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# An evaluation of the extended hours timetable adopted by Edmund Rice College

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# **An Evaluation of the Extended Hours Timetable Adopted by Edmund Rice College**

**A thesis submitted in partial fulfilment of the requirements  
for the award of the degree**

**Master of Education (Honours)**

**The University of Wollongong  
by  
Brian J. Ireland, B.Sc., Dip.Ed., M.Stud.Ed.**

**Faculty of Education  
1993**

## Abstract

This study analyses in detail the extended hours timetable developed and implemented by Edmund Rice College, a New South Wales Catholic Secondary School.

The innovation was meant to provide a framework from which the College could, over a long period of time, reassess and redevelop its organisational and teaching practices.

The study investigated the effects of the innovation and the circumstances in which they occurred. It analysed the process of innovation adopted by Edmund Rice College in order to better understand the problems of organisational innovation in general. The study also investigated the extended hours concept in order to ascertain its relevance in a broader educational context.

Primarily the study is an “ex-post” evaluation that has much in common with the action research model. The researcher was a full-time teacher employed in a middle-management position at the school.

This study includes a detailed cost analysis of the innovation as well as an in-depth survey analysis of the effects of the organisational change on the members of the school community.

The study finds that the extended hours innovation does have the potential, if adopted on a wider scale, to lead to a more economic utilisation of educational resources, both in the public and private sector.

## **Declaration**

I certify that this is my original work and that it has not been submitted for a degree at any other university or institution.

Brian Ireland

## Acknowledgements

I would like to thank Mr. David Lear, and the staff, parents and students of Edmund Rice College.

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# Chapter 1

## Introduction

This study will record and analyse one school's experiences in devising and implementing organisational reform. It will focus on Edmund Rice College, a New South Wales Catholic Boys' Secondary School. The implementation by this school of an extended hours timetable represents an individual school's response to a particular set of circumstances.

For a number of years Edmund Rice College was experiencing pressure from a variety of sources that was placing a strain on certain operational and philosophical aspects of the school. These problems included:

- How could the College finance a substantial building program in a way that would minimise the burden on the school community?
- Usage of the College facilities was almost saturated during existing school hours but remained under utilised for periods outside these times. How could the College even out the "peak-load" demand on its resources while at the same time place itself in a better position to cope with increasing enrolment pressures?
- How could the pastoral aims of the College be achieved in the face of continued growth and change?
- How could the College maximise the advantages of being an independent school and provide a more flexible and attractive environment for its employees?

After an analysis of the problems confronting the school, the College Administration rejected solutions such as increasing student fees, introducing enrolment constraints or altering philosophical priorities. They sought a different solution.

The direction finally chosen was to extend the operating hours of the College, effectively creating two over-lapping shifts of schooling. It was proposed that a

morning shift would cater for Years 7 to 10 while an afternoon shift would be offered to Years 11 and 12. This operational framework was considered by the College community to have the potential to provide the flexibility needed to address the existing problems confronting them as well as providing a base to tackle new pressures in the future. This model of operation was implemented at the commencement of the 1991 school year.

It will be clearly demonstrated in this analysis that the extended hours innovation implemented by Edmund Rice College is more than a simple set of timetable changes. It will be shown, in fact, that these changes enhance the organisational and financial efficiency of the school and have the capacity to do so in other educational settings.

This study proposes to analyse the innovation of Edmund Rice College and to present the findings in a context that would allow insights to be gained into the experiences of the educational community involved. School communities considering implementing any organisational innovation often wish to know how other people in a similar environment have coped or are coping with change. This study will offer some assistance in this area of concern.

There is a growing consensus among researchers into school improvement and educational change that the basic unit of improvement is the individual school (Caldwell and Spinks, 1988 : Fullan, 1990, 1991 : Levine and Lezotte, 1990). Individual schools must be committed to ongoing development if they are to become more effective. As McGaw et al (1992:134), point out:

*“The crucial requirements for making schools more effective are a closer understanding of the dynamics of change, a more sensitive recognition of the threats it poses to its stakeholders, and optimising the conditions most likely to lead to substantive and sustained change.”*

It is essential for individual schools to share their experiences in their attempts to become more effective. Although each individual school is unique and has its own particular culture, each has its own contribution to make to the collective evaluation of educational practices. This study of the extended hours model adopted by Edmund Rice College has a place in educational research if only to serve as a vehicle for the sharing of experiences of an individual school seeking greater efficiency in the service it provides.

There is, however, another dimension to this study. Educational reform in Australia in the nineties has become firmly entwined with the concept of the "national economic interest". (Scott, 1990: Connors, 1991: Istance and Lowe, 1991). Severe budgetary constraints have resulted in intense pressure on Federal and State Departments to deliver more effective and cost-efficient services. As government bodies have been forced to become more critical of their organisational efficiency, so too have all those institutions dependent on the public purse.

This study will examine the Edmund Rice College innovation in order to determine whether it has the potential, if adopted on a wider scale, to lead to a more economic utilisation of public resources. The innovation will be examined to determine whether or not it enhances the school's ability to become an effective school, both in a financial sense as well as in a broader context.

This study will investigate the extended hours model adopted by Edmund Rice College to determine whether it should become another option educational policy-makers can consider when seeking to find the most effective ways of distributing the scarce educational dollar.

In particular, the innovation will be carefully examined to ascertain the value of its application in addressing specific problems such as:

- Providing alternatives to school closures when communities are confronted with changing enrolment patterns.

- Providing an alternative that will encourage more efficient use of existing resources
- Providing an alternative for administrators in the private school sector who are seeking ways to satisfy a growth in demand for non-government school placements in an economic environment that severely constrains their ability to provide such growth in services.
- Providing an alternative to the establishment of new, senior secondary schools as a means of coping with increased retention rates.

These general objectives will be met by initially investigating the Edmund Rice College innovation at a micro-level. From this detailed analysis wider, more general applications at the system level will be considered.

## Specific Aims of This Study

This study will focus on an evaluation of the extended hours project devised and implemented by Edmund Rice College. The objectives of this evaluation are as follows:

1. To ascertain the effects of the innovation; to document the circumstances in which they occur; and to present this information in a form that will assist educational decision-makers to evaluate the likely consequences of adopting the innovation.
2. To analyse the educational setting in which the process of innovation occurred at Edmund Rice College. This will allow educational decision-makers to compare their educational environment with that of Edmund Rice College in order to assess the similarities and differences.
3. To analyse the process of innovation adopted by Edmund Rice College so that educational decision-makers may gain insight into the methodology adopted at an individual school level.
4. To contribute to the understanding of the problems of organisational innovation at an individual school level as a subset of organisational innovation in general.
5. To test the hypothesis that the extended hours innovation adopted by Edmund Rice College was cost-efficient and that, if adopted on a wider scale, it has the capacity to lead to a more economic utilisation of educational resources.
6. To investigate whether alternative organisational structures can be developed by individual schools and to ascertain whether these

can provide more flexible frameworks that can better respond to the school community's needs.

Schools are very complex communities. Any study investigating school-based innovations should reflect the multi-faceted nature of the organisation and the interaction between its stakeholders. Hence this study is multi-faceted.

Many policy makers treat problems in school education simplistically. Often policies are designed to tackle specific problems without any insight into the difficulties schools must face in implementing change in the context of the total school environment. As McGaw et al (1992:135), point out:

*"Educational administrators and the proponents of reform have a tendency to believe that the hard part of educational reform is over when the policies have been developed, the resources allocated and the process of change initiated, but the hard part, as it turns out, has proven to be the implementation at the school level, if anything more than token compliance with the proposed change is to be expected."*

One way of addressing this problem is to document individual schools' experiences in coping with change and make these records available to facilitate the sharing of ideas and the adaptation of relevant points of interest to satisfy a specific school's needs. This study of the Edmund Rice innovation will attempt to fulfil this role.

In order to pursue the aims of this study, the following areas will be addressed:

- (i) A detailed examination of the environment of the school that led to the implementation of the innovation and an analysis of the structure of the extended hours model itself.

- (ii) An analysis of the process of development and implementation adopted by Edmund Rice College.
- (iii) A financial cost analysis of the extended hours innovation.
- (iv) An examination of the effects of the innovation on the staff, students and parents of the College.
- (v) A consideration of the implications for the wider educational community.

All these dimensions need to be considered if this study is to provide the breadth and depth of information required by schools and educators in order for them to be able to assess the implications of the innovation in terms of their own situation.

This study is designed to investigate the actual process of innovation development and implementation experienced by an individual school and to analyse the implications of this innovation both at an individual school community level as well as in a broader context.

## Methodology

Because the researcher in this case was an active participant in the development and implementation of the particular innovation under scrutiny, the research methodology has much in common with the action research model.

Stenhouse (1975), was one of the first educators to promote the idea of teachers as researchers. Subsequently, educators in the United Kingdom such as Elliott and Adelman (1973), and in Australia Kemmis (1982), Kemmis and McTaggart (1981) and Tripp (1985) have been strong advocates of this type of research methodology.

Carr and Kemmis (1983:154), state an agreed definition of educational action research developed by participants in a National Invitational seminar on Action Research held at Deakin University, Victoria, in 1981:

*“Educational action research is a term used to describe a family of activities in curriculum development, professional development, school improvement programs, and systems planning and policy development. These activities have in common the identification of strategies of planned action which are implemented, and then systematically submitted to observation, reflection and change. Participants in the action being considered are integrally involved in all of these activities”.*

Two essential features of action research are to improve and to involve. Carr and Kemmis, (1983:155), emphasise that the improvement covers areas such as:

- improvement of practice,
- improvement of the understanding of the practice by its practitioners,
- improvement of the situation in which the practice takes place.

Carr and Kemmis (1983:169), stress that action research is a social form of research that requires:

*“a participatory way of understanding the personal knowledge and practical judgement of practitioners”.*

Cohen and Manion (1980:181), suggest that there are a number of occasions when action research as a method is appropriate in education. These include:

- altering or improving teaching methods,
- improving evaluative procedures,
- introduction of new techniques in management and control,
- increasing efficiency in administration and organisation.

Both Carr and Kemmis and Cohen and Manion imply that an action research program includes a number of possible stages:

1. The identification and formulation of the problem.
2. Cycles involving planning, acting, observing, questioning, reflecting and reviewing.
3. The selection of research procedures which may include sampling, administration, allocation of resources, choice of materials.
4. The selection of evaluation techniques and procedures.
5. The implementation of the project itself.
6. The evaluation of the project data, drawing inferences and making modifications.

