 1 (RRC) and Model 2 (UUC) should work well with our small primary schools. The lukewarm support for Model 3 (RUC) was understandable given the geographical and cultural barriers it posed. Nevertheless, those who supported it had a very valid point that needed serious attention. They also felt that Model 4 (TEC) would suit small secondary schools well, such as is the case with the three secondary schools in the study.

Whatever the arguments for or against, everyone felt that the innovation is worth serious attention.

The final chapter, Chapter 6 will consider the implications of the findings and make recommendations that will answer the questions raised and the purpose of the study. It will also consider the limitations to this study and make suggestions for further research.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.0   Introduction

The previous chapter analyzed and discussed the data in relation to the model of school cooperation as practiced by the three secondary schools in the study. In the absence of local literature, references were made to international literature and the practice of school clusters and existing models not only in developed countries but more particularly in developing countries similar to Fiji.

This chapter will re-look briefly at the challenges facing our rural schools and how *school clusters* can help address these problems. It will also recommend a conceptual model for *school clusters* that would best suit the Fiji context on the basis of the findings of the study.

6.1   The Need for an Alternative Solution to Managing Small Rural Schools

The problems that our small rural schools are facing today were the same ones they have been facing since their establishment. Despite the good intentions and efforts of successive governments, the resources they provide these schools have never been and are never enough to make a significant difference in improving the level of education they provide their children. With the rising costs of running a school and the same level of assistance provided to these schools, the future certainly does not look bright at all for these schools and their children. For them, it will be a matter of the same routines day in and day out, making do with what they have. The greatest loss of course will be to our nation as we deny our future generations the opportunities to fully realize their potentials.

Research has been carried out on the plight of rural schools and specifically on Fijian schools and very noble recommendations made for their improvement. In all fairness to the authorities, some of these issues have been addressed but improvements have been so minute and progress so slow as to be insignificant in the grand scale and scheme of the nation's education picture. The relative rates of progress between the urban schools and the rural schools continue to widen rather than bridge the chasm between the states of the schools. It is in this context of widening standards of education between urban and rural schools that give rise to the need for a new initiative to address this. This problem of managing small rural schools needs to be looked at before they are forced to close down. The concept of *school clusters* is such an initiative that is worth trying out as suggested by the three secondary schools in the case study.

6.2   The Challenges Facing Small Rural Schools

This section briefly re-looks at the issues facing small rural schools, such as the economic viability of managing them, management and leadership, staff quality and the scope of educational opportunities these schools can provide their children.

6.2.1 The economics of running small rural schools

The lack of economic activity in these areas greatly affect the economic livelihood of the people and therefore do not provide the necessary financial support needed by these schools to be able to provide the quality education needed for these students in order to be competitive with their urban peers. Due to the small rolls of these schools, financial assistance from government is very small as it is based on the number of students in the schools. The proliferation of schools and their proximity to each other in the rural areas very much limit the financial pool they can access from their communities. The competition between these schools for the limited financial resource available to them is cutthroat and very much to their detriment.

In a *school cluster,* these schools can get together and work together to help each other out rather than fighting to out do each other at every step of the way. By sharing their resources they can complement each other to improve the range and quality of education they can provide their children. If such an arrangement was to be formalized and recognized by government, then assistance to these schools would be based on the *cluster* and not on the individual schools. Financial assistance would then be calculated on the total roll of the *cluster* and infrastructural development would be on a priority rating compatible with other bigger schools. The combined financial pool of the community would be directed at the *cluster* and not be ineffectively decimated to the individual schools. Economically, these schools will be much better off together than being on their own.

6.2.2 The issue of governance in small rural schools

It is very difficult for these small rural schools to attract senior and experienced leaders because of their relatively poor facilities. Not only would such school leaders not be personally interested, but their level in the education hierarchy prevents them from ever serving in small rural schools. The only way these schools can attract these leaders is to form *school clusters.* Not only would they become financially more secure and be more attractive to these leaders but the increased roll of the combined schools would qualify them to the services of such leaders. Furthermore, the combined expertise of the school leaders in the *cluster* may be sufficient for them to operate without the need of an overall leader such as in the *TEC* arrangement, as discussed in Chapter 4.