Carr and Kemmis (1983:177), indicate that action research is not rigid in its use of a specific set of research techniques. Cohen and Manion support this idea by making a comparison between applied research and action research (1980:175). They

state that applied research is rigorous in its application of specific techniques of data collection and analysis. The use of the scientific method to devise generalised truths is replaced in the action research model by an emphasis on gaining precise knowledge for a particular situation and a particular set of circumstances.

Carr and Kemmis (1983:162), emphasise the role of cycles of planning, acting, observing, and reflecting in the overall process of action research. They stress that action research should bridge the gap between retrospective understanding and prospective action. This implies that the practice of action research is a process of continual self-monitoring and adjustment over a period of time.

A specific criterion for action research, according to Carr and Kemmis (1983:155), is that:

*“ . . . the project involves those responsible for the practice in each of the moments of the activity, widening the participation in the project gradually to include others affected by the practice, and maintaining collaborative control of the process”.*

It may be argued that a research study conducted by an individual participant in a collaborative project does not constitute “widening the participation in the project”. It must be stressed that, in this particular study, the researcher was actively involved in providing feedback to other participants in the form of opinion, both informed and subjective. The researcher was also actively involved in some of the decision making process during various stages of the formation of the extended hours project at Edmund Rice College. This study has been conducted with the knowledge and active participation of the various participants in the extended hours project.

This study of the Edmund Rice College innovation does not follow rigidly the action research model. Primarily the research is an “ex-post” evaluation. It is not specifically part of a cyclic process of planning and modification. Because of the

researcher's integral and continuing involvement with the innovation, however, it is inevitable that certain aspects of the evaluation will be used in ongoing development at Edmund Rice College.

There are two definite factors influencing the methodology of this study:

1. As a full-time teacher employed in a middle-management position at Edmund Rice College. (i.e. Head Science Teacher), the researcher is able to offer a unique, intimate perspective on the innovative process experienced by the community of Edmund Rice College. This factor allows insights into the process that would not be accessible to external evaluators.
2. As a researcher in the field of education, an effort has been made to evaluate critically the innovation in a wider educational context. This factor has led to a broader interpretation of findings than would have resulted if the evaluation had been conducted for purely internal purposes.

## The Structure of this Study

This study will be structured in the following way;

1. Chapter 1 has presented an introduction to the specific aims of this study. It has commented on the methodology utilised in researching the extended hours innovation adopted by Edmund Rice College. It will also offer a brief profile of the school itself.
2. Chapter 2 will present an overview of relevant educational research that should be considered by individual school communities when considering organisational change. The factors emphasised in this chapter will provide the background for further detailed analysis of the Edmund Rice College innovation that will be presented in the remainder of the study.
3. Chapter 3 will outline some relevant features of the history of the school. It will also outline the pressures experienced by the College community that led to a consideration of an innovative restructuring of some of its organisational practices.
4. Chapter 4 will describe the particular innovation chosen by the school administrators to confront the problems highlighted in the preceding chapter. It will also discuss the implementation of the extended hours model using recent literature on school innovation to assist the analysis.
5. Chapter 5 will present a detailed assessment of the cost-efficiency of the innovation and its contribution to the financial management of the school.
6. Chapter 6 will assess the attitudes of the school community to the innovation. In particular it will utilise the survey as an analytical tool to ascertain the impact that the innovation has had on the staff, the parents and the students of the College.

7. Chapter 7 will investigate the potential application of the innovation adopted by the College to assist in alleviating specific problems being experienced by other schools and school systems.
8. Chapter 8 will draw together the findings of the total study and present a list of conclusions regarding the Edmund Rice innovation. It will also present a number of recommendations for future research into the factors highlighted by this study.

## **Edmund Rice College**

### **- Some Background Information**

Before detailing the pressures and the specific conditions that led the College Administration to consider alternative organisational solutions additional information will be provided on certain characteristics of the College. This information is essential in order to gain some insight into the educational setting in which the process of innovation occurred at Edmund Rice College. This will allow educational decision-makers to compare other educational environments with that of Edmund Rice College in order to assess similarities and differences. Only then will analysts gain insight into the appropriateness of using the experiences of the School as a model for other educational settings.

### **The Administrative Structure of Edmund Rice College**

The Headmaster of Edmund Rice College is appointed by the Provincial Council of the Order of Christian Brothers. As such, the Principal is responsible to this Council for all matters concerning the administration of the College. Principals of Edmund Rice College have always been members of the Christian Brother order, thus ensuring a personal commitment to the ideals of the order as well as a professional responsibility to administer the school according to these ideals.

As a Catholic School the philosophy of the College is firmly based on the Christian philosophy of life. The Catholic Church says that it is the right and duty of Catholic parents to form and educate their children in accordance with the fundamental beliefs of the Church. In the modern context, this duty of family is frequently shared with the Catholic School.

It is not an aim of this thesis to detail the philosophies of Catholic Education in Australia. It is essential, however, to establish the main elements in the philosophy of the school in order to appreciate fully the conditions under which the innovation was developed and later implemented. Such an appreciation is necessary in order to assess the appropriateness of applying part or all of the innovation to other educational situations.

The Principal at Edmund Rice College is the employer of all staff on behalf of the Congregation of Christian Brothers. This factor gives the Principal at this school very close control over the overall strengths and weaknesses of his staff. It gives him much greater flexibility to ensure that any teacher employed at the College is sympathetic to the ideals of the College. The ability to select staff personally also gives the Principal some control over the direction of curriculum changes and emphases at the School.

Teachers are accepted onto the staff of Edmund Rice College under the conditions of the Industrial Award granted periodically to the Independent Teachers' Association of New South Wales. A letter of appointment, signed by the Headmaster and by the teacher appointed, is issued by the College at the time of appointment. This is the only form of contract used at Edmund Rice College. There is no fixed term of employment, there is no re-negotiation of contract after a set number of years. Maintenance of employment conditions at this school is achieved through a combination of reliance on the appropriate industrial award and a relationship of trust between the Principal and the employee.

The Headmaster at Edmund Rice College appoints teachers to promotional positions. The Industrial Award stipulates a minimum number of promotions positions that is tied to the overall student population. In 1990, the College student population required a minimum of 12 positions of responsibility. These positions of responsibility are divided basically into three areas:

1. the First Assistant,
2. Studies Co-ordinators,
3. Guidance Co-ordinators.

Appendix 1 outlines the administrative structure of the School and lists the associated period allocation and salary structure.

The Subject Co-ordinators and the Guidance Co-ordinators comprise the middle-management of the school. They form an important link in the

communication network of the College. They frequently have the responsibility of ensuring that instructions from the Principal or the Deputy Principal are communicated to the teaching staff and that these instructions are appropriately enacted upon.

The administration of Edmund Rice College is committed to the concept of a comprehensive high school population. It is a single sex school, it has a Catholic tradition, but in academic ability the student intake covers a broad range. Thus, philosophically, the School rejects the alternative of academic selectivity.

The College seeks to maintain the integration of its pastoral and academic roles. The staff handbook highlights this aim:

*"The school as a community is concerned with the total welfare of its students - it is a caring community. In fulfilling this caring role the teaching staff not only support the academic role of the school but participate in a central educative function".*

Among others, this pastoral role includes:

- "(a) Assisting the student to enrich and develop his personal lifestyle as an individual while being aware and respecting that of others.*
- (b) Providing opportunities for all students to develop self-esteem through the utilisation of their varying abilities and interests.*
- (c) Offering guidance and counselling to help students make their own moral, social and educational decisions.*

- (d) *Maintaining an atmosphere of mutual respect between students and staff which will be supportive of the academic role and assist in the provision of the controlled atmosphere necessary for a school to operate effectively."*

(Staff Handbook, 1990)

## **Student Profile**

### **Geographical Distribution**

The school's catchment area extends from Stanwell Park in the north to Kiama in the south. This area is a relatively narrow coastal region in New South Wales of approximately 50 kilometres in length.

In 1990 boys entering Year 7 at Edmund Rice College came from 28 different primary schools, both government and non-government.

### **Religious Distribution**

The school is a Catholic secondary school with 75 per cent of students professing that particular religion. Table 1.1 lists the stated religions of the remaining 15 per cent of the student population. (figures quoted are for the 1991 enrolment.)

An analysis of these figures indicates a broad spectrum of religious followings. Of the 149 students who listed their religion as non-Catholic, 23 per cent were classified as non-Christian.

Table 1.1

- The following table indicates the stated religion of non-Catholic boys enrolled at Edmund Rice College in 1991.

Religion	Number	
Baptist	4	
Budhist	6	
Church of Christ	3	
Church of England	55	
Congregational	1	
Hindu	7	1991 Enrolment 995
Islam	3	% of non-Catholic
Jew	1	students 15%
Lutheran	4	
Methodist	2	
Moslem	17	
Orthodox	20	
Pentacostal	1	
Presbyterian	7	
Uniting	9	
<u>No Religion</u>	<u>9</u>	
 <u>Total</u>	 <u>149</u>	

## **Student Ethnic Backgrounds**

Table 1.2 indicates that the student population was significantly multicultural. Forty seven countries other than Australia are listed as the country of birth of either the student or one or both of the parents. In excess of 70 per cent of the students were either born in a country other than Australia or had one or more of their parents born outside Australia.

Members of the school community with Italian origins formed the largest ethnic sub-group. This was followed by groups from Britain, Lebanon, Spain, Portugal, Germany, and Vietnam. The broad cultural mix clearly contributed to unique relationships between the various members of the College community, both internally and externally.

Other schools will have their own unique cultural mix. Many schools in Australia will, however, be able to identify with the cultural diversity of the Edmund Rice College community. This diversity is, obviously, a reflection of the multicultural population of Australia in general.

The preceding information has highlighted some important features of Edmund Rice College. The administrative structure, the school philosophy and the student cultural profile help establish some aspects of the culture of the school. The following chapter will analyse relevant educational literature in order to provide the background and set the direction for a more detailed analysis of the extended hours model.

**Table 1.2**

- The following table indicates the country of birth of students and parents not born in Australia.

<b>Country of Birth</b>	<b>No. of Students</b>	<b>No. of Fathers</b>	<b>No. of Mothers</b>
Argentina	2	4	1
Brazil	0	0	1
Canada	1	0	1
Chile	2	12	10
China	0	7	2
Columbia	0	1	0
Colombo	1	0	0
Cook Islands	1	0	1
Croatia	0	14	11
Cyprus	0	1	1
Czechoslovakia	0	2	0
Denmark	1	1	1
Egypt	0	1	1
England	3	41	30
Fiji	0	1	1
France	0	4	3
Germany	3	19	10
Greece	0	10	7
Hong Kong	1	5	4
Holland	0	12	8
Hungary	0	5	3
India	0	7	7
Ireland	1	14	7
Italy	3	110	90
Kenya	2	2	0
Korea	1	1	1
Laos	1	1	1
Lebanon	4	26	24
Malaysia	1	3	2
Malta	0	14	10
New Zealand	2	3	3
Norway	0	1	0
Pakistan	1	2	2
Poland	2	3	8
Portugal	0	16	14
Scotland	3	12	15
South Africa	3	3	2
Sri Lanka	0	1	0
Spain	2	15	15
Tonga	1	2	1
Turkey	1	1	1
Uruguay	1	3	5
Uganda	0	0	2
USA	0	1	4
Vietnam	15	14	14
Wales	1	3	2
Yugoslavia	0	11	2
<b>Total</b>	<b>60</b>	<b>410</b>	<b>336</b>

(Source: Edmund Rice College enrolment records)

# Chapter 2

## School Organisation and Effective Schools

In the analysis of the extended hours innovation some related questions should be investigated. These include:

1. The Edmund Rice College extended hours experiment is an example of organisational change that sets out to utilise existing facilities in a more efficient, creative and cost-effective way. Is there a need for schools to utilise their capital resources more efficiently?
2. The Edmund Rice College extended hours innovation sets out to develop a flexible organisational environment that will enhance its ability to be effective in the pursuit of its goals. What are the features of an effective school that should be investigated in order to ascertain the impact of the extended hours innovation on the school's educational effectiveness?
3. The Edmund Rice College extended hours model is an example of organisational change. Is school organisation an important factor in developing effective schools?

Reference to educational literature will facilitate the derivation of some important concepts that will establish the direction of further detailed investigation of the Edmund Rice experience. It will also assist in placing the Edmund Rice College experiment into a wider context of school organisation and innovation.

## **The Need for More Efficient Use of School Facilities**

The condition of school buildings and grounds can shape the morale of teachers and the attitudes of the students. The availability of space is an obviously important educational input.

Changing demographic patterns make accurate forecasting of future school facility needs very difficult. In Australia, the size and nature of the school-aged population have been affected by recent demographic changes. Birth rates were relatively high during the 1950s. The late 1960s, the 1970s and the 1980s were all characterised by much lower birth rates. These factors resulted in successive enrolment peaks passing through the years of primary, junior secondary and senior secondary schooling.

Growth in the numbers of schools and the provision of schools of adequate size are both influenced by student population changes, parent choice, the availability of resources and educational priorities. The National Report on Schooling in Australia (1991:5), indicates that systems have responded to the changing needs in the provision of schooling in a variety of ways:

- Closing or amalgamating schools and selling school sites to fund the educational needs of other areas.
- In the construction of new schools designers sometimes locate schools in close proximity to each other so that resources may be shared. This may be done in anticipation of future changes in enrolment patterns.
- Creative design has led to some schools being constructed so that they may be converted into housing units or other community facilities at a later date as enrolments decline in the schools' catchment areas.

The Edmund Rice College innovation has the potential to offer another more effective alternative to those mentioned above. Further analysis of the Edmund Rice innovation is indicated in order to support this statement.

In Australia, for use in determining priorities for the allocation of capital grants, a system has been developed that denotes the recommended classroom area stipulated for schools of differing sizes and types. Thus the number of square metres of general learning area recommended for a school of 900 students would be different than that recommended for a smaller school of 600 students. Specialist room requirements are stipulated, as are staff areas and office space.

The Edmund Rice innovation, which allows a smaller area of buildings to house a larger number of students than this conventional formula permits, offers a more efficient alternative to the currently used method. Further analysis to support this claim will be presented later in this study.

Coombs and Hallak (1987:88), stipulate that future capital needs of any individual school or school system depend on an estimation of anticipated physical needs. These include:

- necessary repairs and replacements to maintain existing facilities in good condition,
- net additions to present capacity needed to accommodate more students, either by enlarging existing institutions on the same site or building separate, new facilities,
- modifications and additions to existing facilities to support changes in educational programs.

When faced with increased demand for capital resources Windham (1988:15), offers three alternatives:

1. to obtain new levels and sources of funds,
2. to accept poorer quality and/or reduced access,
3. to increase the efficiency with which existing and future resources are used.

In the economic environment of the 1990s the first alternative is rarely available. The second alternative is rarely acceptable. Thus individual schools or school systems, if faced with an increase in future capital needs must look for ways to make more efficient use of present and future resources.

To ascertain the relevance of the Edmund Rice College extended hours model to these problems it is essential to determine the cost-effectiveness of the innovation. When comparing the usage of school facilities it is important to use a valid method.

Classroom size may vary depending on location and degree of required specialisation of use. A science laboratory or an art room may be larger than a more general learning area. Direct comparison between schools of total or average facilities per student may lead to misleading assumptions about quality of education.

Psacharopoulos and Woodhall (1985:67), suggest that the potential for using facilities and other capital resources has been neglected:

*"A number of World Bank projects have attempted to improve the utilization of existing facilities, for example, through the increased use of the double-shift systems (as in Columbia, El Salvador, and Indonesia), the rotating use of classrooms (as in Cameroon, Guyana, and Sierra Leone), and the use of school buildings for evening programs for adults (as in Colombia, El Salvador, Guyana, and Tanzania)."*

Clearly, innovations such as those mentioned above could lead to distorted assumptions of facility utilisation if simple comparisons of overall area were made. To cloud the issue further, some countries have attempted to utilise resources more effectively only to find that the net result is a more inefficient system. Beeby (1979:50), relates the Indonesian experience:

*“In a country such as Indonesia, dual use of scarce buildings makes good sense, but if it is overdone, and if, as was often the case in the areas surveyed, there is little co-ordination between the participating schools, the practice can be more inhibiting to good modern teaching than are mediocre buildings more sparingly used.”*

More efficient use of the available resources is a better indicator of quality than raw aggregate sizes.

Conversely, Psacharopoulos and Woodhall (1985:67), indicate that some countries had significant space that was not being utilised at all. For example, a survey of Ghana showed that there was excess capacity of more than 28 per cent in general classrooms, 43 per cent in special-purpose classrooms, and 33 per cent in science laboratories. In this case, although the aggregate figures were impressive, they do not give a true picture of educational quality when used in isolation for comparisons with other national systems. Scott (1990:197), points out that:

*“Overseas surveys of typically low effective space utilisation in educational institutions points to the possibility that substantial opportunities will be uncovered for:*

- (a) increasing the usage rate of existing space, and*
- (b) productively reviewing school space design standards.*

Since school buildings absorb resources that could be used to purchase other school inputs such as books, better qualified teachers, and new technologies, it is important to establish criteria for judging investments in buildings in relation to improving educational outcomes. One technique is to calculate the annualised cost of capital investment into new construction projects. Mingat and Tan (1988:88), offer a mathematical formula to calculate this figure:

$$CA = \frac{C1 \times R(1+R)^n}{(1+R)^n - 1}$$

where : CA = Annualised cost

C1 = Initial investment

n = Number of years

R = Discount Rate

Annualising the cost of capital investment allows the cost of capital items to be spread out over their useful lifetime in order to allocate a proper share of these costs to each time period. This method is essential to determine the total unit cost per student. (i.e. recurrent cost plus capital cost) and to assist in making cost benefit assessments.

A certain initial investment, C1, is made in an asset and that asset will decrease in value at a rate of R per cent per annum, over the period of its economic life, N years. During this period the investor is deprived of the use of the amount C1 because it is invested in the asset and is unavailable. This formula allows an imputed "rent" or cost for all capital facilities to be calculated that can be used to estimate total education costs (or unit cost per student) in any one year.

This method of annualising the cost of capital investment in the construction of new facilities allows a comparison to be made with other alternative expenditures and facilitates easier decisions regarding possible opportunity costs. This is the method that will be adopted in the cost-analysis of the extended hours model provided later in this study.

## Factors Affecting School Effectiveness and Organisational Reform

School principals and teaching staff respond daily to all manner of crises and situations by bringing to bear their own personal repertoire of experiences. Most teachers in NSW schools have had little or no formal supplementation to their knowledge of educational theory or research findings since the beginning of their formal employment as teachers. Very rarely is any time set aside by schools in their calendar of staff development proposals to allow teachers to study and respond to relevant research findings. The majority of formal or informal staff development time is spent responding to immediate school needs or the redevelopment of school policy or programs in response to changes imposed by the educational bureaucracy.

There is, however, a body of current research that should be considered by individual school administrators and their teaching staff that could be utilised in conjunction with their local knowledge and experience. Whatever level of organisational change being considered, the ultimate goal is to make the school more effective in attaining its perceived goals.

Agreement as to what "effective" means is not always easily achieved, and it is often at this point that external input can add weight and substance to various arguments. This section will attempt to highlight some of the findings of a representative selection of educational researchers that may be relevant to school administrators and teachers considering the potential merits of organisational change.

An analysis of any educational system, whether a large government system or a relatively small subset of a larger system such as an individual school, includes certain key variables that need to be clarified and the relationship between these variables needs to be examined. Combs and Hallak group these variables into five major categories: objectives, inputs, internal processes, outcomes and benefits. Similarly, Chubb and Moe (1990), identified four basic dimensions they considered important to the quality of schools: goals, personnel, leadership and practice.

The following will explore these areas in an effort to elaborate on the key factors that make a difference to the quality of a school.

## 1. Goals and Shared Vision

When the staff and parents have a shared vision of what their school should be doing, the school is more likely to be seen as effective. The Effective Schools Project surveyed Australian school communities to obtain their opinions as to what contributes to making a school effective. Twenty six percent of the responses noted that a shared goal or vision is a basic feature of an effective school (McGaw et al 1992:29).

The following lists a sample of comments from the survey highlighting perceived characteristics of effective schools:

- nurturing a strong school identity,
- the articulation of clear goals and strategies for their attainment,
- a purpose that is clear, agreed, understood and recorded,
- clear and reasonable expectations established for students and staff.