Small schools do not have the luxury of choice within its stake holding community for qualified management. They would basically have to make do with the same management for years or have a high turnover rate due to the lack of knowledgeable people or personal reluctance to be engaged in such a demanding role. In a *school cluster* arrangement, the pool of qualified management personnel would increase and be available to help run these schools more effectively.

6.2.3 The need for qualified teachers in small rural schools

Having qualified teachers is just as important to the success of a school as having a good leader. For these rural schools, it is just as difficult to attract senior qualified teachers as good school leaders for the same reasons. In *school clusters,* the same attractions for the school leaders would work for teachers.

Maintaining an effective staff that is qualified, motivated and confident is also very important. Research of *school clusters* in Ethiopia (Gidey, 2002), Cambodia (Dykstra & Kucita, 1996) and Thailand (Chapman et. al., 1986) have shown that regular in-service and upgrading courses are very much needed for teachers to keep abreast of modern developments in the field. It has also been found that one-off big urban-centred in-service courses are not as effective as locally based courses in small groups. The *school cluster* provides a very effective forum for the continued development of teachers in a local setting that they are familiar with and that addresses their specific needs.

6.2.4 The educational opportunities available in small rural schools

The smaller the school, the more limited its resources and the less the options it can offer its students. For these small rural schools their students are disadvantaged because of the range of subjects they have available to them. The problem is more acute and noticeable in secondary schools for students preparing to move on to tertiary institutions or out to the job market. There are schools that do not offer technical and computer education because they do not have the resources for these more practical and expensive options. There are also some schools that can only offer limited options in important areas such as science and commerce. Just as importantly, there are schools that can only offer a very limited or inferior level of co-curricular activities in the arts, crafts, music and sports. One of the case study schools (School B) fall into the above category because the poor state of its finances meant it could not provide those opportunities for their children and for those that they do offer, the level and quality of those subjects are very much inferior to that in urban and better resourced schools.

In a *school cluster* arrangement*,* these schools can complement each other to offer all the available options to their students as in the *TEC* arrangement. This will prevent schools from duplicating and avoid the detrimental competition that most of them are engaged in with each other. Resources can then be freed up to be channeled to other areas. This complementary arrangement would work very well with secondary schools because of the wide range of options available at this level and the more expensive materials and equipment needed.

6.3   A Conceptual Model for the Fiji Context

Given the absence of formal local practices on this concept of *school clusters*, the conclusion for this study had to be based on international literature and the responses of the participants in this study. Two models are recommended here – one for secondary schools in line with the main focus of this study and one for primary schools. A third model that could work for both and is worth considering will also be proposed.

6.3.1 Secondary schools: *The Education Centre* (TEC)

This model would best suit our rural secondary schools because of the need for these schools to be able to complement each other to provide as wide and as full a range of educational opportunities for their students as possible. The pool of students that most of these schools compete for is small and rather than be campaigning for students on the basis of their marks, they can promote their schools on the basis of the career options they have available for these students in their individual schools. This will effectively remove the current competition that is promoting the fortunate schools while softly and slowly killing off the competition.

6.3.2 Primary schools: Rural-Rural Cluster (RRC)/Urban-Urban Cluster (UUC)

The RRC Model would best suit our rural primary schools because there are a lot of these schools in close proximity to each other. Most of these have cultural ties and a heritage that could form the basis for educational collaboration. Their communal

lifestyle is the very essence needed for such an initiative. There is enough common ground and goodwill in our cultural bonding and communal lifestyle to make this work.

The UUC Model could be used for low performing schools in the urban areas that are in close proximity to each other. The demand for such a strategy in our urban schools may not be as urgent as in the rural areas but the possibility and potential nevertheless offers us more alternatives to help improve our schools.

6.3.3 Primary and Secondary schools: The Rural-Urban Cluster (RUC)

In some *school clusters,* there may not be a school that is capable of taking on the central and leading role. In such a situation, getting a recognized and proven leading school will be better for the *school cluster* than to have it meandering along ineffectively due to the absence of a good leader. If such a scenario exists in a particular rural area, then an urban school could be approached for the role. Its physical separation should not be a deterrent for the school could simply act in a foster relationship, periodically visiting the *cluster* to share, review and guide.