The need to establish and clarify goals is clearly an important concern. The community, however, has diverse and often conflicting expectations of schools. Schools therefore frequently have difficulty coping with these expectations and developing priorities that will reflect a clarity of purpose and encourage commitment from all sections of its school community.

Individual schools cannot develop goals in isolation. As Brown and Hamilton (in Chapman et al 1991:91), point out:

*"Schooling is a cultural, economic and social institution  
which transcends local boundaries."*

Table 2.1 lists the goals set down by the Commonwealth Government for schooling in Australia. This list offers an example of societal expectations of schools in Australia.

**Table 2.1****Goals for Schooling in Australia**

1. To provide an excellent education for all young people, being one which develops their talents and capacities to full potential, and is relevant to the social, cultural and economic needs of the nation.
2. To enable all students to achieve high standards of learning and to develop self-confidence, optimism, high self-esteem, respect for others, and achievement of personal excellence.
3. To promote equality of education opportunities, and to provide for groups with special learning requirements.
4. To respond to the current and emerging economic and social needs of the nation, and to provide those skills which will allow students maximum flexibility and adaptability in their future employment and other aspects of life.
5. To provide a foundation for further education and training, in terms of knowledge and skills, respect for learning and positive attitudes for life-long education.
6. To develop in students:
  - a) the skills of English literacy, including skills in listening, speaking, reading and writing,
  - b) skills of numeracy, and other mathematical skills,
  - c) skills of analysis and problem solving,
  - d) skills of information processing and computing,
  - e) an understanding of the role of science and technology in society, together with scientific and technological skills,
  - f) a knowledge and appreciation of Australia's historical and geographic context,
  - g) a knowledge of languages other than English,
  - h) an appreciation and understanding of, and confidence to participate in, the creative arts,
  - i) an understanding of, and concern for, balanced development and the global environment, and
  - j) a capacity to exercise judgement in matters of morality, ethics and social justice.
7. To develop knowledge, skills, attitudes and values which will enable students to participate as active and informed citizens in our democratic Australian society within an international context.
8. To provide students with an understanding and respect for our cultural heritage including the particular cultural background of Aboriginal and ethnic groups.
9. To provide for the physical development and personal health and fitness of students, and for the creative use of leisure time.
10. To provide appropriate career education and knowledge of the world of work, including an understanding of the nature and place of work in our society.

(Source: Report on Schooling in Australia, 1989:iii)

In 1991 the New South Wales Department of School Education produced the document, "The Values We Teach", which specified social and personal goals for students. This lists a core of values that schools were expected to develop in students. These include values concerned with learning, knowledge, curiosity, logical and critical thinking, truth, life-long learning, self acceptance, responsibility, co-operation, honesty, respect for others and health and fitness. It also included values such as social justice and the elimination of discrimination.

Inferences drawn from educational literature lead to the conclusion that certain goals are given higher priorities by schools deemed to be effective. Chubb and Moe (1990:80) found from their research into schools in the USA that high performance schools gave relatively higher priority to the less pragmatic goals of academic excellence, personal growth and fulfilment and human relations skills. Less effective schools tended to rank goals such as basic literacy, good work habits, citizenship and occupational skills much higher.

A number of other studies into factors that account for school effectiveness reveal similar goals that school administrators rank highly. Brookover et al (cited in D'Amico 1982:61), in their research of 91 Michigan elementary schools, found that the prime goal that was emphasised in effective schools was that of mastery of basic skills. They found common commitment by staff and principals to the attainment of this goal.

Caldwell and Misko (1984:29-59), found from their research of Tasmanian schools that effective schools had clearly stated objectives and that there was high levels of commitment to the school goals and values by principals and teachers. These goals included programs which provided for the continuity of the students' development and the acquisition of skills.

Mellor and Chapman (1984:25), in their study of nine secondary schools in Victoria nominated as effective schools, found these schools to have "clarity of

purpose". High priority was given to the establishment of programs designed to cater for a diversity of student ability and interest.

Mulford (1985:9), carried out a comparison between overseas and Australian studies of effective schools. He concluded that there was:

*"less of an emphasis on basic academic skills and more of an emphasis on a program designed to cater for a diversity of student ability and interest in the Australian research."*

The impact of shared vision is evident in studies of differences in effectiveness between Catholic and public schools in the USA (Coleman, Hoffer and Kilgore, 1982: Willms, 1984). These studies found support for the idea that, when parents, staff and students hold a common understanding of the purpose of their school, the school is more likely to be regarded as an effective one. Ramsay and Clark (1990), carried out a comprehensive case study of a Catholic secondary school in Australia which supported the importance of common goals within a school community.

The results of the research of Chubb and Moe (1990:79), highlight and support the premise that it is the informal aspects of school goals that are most significant in relation to student achievement.

*"goals that are written down in an organisation manual or posted on a bulletin board - however lofty and thoughtful these goals may be - will not have the impact on the day-to-day effectiveness of a school that goals shared and acted upon by the school staff will have."*

It is important when considering the educational variable of goals or objectives to look beyond the glossy veneer of objectives published for show, to the more fundamentally significant case of "objectives in practice". These goals are

more easily discerned through the actions of those involved in an individual school or at system level.

The importance of goals and shared vision expressed by the effective schools literature indicates that in the further analysis of the Edmund Rice College extended hours innovation, the following questions should be examined:

- Has the innovation affected the level of commitment of the College community to the school's goals and values?
- Does the college community have a clarity of purpose in relation to the innovation?
- Has the implementation of the extended hours model enabled the College community to move closer to the achievement of its stated goals?

In order to permit this analysis, some insight must be gained into the character and ethos of the College. In this study this will be facilitated in Chapter 3 by an examination of the history of the College and an investigation into the pressures experienced by the College community that led the school administrators to consider an organisational innovation.

## **2. Teachers in Effective Schools**

The teacher, as the focus of most classroom instructional activity, is an important educational input. Education systems allocate the largest part of their expenditure to the employment of teachers. In July, 1989, there were over 200,000 full-time and part-time teaching staff in Australian schools. Of these, approximately 150,000 taught in government schools and the remaining 50,000 taught in non-government schools. The total expenditure on primary and secondary government schools during 1988-89 was \$8.3 billion. Teaching salaries accounted for approximately 58 per cent of the total expenditure in the government schools sector. (Statistical Annex : National Report on Schooling in Australia, 1989).

Improvement in teacher quality is a most visible indicator of school effectiveness and is frequently used as a measure of school improvement. In 1984

the OECD Ministers of Education clearly voiced their view of the importance of teacher quality in enhancing school performance.

*“Effective schooling at all levels depends on a highly qualified and motivated workforce.”*

*(Schools and Quality 1989:71)*

Some of the more commonly used indicators of teacher quality include:

- formal educational attainment
- teacher training attainment
- age/experience
- attrition/turnover
- specialisation
- ethnic/nationality
- subject mastery
- verbal ability
- attitudes
- teacher availability measures

*(Windham 1988:26)*

The first two indicators assume that there is a positive correlation between formal academic qualifications and the ability of a teacher to effectively impart this gained knowledge to their students. This assumption is usually embodied in teacher industrial awards which link the first two factors of formal educational attainment and teacher training attainment with the third listed factor of age/experience.

Table 2.2, (A Teachers Guide to Award Restructuring 1992:VIII) indicates the salary scales for NSW non-Government School Teachers. It is clear from this table that there has been a combination of the years of service concept with the concept of formal qualifications into an award that specifies steps for each level. The point of entry onto the ladder is determined by the teacher's formal qualifications.

Again, there are implicit assumptions in this method of valuing teacher quality.

*"One must assume or be assured that the extra cost of having older, longer serving, or more experienced teachers is at least offset by the differential effect of these teacher characteristics on classroom and school outputs and outcomes. If not, there is then no educational justification for the pay system."*

(Windham 1988:28)

Chubb and Moe (1990), indicate that there are other variables in relation to school personnel, and in particular teachers, that require careful consideration. Using the data collected from the High School and Beyond Administrator and Teacher Survey, conducted in 1984 using a national sample of 532 schools, the researchers attempted to identify various qualities possessed by teachers that are seen to operate as "professional communities". They were particularly interested in the influence that school organisation and administrative bureaucratisation has on these qualities.

Table 2.3 summarises the results of their analysis. As stated earlier, the variables of teacher experience and teacher turnover or attrition rates are often used as indicators of school quality. However, the results obtained by Chubb and Moe indicate that staff stability is not a variable that has significant bearing on the academic performance of schools. High performance and low performance schools appear to have approximately the same percentage of experienced teachers. This

**Table 2.2**

The minimum annual rate of salary payable to full-time teachers in schools shall be as follows:

Step	Per Annum
	\$
1	21,896
2	23,317
3	24,871
4	26,159
5	27,580
6	29,001
7	30,422
8	31,844
9	33,264
10	34,686
11	36,107
12	37,528
13	38,950

**Senior Teacher**

Level	Salary Per Annum
	\$
1	40,180
Level	Allowance Per Annum
	\$
2	1,845

**Provided that:**

**(a) Four & Five Year Trained Teachers**

- (i) A Four Year Trained Teacher shall commence on Step 5 of the scale and progress according to normal years of service to Step 13 of the scale;
- (ii) A Five Year Trained Teacher shall commence on Step 6 of the scale and progress according to normal years of service to Step 13 of the scale;
- (iii) A Four Year Trained Teacher upon satisfying the requirements for classification as a Five Year Trained Teacher shall have his or her incremental position advanced one year with retention of normal incremental date and shall thereafter progress according to normal years of service

**(b) Two & Three Year Trained Teachers**

- (i) A Two Year Trained Teacher shall commence on Step 2 of the scale and progress according to normal years of service to Step 9 of the scale;
- (ii) A Two Year Trained Teacher who by further study satisfactorily completes the equivalent of one year of full-time study of a degree course, shall be deemed a Three Year Trained Teacher and shall be paid an additional increment.

factor has particular cost implications for educational systems. As Chubb and Moe, (1990:88), point out:

**Table 2.3**  
**Staff Characteristics of High and Low Performance Schools**

School Characteristics	Low Performance Schools	High Performance Schools
• Teachers at school for at least 10 years	35.9	37.4
• Teaching esteem above average	39.7	57.8
• Teachers judged excellent by principals	23.3	31.7
• Teacher professionalism above average	27.7	59.3
• Teacher influence above average	44.5	52.5
• Teacher efficacy above average	32.7	60.1
• Absenteeism below average	39.5	63.8
• Staff harmony above average	42.7	61.4
• Teacher co-operation above average	33.8	62.0
• Teacher collegiality above average	49.2	65.9

*“Especially given the personnel rules of most public schools which reward seniority more than performance, it is quite plausible that teacher experience and student achievement are unrelated.”*

The OECD report, *Schools and Quality*, (1989:127), disagrees with Chubb and Moe’s conclusion. This report strongly emphasises the importance of staff stability, particularly where innovation is involved.

*“Schools do not function well if there are frequent staff changes or a high level of staff absenteeism. A stable staff is a pre-condition of a climate of security, order and continuity. It is a pre-condition of managing school improvement especially during the early period of an innovation.”*

Although seniority may be insufficient in isolation to guarantee school effectiveness, it is difficult to imagine an environment of continual and significant staff changes being stable enough to encourage innovation. Such an environment would not enable the members of a school community to develop the understanding and confidence in each other necessary to function effectively.

Table 2.3 indicates that the research of Chubb and Moe identified a number of other significant teacher qualities that are encouraged by the organisational culture of effective schools. These are:

- (i) Teacher influence in areas such as:
  - determining student behaviour policy,
  - setting policy on the distribution of students in classes,
  - establishing the school curriculum,
  - devising staff development programs

## (ii) Teacher efficacy

Teachers in less effective schools often

- felt success or failure in teaching their students was beyond their control,
- felt that it was a waste of time to do their best as a teacher.

These feelings of frustration may manifest themselves in relatively high absenteeism. The results in the table indicate a significant difference between absentee rates in high performance schools and low performance schools. Since absenteeism represents a significant financial cost to individuals schools and to school systems, any possible correlation between teacher influence, teacher efficacy and teacher absenteeism should bear close examination in any cost-benefit analysis.

## (iii) Teacher co-operation in areas such as:

- efforts to co-ordinate course content with other teachers,
- familiarity with the content and goals of courses taught by other teachers,
- time spent meeting with other teachers on lesson planning, curriculum, etc.
- teaching improvement aided by other teachers.

## (iv) Teacher collegiality

- a feeling that staff can count on each other for help,
- a sharing of beliefs and values about the central mission of the school,
- co-operation at many levels
- a sense of “family”
- a high level of participation in faculty social activities.

In its report on schools and quality (1989:126), the OECD reached a similar conclusion to that of Chubb and Moe by listing collaborative planning, shared decision-making and collegial work as one of its ten characteristics of effective schools. It stated that:

*"School cohesiveness depends on the concerted actions of a teaching staff that shares responsibility for defining and maintaining whole school goals and cares for the welfare of every student. This entails good relations among all the staff, participatory decision-making and collegial management."*

The degree of collegiality is a powerful influence on school effectiveness and school improvement. Little's (1981:76), in-depth research of six schools found that in effective schools:

1. teachers engaged in frequent, continuous and increasingly concrete talk about teaching practice,
2. teachers and administrators frequently observed and provided feedback to each other, developing a "shared language" for teaching strategies and needs,
3. teachers and administrators planned, designed and evaluated teaching materials and practices together.

Fullan (1991:77), also emphasises the quality of working relationships among teachers in relation to a school's effectiveness and its capacity to implement change:

*"Collegiality, open communication, trust, support and help, learning on the job, getting results and job satisfaction and morale are closely related."*

Rosenholtz highlights the importance of teacher collaboration and teacher commitment in her study of "learning-enriched" work environments. She concluded that (1989:73):

*"It is assumed that improvement in teaching is a collective rather than individual enterprise . . . "*

Manefield (1988:102), supports the importance of teacher collegiality in enhancing the effectiveness of a school. He views it as important that:

*". . . teachers together with their principal, also observe and evaluate each other's teaching, they prepare teaching materials together, and by their ongoing talk and collaboration teach each other the practice of teaching."*

More than 80 percent of the respondents to the Effective Schools Project survey rated collaborative decision-making very important in attaining and maintaining the effectiveness of schools (McGaw et al 1992:138).

There is much emphasis placed in the school improvement and effective schools research on the development of collaborative school cultures. (See also Little, 1981: Nias, Southworth and Yeomans, 1989: Rosenholtz, 1989: Fullan, 1991). However, as Fullan (1991:141), points out:

*"Norms or expectations to collaborate are not well developed; organisational structures inhibit involvement; the type, design and scale of particular innovations create far more costs than benefits in the eyes of teachers."*

Organisational reform should positively address this issue and ensure that existing restraints on opportunities for teacher interaction are reduced and not increased.

Overall the research indicates that effective schools are staffed by teachers who work harmoniously with one another as a community of professionals. Analysis of the related literature highlights qualities such as teacher influence and

involvement, teacher efficacy, teacher co-operation and teacher collegiality as important factors to develop in a school.

Effective organisation should encourage the development of these teacher qualities. Changes to school administration and organisation must enhance the ability of schools to produce environments that assist teachers to develop qualities essential for effective student achievement. Any innovation should positively influence these qualities. Any cost-benefit analysis should consider the effects of organisational changes on teacher effectiveness. When considering teachers as inputs into the educational process, measurements must be chosen that reflect those positive qualities highlighted by the research findings. Expenditure should be directed towards more efficient returns by investment in innovations that reflect a more perceptive understanding about the qualities of teachers that relate to the attainment of higher student achievement.

Specifically, in the context of a more detailed analysis of the Edmund Rice College extended hours innovation, the following questions should be examined:

- How has the implementation of the innovation impacted on the level of teacher co-operation within the school?
- How has the extended hours project affected the level of teacher collegiality, harmony and cohesiveness within the school?
- Did the staff of the College feel that they were sufficiently involved in the formation of policy decisions relating to the innovation?

Answers to these questions will indicate whether or not the extended hours innovation has been a positive influence on the ability of the school to achieve its goals and to maintain its values.

### 3. Leadership and School Effectiveness

There is little doubt that the practices of the principal play an important role in shaping the culture of the school (Fullan, 1991; Levine and Lezotte, 1990; Rutherford, 1985). A report on secondary schools in Britain found that the most important single factor affecting the quality of schools was the quality of leadership of the principal. (Department of Education and Science, 1977).

In one paragraph (Carrick 1989:185), the Committee of Review of New South Wales Schools attributes the following qualities to good leaders: supportive, attentive, encouraging, visionary, goal oriented, secure, positive, analytical, challenging, creative, caring, humorous, collegial, balanced and has the ability to recognise excellence, dignity and achievement in others. This description certainly represents a large set of shoes to fill!

Sergiovanni, (1984:6), suggests that there are five hierarchical forces available to school administrators. In order to provide for excellence a school leader should be able to marshall the following resources:

1. *Technical* (derived from sound management techniques): Principals are able to plan, organise, co-ordinate and schedule. They are able to manipulate strategies and situations to ensure optimum effectiveness.
2. *Human* (focuses on harnessing social and interpersonal resources): Principals are able to provide needed support and encourage growth and creativity. They are able to build and maintain morale. They may use participatory decision-making.
3. *Educational* (derived from expert knowledge about matters of schooling): Principals are able to diagnose educational problems and counsel teachers. They can provide supervision and evaluation. They may provide opportunities for inservice and curriculum development.

4. *Symbolic* (comes from directing followers' attention on matters of importance to the school): Principals should tour the school and visit classrooms. They should know their students. They would preside over ceremonies and rituals. They should provide a unified vision for the school.
5. *Cultural* (derived from building a unique school culture): Principals should be able to articulate school purpose and mission. They should bear responsibility for ensuring that new members are socialised. They should assist people to become believers in the ideology of the school. They should establish an environment that promotes personal esteem and motivation.

Other authors attribute similar qualities to effective principals. For example, Jones (1987), categorises the tasks undertaken by principals into four main areas: leading, organising, human relations and external relations.

The leadership role would involve:

- the development of a philosophical framework for school policy,
- co-ordinating and integrating the work of the school,
- acting as a model in terms of educational skills and knowledge.

The organising role is seen as involving:

- planning and evaluating policies and programs,
- establishing effective communication networks,
- defining staff roles and delegating responsibilities.

The area of human relations would include:

- pastoral care of students and staff,
- providing a positive role model
- setting high expectations for quality in teaching and learning
- responsibility for the induction and orientation of new staff,
- providing mechanisms for staff development

Activities involving external relations include:

- developing effective communication channels with parents, the wider community and educational authorities.

Clearly the role of the principal is very complex. Management of a school involves both objective and subjective situations. Principals must deal with a wide spectrum of values, attitudes and behavioural patterns and must have at their disposal a diverse range of techniques, skills and strategies. Leadership styles may vary from the autocratic to the democratic through to the *laissez-faire*.

Definitions of effective leadership vary widely, as do the approaches taken to its study. Various researchers emphasise different qualities of administrative leadership that are essential criteria for effective schools. Mellor and Chapman, (1984), emphasise qualities such as clear leadership, possession of well-formulated objectives, ability to display initiatives, highly supportive of staff and ability to encourage others to accept responsibility.

Caldwell and Misko, (1984), suggest that principals should be responsible to and supportive of the needs of teachers. They should also have an awareness of and an involvement in classroom activities. They should be flexible and be skilled in establishing effective relationships with the extended school community. They should be willing to take risks and should also be concerned with their own professional development. They need to encourage staff involvement in professional development programs.

Austin (1979), also emphasises that effective principals participate strongly in the classroom instructional program. He also suggests that a principal should run the school for a clear purpose rather than from force of habit. Principals should hold high expectations for both teachers and students.

OECD Ministers of Education in 1984, although agreeing on the importance of school-based leadership in affecting the performance of schools, could not reach a

consensus about the ways in which this leadership should be organised and exercised. The education authorities in some countries believed in the need for a strong principal with wide pedagogical and managerial powers while others advocated the practice of collegial direction and management.

There is no doubt, however, about the significance of leadership as an educational input. Recent trends in education have resulted in even more demands on school leadership. There has been a significant increase in the devolution of authority and responsibility to individual schools. This has led to more complex tasks being allocated to school principals. Coupled with the trend towards devolution has been the introduction of more accountability mechanisms. Principals are held more responsible for financial performance, curriculum implementation and public perceptions of school performance.

What criteria should be used when analysing educational leadership as an educational input? Many of the measures discussed that are currently used for measurement of teacher quality have also been used as measures of leadership quality. Educational attainment, age, years of employment and years of administrative responsibility are popularly used as measures of administrative competence or effectiveness.