The potential for multicultural co-existence and national reconciliation could be exploited in this arrangement by having non-indigenous urban schools providing the foster leading role for these rural indigenous schools. There are a lot of successful urban Indo-Fijian schools that could form *cluster* relationships with small poor performing rural schools. This relationship could take the form of sharing ideas through correspondence with the occasional visit. This foster relationship or interaction between the schools could extend from educational matters to cultural sharing. Such cooperation could foster cultural understanding and help our children to learn to appreciate each other and their individual rights to existence in this country (Subramani, 2000).

It could also provide a rural-urban pathway for these rural students and build bridges for these rural communities and their urban counterparts. Students in these rural schools could have a definite pathway to higher education in the urban schools. Interactive activities such as sports and cultural exchanges like arts and dances could extend from

within the school to the community. The potential for developing and fostering extra-cultural relationships exist in such a *school clustering* arrangement between schools in the rural and urban areas.

6.4   Limitations of the Study

From the outset, the absence of local literature and models of *school clusters* in Fiji had made it very difficult to have a reference to work from. As a result the basis for this study depended on international literature from which the findings were referenced and verified and then applied to the rural context. Therefore, the limited experiences of this researcher in the concept of *school clusters* meant that there was a learning process as the study progressed. The over-reliance and dependency on international literature and practices made it difficult to appropriately reference and found a local model based on local culture and politics.

The absence of any formal practices of the concept of *school clusters* in Fiji limited the choice of sample schools. There was in fact no choice in the selection of sample schools but to settle for the three secondary schools that were involved in a similar practice of *school clusters* and were known to this researcher. Whatever working documents the three schools had were basically the only formal local literature available, if one could call planning discussion papers and a *Strategic Development Plan* topic literature. Most of the international literature on the subject did not cover secondary schools and so for the practices with secondary schools, most of the information had to be drawn from the three secondary schools in the sample (TEC). Most of the international literature covered *school clusters* involving primary schools while locally there were no known cases to this researcher involving primary schools to draw reference from.

The lack of information and practices locally therefore brings into question the credibility of generalizing the findings to the Fiji context not to mention their adoptability and adaptability to other parts of the country. The Thailand Model was considered because of the similarities between the education setup of the two countries in as far as the *clustering* concept is involved. Economically and culturally the

conditions may not be compatible in transplanting such a practice between two very different contexts.

The non-representative nature of the sample again questions the credibility of the findings that such a practice could work in other parts of Fiji. The three schools in the study are island schools located far from the main urban centres. Whilst the schools are not officially classified as rural, their location and accessibility to resources and resource centres are the same for most other rural schools. The applicability of the findings therefore for the urban schools and the fully and formally classified rural and remote schools could also be called into question. The problems faced by the schools brought about by their isolation and distance from the main resource centres were exactly what forced the three schools to go into a *clustering* initiative.

A final problem that limits the credibility or applicability of the findings could be one of tradition and culture. These three schools are predominantly Fijian in composition and as such in tradition and culture. The principles and practices inherent in *school clusters* are very compatible with indigenous Fijian traditions and culture. Their communal way of life enables them to cooperate, collaborate and share together in the common goals that they have for the improvement of their schools. There are other rural and urban schools of different ethnic, religious and other interests that may not readily embrace such a concept as these in *school clusters*. These schools may find it difficult to adapt to such revolutionary innovations and may prefer the proven and more comfortable systems that they have.

6.5   Recommendations

In agreeing that the concept and practice of *school clusters* can certainly help our rural schools, there were a lot of reservations expressed in regards to the level of support it will get from the Ministry of Education and government. A lot of these schools have failed and partly fulfilled promises and projects from education officials and politicians that still rankle with them. Their skepticism is therefore understandable given the magnitude of this new initiative. Issues that were raised from all the discussions in this

study and on the basis of the data are therefore summarized below and can be incorporated into the recommendations for further study in this innovation of *school clusters*.

- That *The Education Centre* initiative is approved right from national level so that formal funding is assured.