The impact of the quality of leadership on the effectiveness of schools is very significant. Hence the educational policies effecting leadership will have significant cost in both financial and human terms. Educational decision-makers should have clear indications of these real costs. To facilitate this they should clarify qualities of educational leadership that should be enhanced and include any potential changes to these qualities in their cost analyses.

It is not the focus of this thesis to analyse in great depth the broad spectrum of literature on educational management. It merely aims to highlight some of the factors that should be considered in an analysis of any organisational change. Further insight into administrative behaviour and school effectiveness can be

found in studies by Lieberman (1973), Lipham (1981), the best of ERIC on Educational Management (1981), Kaiser (1985) and Beare et al (1989).

It will be shown later in this study that the quality of the leadership of Edmund Rice College was integral to the success of the extended hours experiment. Specifically :

(i) The ability of the school leaders to plan strategies and to develop and implement the innovation.

(ii) Their effectiveness in communicating the purpose and the need for the innovation to the school staff and initiating their co-operation and support.

(iii) The ability of the leaders to communicate with the extended school community and educational authorities in order to maintain effective and positive relationships.

These ideas will be expanded in Chapter 4 where the process of development and implementation of the innovation will be investigated.

#### 4. The Importance of School Organisation

What is school organisation and does it really make a difference in the level of achievement of students? School organisation refers to the ways educational systems or individual schools attempt to produce their desired outputs. School organisation largely determines the internal educational processes of the school or the school system. Windham (1988:45), describes the analysis of educational process as:

*“. . . a study of the interaction that takes place among inputs under different forms of classroom technologies.”*

It includes the organisational structure, curriculum, technologies and teaching methodologies. It also includes methods of evaluating the achievement of desired outputs.

Paisey (1981:44), suggests that:

*“To be able to fulfil its purpose to discharge its task, to reach its objectives an organisation must have a technology.”*

He defines technology as (1981:45):

*“- the practical application of accumulated knowledge  
- the characteristic way in which the organisation acts upon its workflow.”*

Educational process is the link between students learning achievements and the corresponding inputs that have been utilised to attain these learning outcomes. The internal efficiency of an individual school or an educational system refers to the relationship between inputs and outputs. Coombs and Hallak (1987:10), suggest that improvements to an educational system's internal efficiency fall into three main categories depending upon the degree of change required. These are:

1. Changing the amounts, quality or mix of inputs or by using existing inputs more intensively, e.g. the Edmund Rice extended hours innovation or reducing class sizes by employing more teachers.
2. Introducing completely new technologies, e.g. computer assisted learning.
3. Introducing radical new teaching-learning systems.

It is an analysis of a particular aspect of the internal process of Edmund Rice College that is the heart of this study. The questions being asked refer to how the extended hours innovation alters the internal process of the school in relation to the desired outputs of the College. The aim of the innovation was, in general terms, to increase the internal efficiency of the College with a view to increasing the quality of its outputs in the longer term.

Chubb and Moe (1990:123), have no doubt that student achievement is dependent on school organisation. The results of their research led them to express student achievement as a function of five factors. Table 2.4 outlines these factors and lists the major components of each measure. To determine the separate effects of the various influences on student achievement, Chubb and Moe estimated a series of linear regression models. The coefficients of the regression model provided them with estimates of the effects of each variable on the dependent variable of student achievement. They then used these estimates to establish whether school organisation affected student achievement independently of the other factors in their model such as student ability and family background.

The results of Chubb and Moe's work highlight the fact that student ability is not the only significant influence on achievement. They found that, although this factor was the dominant influence determining student achievement, not far behind it in importance is the organisation of the school and the family background

of the student. These two factors, according to their model, are equal in the magnitude of their influence. Their findings (1990:129), were quite clear:

*"The results suggest not only that a well-organised school can make a meaningful difference for student achievement, regardless of the ability and background of its students, but that the influence of the school, through its organisation, is comparable in size to the influence of each student's own family."*

It must be pointed out that Chubb and Moe are not without their critics. In fact, some reviewers are highly critical of Chubb and Moe's methodology. Brown (1991:358) argues:

*"The temptation for this reviewer to engage in methodological and statistical criticism is almost overwhelming . . . Suffice it to say that the statistical analysis sacrifices scholarly method for neatness and polemical advantage. Chubb and Moe's pooling of variables to create indices for inclusion in a regression, which are then given fancy names such as 'organisation', has been rendered obsolete by the availability of cheap, high-powered computing equipment. The indices created by the authors tend to obfuscate what is going on at the micro level, obscure the meaning of what is really being estimated, and seriously impair the usefulness of the results."*

Other critics, such as Burlingame, (1991:586), and Rosenberg (1991:64), also attack the free-market solutions proposed by Chubb and Moe.

A careful analysis of the criticisms levelled at Chubb and Moe reveals that they are mainly directed at their conclusion that a free-market approach to educational organisation is the most efficient method of providing educational

opportunities for school students. Their belief in this type of solution has influenced their final regression model. Although the final model may be questionable, none of the critics mentioned questioned the validity of including the many and complex variables relating to school organisation for consideration.

It is these variables that have been highlighted in this study of the Edmund Rice College experiment. The relative importance of each variable to a particular school's effectiveness must be considered in the light of that school's unique perspective. It is from this standpoint that this researcher feels the real value of Chubb and Moe's research lies.

Research evidence strongly supports the hypothesis that students can really gain a great deal from attending an effectively organised school. This chapter has outlined the factors that current research reveals to have significant impact on the effectiveness of a school. Any innovation that is to be evaluated should be assessed in the context of this body of research. In particular, the extended hours innovation adopted by Edmund Rice College should contribute positively to those factors that interact to establish the effectiveness of the school.

Table 2.4

Factors Affecting Student Achievement

Variable	Major Features of Variable
Dependent Variable	
• Total gain in student achievement	gain scores in reading, writing, vocabulary, and science
Independent Variable	
• Student’s academic ability	scores in reading, writing, vocabulary, math and science
• Family background of student	family income, parents’ education, father’s occupation, home learning tools
• School financial situation	per pupil school and district expenditure, student-teacher ratio
• School organisation	graduation requirements, priority of academic excellence, principal’s motivation, principal’s teaching esteem, teacher professionalism, staff harmony, teacher co-operation, % of students in academic track, homework, classroom administrative routine, disciplinary fairness and effectiveness

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Source: Chubb and Moe, (1990:124).

## Outputs of Education

Coombs and Hallak (1987:7), define these as:

*“all the acquired learning, skills, insights, attitudes, styles of thinking - all the developed aptitudes and capabilities that students carry away from the educational system beyond what they brought to it initially.”*

The New South Wales Education Reform Act, 1990 (Section 14(30)) requires the Board of Studies to indicate:

*“desired outcomes in terms of knowledge and skills that should be acquired by children at various levels of achievement by the end of specified stages in the courses”*  
(cited Curriculum Outcomes, Board of Studies NSW, 1991)

Attempts to quantify educational outcomes include the use of measures such as:

- public examination results
- school or course retention rates
- competency skills tests
- progression or attrition rates

The above represent measures of attainment or achievement. However, student attitudes and behaviours are commonly viewed by the public, and hence governments, as indicators of school effectiveness. Due to the difficulty of quantifying these particular outcomes, they are not used as frequently or as confidently as are measures of examination achievement. This definition implies that there is a link between an educational system's objectives and the measurement of the system's outputs.

Any society that is prepared to commit a significant proportion of its resources to developing an education system, would logically expect to accrue some long term benefit. Coombs and Hallak (1987:8), list some of the possible societal benefits:

*“Individuals, for example, may benefit by getting better jobs and higher lifetime earnings, by having more satisfying family lives, by adding richer cultural and civic dimensions to their existence, and by a greater participation in the surrounding world. The society at large may benefit from higher production and better living standards, from an enlarged supply of effective leadership at every level, and from the enrichment of its culture through the release of greater creativity in more people . . .”*

The Scott Report (1990:226), suggests that education contributes in eight vital areas:

- basic knowledge
- intellectual and manual skills
- powers of reason and criticism
- the development of values, attitudes and motivation
- powers of creativity and innovation
- a sense of social responsibility
- understanding of modern and future worlds

As this report continues:

*“These attributes contribute collectively to a standard of living both for the individual and for the nation, and as such are investments in each.”*

The educational investment has in the past been proportionately skewed towards the younger members of society, indicating that it is an investment for the future.

Assessing ultimate benefits of educational practices is extremely difficult. The time frame is non-specific. There is no way to definitely isolate the benefits accrued through formal educational experiences from those gained through other informal learning experiences. The fact that these long term benefits cannot be specifically quantified does not lessen their importance when considering the overall value of a particular aspect of education.

## Overview

This review of a selection of the relevant literature has revealed that the concept of school effectiveness is very complex. As Brighouse (1990:141), points out:

*“Some of the best literature on the topic is illuminating and positive, descriptive and relies little on quantified evidence and research, preferring instead a subjective, impressionistic view of quality.”*

He argues, however, that it is none the worse for this.

In its report, *Schools and Quality*, (OECD 1989:141), the researchers, drawing from a substantial body of recent research, produced two major findings that add weight to Chubb and Moe’s conclusion that the influence of a well-organised school can make a real difference for student achievement. These two findings were:

1. that student motivation and achievement are profoundly affected by the distinctive culture or ethos that is found in each school,
2. that schools in which students perform have essentially the same characteristics.

These characteristics, which show great similarity to many of those revealed in this review of recent educational literature, provide not a rigid theory or research design, but valuable pointers to the general pursuit of school effectiveness and improvement. Using the characteristics outlined in the OECD report on schools and quality (1989:141), the following questions may be formulated that may assist educational administrators in assessing innovations such as that initiated at Edmund Rice College.

1. Has the innovation been implemented in an atmosphere of clearly identifiable goals?
2. Has the innovation utilised collaborative planning, shared decision-making and collegial work in a frame of experimentation and evaluation?
3. Has the improvement been initiated by positive leadership and will that leadership be able to maintain the progress?
4. How has the innovation affected staff stability?
5. Is there a strategy for continuing staff development related to the effect the innovation may have on the school's pedagogical or organisational needs?
6. Does the innovation enhance the available curriculum?
7. Does the innovation involve a high level of involvement and support from parents?
8. Is the innovation consistent with the pursuit of school-wide values?
9. Does the innovation allow for maximum use of learning time?