- That *The Education Centre* initiative is also approved at the national Fijian administration levels to ensure support and cooperation at the *vanua* level.

- That *The Education Centre* concept and practice be formally supported by the Ministry of Education to serve as a pilot to assist in implementation in other parts of Fiji.

- That the formation of *school clusters* be a consultative process between the Ministry of Education and all the stakeholders of the schools to be involved; it must not be an arbitrary decision of central authority.

- The Ministry of Education needs to review their school classifications to take into account the *school clusters* and allocate resources accordingly; they need to consider the overall needs of the *cluster*.

- The composition of *school clusters* in secondary schools to be based on the subject or career disciplines available as options for the students. The composition of *school clusters* in the primary schools to be based on amalgamating schools to ensure available financial resources for effective school development and geographical accessibility.

6.6   Suggestions for Further Research

Based on the recommendations in the previous section, a pilot project is essential to the further exploration of whether this concept of *school clusters* will work in our local context. A suggestion would be a secondary school pilot along the lines of the *TEC* concept and practice and a primary school pilot along the *RRC* setup. From these two, there will be enough local data available which can help further research into this concept and implementation to suit the local context.

Concurrent to the setting up of the pilot projects, is the need for a national study on school cooperation and collaboration for educational improvement along the concept of *school clusters*. Data from this could help in determining the readiness of the people for such initiatives and perhaps more importantly, determine which areas and schools are ready to adopt the initiative. When the time does come for the setting up of *school clusters* in other areas, data from the pilot projects could help these new schools avoid the pitfalls and perhaps more importantly, have at their disposal a working model.

6.7   Conclusion

Nachtigal (1992, 1990) found that data from the review of *school clusters* show increased levels of social and academic confidence not only in students alone, but in teachers, school heads and parents. Increases in students' academic and social confidence levels had seen continued yearly increases in school performance and students' self-esteem. They no longer feel inferior to their more illustrious peers in the urban schools and were thus standing up to them not only academically but outside the classroom as well. Access to better facilities and to the necessary professionals had given them the belief that on a level playing field, they can compete with anyone. In sports, their combined numbers put them at the same level as the bigger schools and they were competing. Such confidence boosters are exactly what the local rural schools need today. Imagine these opportunities that are not available to these children in the rural schools and the talents that the nation is missing out on. There is a need to act upon this to continue to harness and develop the talent that is out there in the rural areas.

Yates (2002) also found that increased confidence levels amongst teachers and school heads had contributed to students improved performances. Parents had openly confessed that they found confidence in numbers and would not have embraced the initiative otherwise. They found confidence in this communal partnership and the frank exchanges with other committed parents had helped dispel any doubts they initially had and made them commit fully to the initiative.

In the same vein, the three schools in this study had found new levels of improved teacher and student performances compared to what they were before they worked together. Young and new teachers were able to learn from their more senior and experienced colleagues from other schools and they gained not only professionally but also socially. Improved relations amongst teachers also led to improved relations amongst students. Where past rivalries often resulted in violence, students were able to continue their rivalry but were channeling them to more healthy and productive means in academic and sporting pursuits. These new levels of friendly rivalry had also spread to parents and other stakeholders of the schools. Community relationships had also seen unprecedented levels of cooperation not only in education but in a flow-on effect to other areas of their lives.

Subramani (2000) found that multiculturalism in local schools can help in national reconciliation. It can foster tolerance and encourage goodwill amongst the young people as they engage in academic and social conversations on a daily basis. The inculcation of these values into the young people at these early years will go a long way towards promoting a healthy co-existence later on in life. Granted that there is multiculturalism in the schools today, meaningful integration is at a very small scale compared to the national school population. *School clusters* is one way of bringing schools together to share and engage in academic and social multiculturalism.

In secondary schools, the *TEC* model can definitely help in nation building as mentioned earlier. Multi-religious cooperation is experienced in this particular set-up with the

school managements being Government, Methodist and Catholic Churches. Consider cooperation and collaboration between Methodist, Catholic, Muslim and Hindu schools for the purpose of improved provision of education with everyone being involved in – children and adults. The future will certainly be brighter. Not only can the concept and practice of *school clusters* improve the education of our children, it can also help in national reconciliation and nation building.