10. Does the innovation have the active and substantial support of the responsible educational authorities?

The concept of effectiveness is so widely interpreted as to almost defy exact analysis. Many variables have been introduced in this literature review as potential indicators of school effectiveness. These characteristics are inseparable from each other continuously overlapping and interacting. Although not adopting any rigid framework of analysis, the following examination of the Edmund Rice College extended hours experiment will be presented with many of the above factors in mind.

This chapter has offered an overview of relevant, current educational research that should be considered by individual school administrators and their teaching staff when investigating organisational change. The school community should utilise this knowledge in conjunction with their local knowledge and experience in order to make informed decisions about any innovations being considered.

This chapter has also established that there is a definite place for more flexible and innovative use of school facilities. The Edmund Rice College extended hours innovation is worthy of further detailed analysis to ascertain whether it is cost-efficient and thus constitutes a useful planning alternative for educational administrators.

In the following chapters the Edmund Rice College innovation will be examined in further detail. The factors emphasised in the preceding literature review will provide the background for this more detailed analysis.

# Chapter 3

## The Pressures Experienced by the College Leading to a Consideration of an Extension of Operating Hours.

### A Brief History of Edmund Rice College

Edmund Rice College began its history as Christian Brothers, Wollongong. The original site of the school was in Crown Lane, a small street just off the main thoroughfare of Wollongong. In 1920 the local Parish Priest had approached the Provincial leader of the Christian Brothers community of New South Wales and asked for Brothers to be sent to Wollongong to establish a Catholic boys school. This request was granted but it was not until January 1926 that the school commenced. It began with four teachers, all Christian Brothers, and 105 pupils.

The boys initially enrolled at the school came from a predominantly working class environment. In 1926 there were 15 coal mines within a 20 mile radius of Wollongong. Initially 40 per cent of parents of boys enrolled at the school listed their occupations as miners (Ireland, 1986).

The school was expected to become a Catholic educational centre for the whole of Wollongong. Students came from the coastal region spanning approximately 25 km north and 25 km south of the school site. The parishioners were told that the courses of study would include both secondary and primary education. They were also informed that:

*"The school fees will be in accordance with the capacity of the boy to pay. If the boy cannot afford a fee, no fee will be charged."*

(From the *Illawarra Mercury*, January, 15th, 1926)

This policy of the Christian Brothers' schools indicated the heavy financial burden the Brothers and the Catholic parishes in Australia were prepared to bear. Many State High Schools and Primary Schools were at the time charging fees.

Catholic boys in Wollongong were now given potential access to secondary education regardless of social class. This factor also explains the great concern for fund raising from the conception of the establishment of the Catholic boys' school and throughout its existence. Without generous support from the local parish, such a fees policy would almost certainly be impossible to maintain. Thus, numerous fund raising strategies became integral parts of the financial administration of Catholic boys' education in Wollongong.

A major problem faced by the school in its early years of development was coping with the continually increasing demand for its services. The school's student population grew from 105 on its opening day to 340 ten years later. This required the undertaking of a substantial building program. Five new classrooms, including a new science room and a technical room, were constructed. The need for the new specialist teaching rooms was a response to pressures from the external community. The local steelworks was providing a significant source of employment for boys leaving the school. Also the community was later to respond to the demands of war. Thus practical subjects such as metalwork, woodwork, technical drawing and physics were introduced into the school's teaching program. The commencement of these subjects required a significant financial outlay to equip the rooms adequately.

### **The Post-War Years**

The late 1940s and early 1950s saw a worsening of the accommodation problem at the College. Non-Catholics and juniors from outside the immediate parish were not admitted to the school. Because of the rise in enrolments and the unavailability of extra Brothers, a secular teacher was employed for the first time in the school's history.

In 1949 the enrolment reached the figure of 407 despite efforts to keep the numbers down. Two additional teachers were required but none suitable to the College administration could be found. The Principal was forced to suspend the teaching of technical work in an effort to solve the staff problem. Despite increases in the number of teaching Brothers at the school, by 1950 many boys were unable to gain admission to the College. The Christian Brothers College was forced to become

academically selective in order to reduce its intake into the secondary classes. It is significant to note that, despite Christian Brother policy, there were now Catholic boys in the region who were excluded from Catholic secondary education.

The situation led the principal of the time to seek financial support from the Provincial Council of the Christian Brothers in order to secure a new property on which to build a new school that would have the capacity to meet the future needs of the local Catholic community. This support was not forthcoming.

In 1952 the school adopted the temporary solution of eliminating their primary classes one by one so that eventually the Brothers would have no primary school boys under their care in Wollongong. This was a rare situation compared with other Christian Brother schools in Australia at the time. It was arranged that local Convent schools would absorb the usual grade 3 intake of the College as from 1953. In 1956 the Christian Brothers College in Wollongong became exclusively a secondary school.

The gradual elimination of the primary section slowed the rate of growth of the College. It did not, however, present a long term solution. Metalwork was dropped from the school's teaching program with the Brothers restricting themselves to teaching technical drawing only in the range of possible technical subjects. The accommodation restrictions had led to a definite shift in curricula emphasis.

Clearly, metalwork was previously considered a very vital subject in the College. The Principal's report in 1944 had emphasised this point:

*"A red letter day in our history was Sunday 27th August for on that day was blessed and opened the technical department of the school. For many years it was felt that instruction in metalwork was a prime necessity in this district."*

(From the annual Principal's Report, 1944)

(It should be noted that the largest employer of male school leavers in Wollongong was the local steel industry. The dominance of this industry as a source of employment for the youth of the region influenced the demand for schools in the area to offer technical courses in their curriculum.)

Yet, little more than a decade later the College dropped this subject mainly because of accommodation problems. There is no obvious evidence to suggest that metalwork was no longer an important subject in the district.

Twice during 1957 the Bishop was informed of an approaching crisis of accommodation. The Brothers were acutely aware of the expected increase in numbers of boys from the local Convent primary schools seeking enrolment at the College in the near future. The increase was due to post-war migration from southern Europe to the region. A large number of these migrants were Catholic.

The Brothers estimated that there was an approximate potential enrolment for first year classes in 1958 of 230 boys. Even allowing for a drift of forty boys for various reasons to the two local State Secondary Schools, the Brothers estimated that there would be 190 pupils seeking admission to the College. In 1957 the Principal of the College wrote:

*"Our present capacity in First Year is 130 and this means that at least sixty (of the normally better class Catholics) would have to be refused. I might add that, according to additional figures supplied to me . . . the position will be considerably worse by 1959."*

(From a letter to Bishop McCabe, Sunday 7th July, 1957, from the College Principal Rev. Br. W. L. Davy.)

(The reference to "better class" Catholics refers in this case to the observance of the rules of the faith rather than socio-economic standing.)

Two methods were jointly adopted to restrict numbers in order to gain some breathing space. Firstly, only those boys who passed an entrance exam conducted by the school were considered for enrolment. Secondly, the Parish Priests were asked to comment on the family background and the general suitability of the boys for a Catholic College,

*“ . . . to cut our spiritual losses, so to speak, and to admit and concentrate only on those who came from known good Catholic homes, would be a good plan under the present circumstances. . . ”*

(From the same letter quoted above)

All the boys seeking entry into First Year in 1958 had character notes supplied by the Priests and Sisters of the Convent Schools. The Christian Brothers' School had again become a selective school.

Whatever enrolment procedures the Brothers adopted in Wollongong, however, could only amount to superficial attacks on the real problem - a serious lack of space. The percentage of boys continuing their schooling after the Intermediate Examination level began to show a sharp upward trend. The Brothers estimated that they would require in the next three years four new classrooms, two science rooms, a technical drawing room and more toilets.

In order to cope with the increase in the student population more teaching Brothers were also required. The Monastery for the Brothers was built for a community of four. In 1957 there were eight Brothers in residence. The Brothers had exhausted all temporary measures to cope with the overcrowding in the Monastery. They estimated that in order to cope with the extra staff they would need four more bedrooms, a larger community room, a chapel, a second housekeeper's room and further toilets.

The Brothers were well aware that school fees would not be enough for any new building program. A number of different fund raising strategies were

implemented. The Catholic public of Wollongong were invited to subscribe loans to the College at Savings Bank interest rates. The majority of Parishes in the Illawarra agreed to pay a ten pound subsidy per year per boy from each parish attending the College.

### **A New Campus - Continued Growth**

In 1959, the Principal was able to announce to parents the future plans of the College. Additions to the Monastery were to be undertaken to provide for the extra religious and lay staff required by the growing school. Negotiations were under way for the purchase of land at West Wollongong upon which the College planned to build a new school. The hope was expressed that the boys would begin a transfer to the new building in 1961. The Principal's commitment to this plan was evident in the fact that he had already agreed to enrol an additional first year class for 1960. These plans were a significant financial burden for the Brothers. Committing themselves to an extensive building program also committed them to a heavy debt.

1962 marked the 36th year of the Christian Brothers school in Wollongong. It also was a year of significant change for Catholic Boys' Education in the Illawarra. Firstly, the Marist Fathers came into the Wollongong Diocese to share with the Christian Brothers the task of catering for the secondary education of the boys. The establishment of St. Paul's, a Catholic Secondary Boys' School in the northern suburbs of Wollongong, relieved a little of the pressure for the Brothers' College. In 1961 the entrance examination was not held to determine the next year's intake. Most of those who applied were enrolled.

However, of much more significance to the Brothers' College was the opening of the new senior section of the College at West Wollongong in 1962. The name of the Christian Brothers' College was officially changed to Edmund Rice College at this time in honour of the founder of the Christian Brothers' Order. The students in fifth, fourth and third years were all transferred to the new West Wollongong site. The remaining classes were all housed in much less cramped conditions at the old Crown Lane School.

The elation accompanying the establishment of the new College at West Wollongong soon waned as many practical problems made themselves evident. Finances were at the forefront of these worries. Despite very successful fund raising activities by the Brothers and the parents, the College was finding it difficult to meet all its financial commitments incurred during its recent building projects.

Causing the Principal equal concern was the imminent introduction of the new education scheme to be introduced to all schools in New South Wales. The existing five year secondary schooling of students would be replaced by a new six year program. The concept of one teacher per class for all subjects was to be replaced by a system of specialist subject teachers and parallel programming of classes. The current facilities of the College would be unable to cope with this demand. Again the Brothers were faced with a fundamental choice - either restrict entry into the College or undertake the burden of a new building program. The choice was made and a significant new building program was commenced at the West Wollongong site and completed in 1966.