BIBLIOGRAPHY

Baba, T. (1979). A challenge to the nation: The Fijian education problem. *Directions,* 2, 15 – 19.

Bacchus, K. (2000). Financing of education in Fiji. *Learning together: Directions for education in the Fiji Islands*. Fiji Islands Education Commission/Panel. Suva, Fiji: Government Printer.

Bacchus, K. (2000). The administration and management of education in Fiji. *Learning together: Directions for education in the Fiji Islands*. Fiji Islands Education Commission/Panel. Suva, Fiji: Government Printer.

Barker, R. & Gump, P. (1964). *Big school, small school*. Stanford, CA: Stanford University Press.

Bennet, S.N., Wragg, E.C., Carré, C.G. & Carter, D.S.G. (1993). A longitudinal study of primary teachers' perceived competence in and concerns about national curriculum implementation. *Research Papers in Education,* 7(1), 53 – 58

Berliner, B. (1990). *Alternatives to school district consolidation.* San Francisco, CA:Westend.

Bhindi, N. (1991). Issues in education administration in the South Pacific. *A Study Guide*. Suva: University of the South Pacific.

Blum, R.E. (1990). *Effective schooling practices: A research synthesis*. Portland, Oregon: Northwest Regional Laboratory.

Burnett, G. & Lingam, G. I. (2007). Reflective teachers and teacher educators in the Pacific region: Conversations with us not about us. *Review of Education.* 53, 303 – 321.

Chapman, J. D., Froumin, I. D. & Aspin, D. N. (1986). Inter-institutional coordination and networking at the micro-level. (J. Chapman, Ed.). *Micro-level Educational Planning and Management.* Bangkok: UNESCO.

Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.

Dakuidreketi, M. (1995). *Factors contributing to academic underachievement of first year native Fijian students in science courses at USP*. Suva: USP.

De Grauwe, A. & Varghese, N.V. (1998). Improving school efficiency: Issues and priorities". *Improving school efficiency: The Asian experience*; ANTRIEP Report, Colombo, Sri Lanka: 15-17 Dec.

Dykstra, A.H. & Kucita, P. (1998). *School-based management through cluster schools: A case study from Cambodia.* Cambodia: UNICEF.

Eisner, E. W. (1998). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice.* Upper Saddle Drive, NJ: Merrill/Prentice Hall.

Farrell, J.P. (1989). International lessons for school effectiveness: The view from the developing world. *Educational policy for effective schools*. Toronto: OISE Press.

Fiji Islands Education Commission. (1969). *Education for modern Fiji: Report of the 1969 Education Commission*. Suva, Fiji: Government Printer.

Fox, W. (1981). Reviewing economies of size in education. *Journal of Education Finance.* 6, 273 – 296.

Fullan, M. & Hargreaves, A. (1992). *Teacher development and education change.* London: Falmer Press.

Galton, M., Fogelman, K., Hargreaves, L. & Cavendish, S. (1991a). *The rural schools Curriculum Enhancement National Evaluation (SCENE) Project: Summary and recommendations*. London: DES.

Gidey, M. (2002). *Preparing more and better teachers: A new vision of teacher development in Ethiopia*: Paper presented at the 46th Annual Meeting of the Comparative and International Education Society; Orlando, Florida: March 6-9.

Guba, E. & Lincoln, Y. S. (1988). Do inquiry paradigms imply inquiry methodologies? In D. W. Fetterman (Ed.) *Qualitative approach to evaluation in education.* (pp89 – 115). New York: Praeger.

Hargreaves, A. & Hopkins, D. (1991). *The empowered school: The management and practice of development planning*. London: Cassell Education Limited.

Hargreaves, L., Galton, M. & Comber, C. (1995). *The implementation of National Curriculum in clusters of English rural primary schools*: Paper presented at Annual Convention of National Rural Education Association, Salt Lake City, Utah: Oct.

Joyce, B. & Showers, B. (1980). Improving in-service training: The message of research. *Educational Leadership.* 37(5), 379 – 385.

Kaewadaeng, R. (1985). The school cluster system (Thailand). In *Unesco: Grassroots networking for Primary education, Case Studies*: Thailand, Sri Lanka, Philippines, Japan. Bangkok: UNESCO.

Lauer, J. M. & Asher, J. W. (1988). *Composition Research: Empirical designs*. New York: Oxford University Press.

Leedy, P.D. & Ormrod, J.E. (2005, 8th edition). *Practical reasearch: Planning and design*. Pearson Education Inc, Upper Saddle River, NJ: Pearson Prentice Hall.

Levine, D.U. (1991). Creating effective schools: Findings and implications from research and practice. *Phi Delta Kappa,* 72(5), 389 – 393.

Lockheed, M.E. & Verspoor, A.M. (1991). *Improving primary education in developing countries.* Oxford: Oxford University Press.

May, C.R. (1990). *Allocating resources in rural and small schools.* Washington, DC: The Regional Laboratory for Educational Improvement of the Northeast and Islands.

Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Applied Social Research Methods Series, Volume 41. Thousand Oaks, CA: Sage.

McLaughlin, M. (1982). What worked and why". In Nachtigal (Ed) *Rural education: In search of a better way*. Boulder, CO: Western Press.

Merriam, S. B. (1998). *Qualitative research and case study applications in education.* San Fracisco, CA: Jossey Bass.

Ministry of Education. (2003). *Fiji Junior Certificate Examination and Assessment Regulation* (Draft). Suva, Fiji: Government Printer.

Ministry of Education. (2006). *Policy on Examinations and Assessment*. Suva, Fiji: Government Printer.

Monk, D. & Haller, E. (1986). *Organizational alternatives for small rural schools*. Ithaca, NY: Cornell University.

Nachtigal, P. (1990). *Clustering: Working together for better schools*. International Analyses/Opinion Paper; US Dept of Education: Rural Institute, Mid-Continent Regional Educational Laboratory.

Nachtigal, P. (1992). Re-mapping the terrain: School size, cost and quality. International Analyses/Opinion Paper; In *Source Book on School and District Size, Cost and Quality*, US Dept of Education: Rural Institute, Mid-Continent Regional Educational Laboratory.

Ornstein, A.C. (1993). School consolidation vs. decentralization: Trends, issues and questions. *The Urban Review.* 25(2), 167 – 174.

Peshkin, A. (1993). The goodness of qualitative research. *Educational Researcher*, 22(2), 23-29.

Praesertsri, S. (1996). *Rebirth of the learning Tradition: A case study of the achievements of Education For All in Cambodia*; Education For All Forum Secretariat, UNESCO, Paris, France: March.

Puamau, P. (1999). *Affirmative action and racial inequalities in education: The case of Fiji*. (Doctoral dissertation, The University of Queensland, 1999). St. Lucia, Brisbane: The University of Queensland.

Ravuvu, A. (1983). *Vaka i taukei: The Fijian way of life*. Suva, Fiji: Institute of Pacific Studies, University of The South Pacific.

Rees, R. (1996). *Twinned/clustered schools: Schools sharing resources.* Paper presented at the Annual Conference of the American Educational Research Association, New York: April 8-12.

Sharma, A.N. (1999). *Vocational education and training in Fiji: Management at the secondary school level*. Suva, Fiji: Anamika Publishers & Distributors.

Shields, P. & Tajalli, H. (2006). Intermediate theory: the missing link to successful student scholarship. *Journal of Public Affairs Education*, 12(3): 313-334.

Silverman, D. (1993). *Interpreting qualitative data: Methods for analyzing text, talk and interaction*. London: Sage.

Spears, J.D. & Oliver, J.P. (1996). *Rural school reform: Creating a community of learners*; Paper presented at the Annual Meeting of the American Educational Research Association, New York: April.

Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.

Streifel, J.S., Foldesy, F. & Holman, D.M. (1991). The financial effects of consolidation. *Journal of Research in Rural Education,* 7(2), 13 – 20.

Subramani (2000). Re-inscribing vision". In *Learning together: Directions for education in the Fiji Islands*. Fiji Islands Education Commission/Panel. Suva, Fiji: Government Printer. pp 1 – 16.

Tavola, H. (2000). Education in Rural Fiji. In *Learning together: Directions for education in the Fiji Islands*. Fiji Islands Education Commission/Panel. Suva, Fiji: Government Printer. pp 162 – 177.

Thaman, K. (2002). *Learning to be: a pillar or foundation for life long education.* An address delivered to the Fiji Institute for Educational Research, Public Lecture on 23rd October, 2002 at USP.

Thaman, K. (2001). *Towards culturally inclusive teacher education with specific references to Oceania*. Keynote address, 11th World Congress of Comparative Education, Seoul, July 2-6, 2001.

The Education Centre (2004). *Pilot project Strategic Development Plan 2005-2008.* Ministry of Education: Suva.

Tierney, M. (1970). *A study of factors affecting the academic performance of the rural Fijian student*. Suva: USP.

UNDP & Government of Fiji. (1997). *Fiji Poverty Report*. Suva, Fiji: Government Printer.

Useem, E.L. (1994). *Renewing schools: A report on the cluster initiative in Philadelphia.* The Philadelphia Partnership for Education, Philadelphia, Pennsylvania.

Velayutham, T. (1986). "School Organization and Management". In ED 291 Reader: USP Extension Services, Suva: University of the South Pacific.

Vulliamy, G. & Webb, R. (1995). The implementation of the national curriculum in small Primary schools. *Educational Review,* 47(1), 25 – 41.

Walker, E.M. (1992). *Restructuring urban schools in Newark: An evaluation of the Cluster Schools Programme*. Newark Board of Education, New Jersey: Office of Planning, Evaluation and Testing.

Webb, R.T. (1994). *After the deluge: Changing roles and responsibilities in the Primary school*. London: Association of Teachers and Lecturers.

Whitehead, C. (1981). *Education in Fiji since independence: A study of government policy.* Wellington: New Zealand Council for Education Research.

Williams, E. (2000). Fijian education. In *Learning together: Directions for education in the Fiji Islands*. Fiji Islands Education Commission/Panel. Suva, Fiji: Government Printer. p191

Yates, R. (2001). Small schools face the challenge: A case study of a group of small rural schools in New Zealand. In *Providing Quality Education and Training for Rural Australians*; 17th SPERA National Conference Proceedings, Wagga Wagga, NSW, Australia: July 8-11.

Yin, R.K. (1989). *Case study research: Designs and methods*. Beverly Hills: Sage Publications.

APPENDIX A

RESEARCH PERMIT FROM MOE
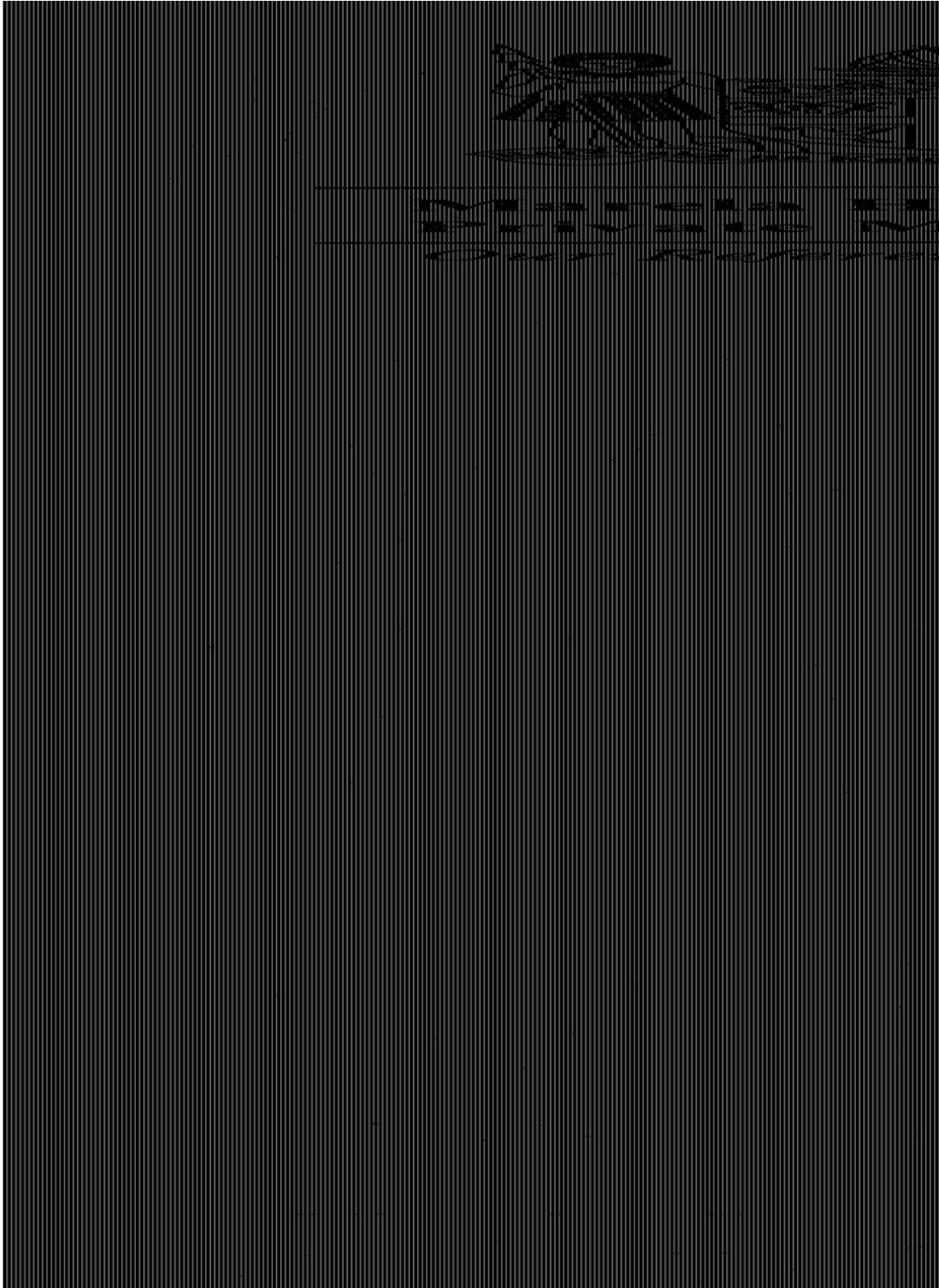
APPENDIX C

QUESTIONNAIRE - CLUSTER SCHOOLS

One of the main problems faced by small schools is that of economic viability that is, it has become expensive to run such schools. Clustering (or twinning) is the practice of grouping schools together for the primary purpose of improving education and offers these small schools an option of viability and sustainability rather than face closure. The cluster can comprise about 3-5 schools in close proximity to each other.

Of the 3 models of *school clusters* given below, select one which you think can best suit our local situation. Give an explanation for your choice.

Model 1 : Rural-Rural Cluster (RRC)
In this model, 5 or more rural schools get together into a cluster. One of the schools, preferably the best performing or economically capable school, is chosen to be the lead school

☐ _____

_____

Model 3 : Rural-Urban Cluster (RUC)
In this model, 5 or more rural schools get together into a cluster. Since none of the rural schools is in a position to assume the leadership role, an urban school is chosen to be the lead school

☐ _____

_____

Model 4 : The Education Centre (TEC)
5 or more schools get together into a cluster. All the schools share the same responsibilities and are treated as equal partners – there is no selected leader.

☐ _____

_____

THANK YOU

APPENDIX D

QUESTIONNAIRE – RESPONSES

Cluster Model	Response	Percentage
Model 1 : Rural-Rural Cluster (RRC) In this model, 5 or more rural schools get together into a cluster. One of the schools, preferably the best performing or economically capable school, is chosen to be the lead school	25	43
Model 3 : Rural-Urban Cluster (RUC) In this model, 5 or more rural schools get together into a cluster. Since none of the rural schools is in a position to assume the leadership role, an urban school is chosen to be the lead school	10	17
Model 4 : The Education Centre (TEC) 5 or more schools get together into a cluster. All the schools share the same responsibilities and are treated as equal partners – there is no selected leader.	23	40
Total Sample	**58**	**100**