In 1970, a new funding arrangement for private schools was initiated by the Commonwealth Government. For the first time the school received a Commonwealth subsidy of \$50 per student. At first the Principal used most of this grant to pay the salaries of the extra lay staff employed by the College which had increased significantly since 1968. By 1970 there were more lay teachers than Christian Brothers teaching at the school. This fact in itself indicated an increased financial burden on the College as it now had to meet an ever increasing wages bill.

As well as the recurrent grant of \$50 per student, the College also became eligible for capital grants for specific building projects. These grants enabled the school to finance the construction of a new science and library building. These buildings were completed in 1974. This new era in funding for private schools saw Australian Governments gradually assuming the primary financial responsibility for the education of all students in the country not simply those in government institutions.

1974 was the last year of the College's divided existence between the original site and the new West Wollongong school. At the beginning of this year all students were taught at the new Edmund Rice College.

The final move into the new school did not signal an end to the growth of the College. Table 3.1 indicates that the student population continued to grow significantly throughout the remainder of the 1970s and early 1980s.

By 1985 the school accommodated 860 boys with a large waiting list. More than 100 boys were unable to gain acceptance for their application to enter first year at the College. There had been a large increase particularly in the number of boys completing a full six years of secondary education. In 1984, 96 boys entered Year 11. This figure represented 57 per cent of the original Year 7 class of 168 boys. The growth in the senior class is evident when compared to that in the 1930s where only an average of 18 per cent of first year boys went on to complete the final examination year.

To cope with the continued growth in student enrolment the teaching staff of the College also increased rapidly. In 1985 there were 59 members of the teaching staff. Of these only seven teachers were Christian Brothers, the remaining 52 being lay teachers. Since 1970 there had been an increase in staff numbers of nearly 150 per cent. Like his predecessors, the Principal was forced to pursue a heavy building program. In 1985 a new Administration Building was constructed. The \$800,000 building, partly funded by a Federal Government grant, was built to supply more adequate accommodation for the staff. Other projects that followed during the remainder of this decade included a multi-purpose hall, change rooms and a storeroom for physical education and a new double storey classroom block housing general purpose classrooms and two science laboratories.

It is clear from the brief history of Edmund Rice College outlined above that the school had for much of its existence been caught in the costly spiral of supply and demand. Expensive building programs and associated debt burdens had proven to be

ineffective in providing long term solutions for the school's accommodation problems.

By the end of 1989 there had developed specific pressures that led the College Administration to review the school's future direction and to begin to look for alternative solutions to a series of problems. These pressures will be analysed in detail below. Initially, the extension of hours of operation was intended to provide a framework that would allow the College to deal with a number of these specific problems.

Table 3.1

Enrolment Figures for Edmund Rice College (post-war years)

<u>Year</u>	<u>Number of Boys</u>	<u>Growth Rate</u>
1961	538	
1962	560	
1963	630	
1964	564	
1965	609	
1966	562	4.5%
1967	607	
1968	642	
1969	678	
1970	690	
1971	666	18.5%
1972	668	
1973	651	
1974	647	
1975	638	
1976	671	0.8%
1977	692	
1978	699	
1979	712	
1980	735	
1981	762	13.6%
1982	755	
1983	826	
1984	848	
1985	857	
1986	877	15.1%
1987	893	
1988	905	
1989	904	
1990	926	
1991	995	13.5%

Figures obtained from Ireland (1986), and Edmund Rice College records.

**1. Problem: How could the College finance a substantial building program in a way that would minimise the burden on the school community?**

Edmund Rice College relies heavily on substantial government funding. It is currently funded as a Category 11 school, the second highest funding allocation for a private school in NSW. Government grants cover teaching and non-teaching salary costs. Parent fees provide the finance for non-salary school operating expenses and loan repayments.

For a number of years it had been evident to the College Administration that a substantial building program would have to be commenced. There were a number of pressing reasons for this decision.

- (a) Three pre-fabricated, temporary classrooms built in 1971 were in a greatly deteriorated state and would have to be replaced as a matter of urgency. These rooms had been deemed structurally unsafe by Council building inspectors. They were built on dubious foundations bordering on a gully that was increasingly subject to erosion. These rooms also offered very cramped conditions for the Year 7 classes that occupied them (these classes contained 35 to 36 students). In addition to these three rooms, seven other rooms had also been marked for demolition by Council inspectors due to rising damp and cracked foundations. This made a total of ten existing rooms that had to be replaced as a matter of urgency.
- (b) There had been a strong and persistent demand from students and parents for the College to increase the number and variety of Industrial Technology classes being taught. As outlined earlier in this study, the provision of facilities that would allow adequate instruction in the technical subjects had been a problem for the College Administration throughout its history.

Student subject selection processes had shown each year that the following additional classes would be filled if the College had the capacity to offer them:

- (i) an additional 2 woodwork classes,
- (ii) an additional 2 technical drawing classes,
- (iii) the introduction of Engineering Science in Years 11 and 12.

The demand for extra woodwork and technical drawing classes was not new and had existed for a number of years. It was a function of student pressures driven largely by the industrial, working, class nature of the local community and peer pressure from an all male student population. The overall situation was becoming reminiscent of conditions faced by the school in the 1950s when metalwork was dropped from the College curriculum through lack of facilities.

The demand for the introduction of Engineering Science in Years 11 and 12 stemmed from the growth in overall enrolment in these years. The increased student population was drawn from the middle and lower academic ranges in Year 10. These boys were being pressured into returning to Years 11 and 12 by specific Government policy and by growing regional youth unemployment. Apprenticeships and traineeships were unattainable for many of these boys and the College was under increasing pressure to fill the gap and offer a variety of forms of technical training. Woodwork, technical drawing and automotive technology had already been included in the range of subjects offered to students at the College in Years 11 and 12.

An analysis of Table 3.2 indicates the availability of specialist Industrial Technology classrooms at Edmund Rice College in 1990. The table also indicates the actual percentage occupancy per cycle of the timetable for each of these rooms. From this table it is clear that the College could not

fully house existing classes in the appropriate rooms. There was no obvious capacity for additional classes, particularly in woodwork.

For any specialist classrooms, timetabling experience at the College had shown that approximately 85 per cent occupancy denoted full utilisation of the resource within the constraints of the often conflicting demands on the timetable. Two factors in particular restrict the usage of a specialist room. The first is the desire of the College Administration to offer students a wide range of possible subject combinations. This policy represents an effort to cater for the individual needs and interests of the students, a fundamental aim of the school. This factor restricts the timetable designer in programming what subjects can run at what times.

The second restriction is encountered when the usage of the various specialist rooms is combined in the timetable. Attempts to utilise a room for more than 85 per cent of the available time places severe restrictions on the timetable. It was found that it was possible to exceed this figure in particular instances but an analysis of occupancy rates of other specialist rooms at the College (see Table 3.2) indicate that usage of the Drawing Room, Woodwork Room, Metalwork Room, Music Rooms and Science Laboratories had reached or exceeded this upper limit. The combination of these factors preclude all the specialist rooms from being occupied for 100 per cent of the available time.



- (c) Visual Arts classes were being taught in three rooms at the College. Two of these rooms were old GLA's (General Learning Areas are non-specific classrooms). They were very inappropriate for the needs of the subject. They were small, old and lacked adequate storage space. The interest in Visual Arts at the College had been growing and it was anticipated that the current demand at least would be sustained. Two additional rooms designed and furnished specifically to meet the needs of the subject of Visual Arts were considered to be a necessity.
- (d) The College Library was built to cater for a student population of only 700. Table 3.3 indicates that by 1990 the student population had exceeded this figure by 32 per cent. In particular, the growth of student numbers in Years 11 and 12 was placing a heavy burden on this resource. Research facilities and study areas demanded by senior courses were considered inadequate and in many cases, at odds with the usage made of the library by the junior classes.
- (e) The College had no gymnasium facility. Most equivalent Government High Schools in the area had such a facility or a large hall that could be utilised for such a purpose.

Table 3.3

Enrolment Figures for Edmund Rice College

(Calendar Year vs. academic year grouping)

Acad. |                                      Calendar    Year (19\_\_)

Year |

	91	90	89	88	87	86	85	84	83	82	81	80
7	205	177	173	175	175	174	175	170	170	144	171	169
8	192	178	174	174	178	179	172	175	157	175	168	153
9	190	172	182	181	176	168	172	160	183	165	160	156
10	166	167	178	174	169	172	156	173	166	152	152	143
11	124	140	119	106	121	101	110	105	83	74	58	64
12	118	92	78	95	74	83	72	65	67	45	53	50
Total	995	926	904	905	893	877	857	848	826	755	762	735

(The above figures were obtained from an analysis of College enrolment records)

- (f) Computing facilities were experiencing both internal and external pressures to expand. In 1990 one computing room was servicing the needs of the College. New courses were available for Years 11 and 12 and also Years 9 and 10. Student and parent interest clearly existed, ensuring that any additional classes that could be offered would be filled. Growth in demand for terminal time was also emanating from other subject departments. Individual syllabi were being altered to include, where appropriate, computer applications and simulations. These new courses and syllabus modifications were reflecting community pressure for greater exposure for students at school to computer technology. The College Administration estimated that an additional room would be required to meet the future requirements of the students.

It was clear to the College Administration that the school must undertake an immediate building program. It was proposed that this program should consist of three stages, at an estimated cost of two million dollars. The breakdown of costs for each Stage is shown below:

Stage 1	\$1.1 million
Stage II	\$0.4 million
<u>Stage III</u>	<u>\$0.5 million</u>
Total	\$2.0 million

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The net result of Stage I of the building program would be:

- (a) the provision of 3 new art rooms and storage facilities,
- (b) the provision of 1 new woodwork room,
- (c) the conversion of 1 old art room into a technics room,
- (d) the replacement of the four pre-fabricated temporary classrooms,
- (e) the replacement of four existing GLA's with 5 new ones.

The demolition of the additional GLA's was necessary in order to maximise the use of the proposed building site. Single storey classroom blocks were to be replaced with double storey buildings more effectively utilising the space available.

Stage II was designed to demolish an existing block of 4 GLA's and replace it with a double storey block housing an additional computer room, music room, and junior library as well as replacement GLA's. Stage III was the proposed construction of a school gymnasium.

There were two avenues available to the College for Government financial assistance. These were:

- (a) The provision of a Commonwealth grant. Commonwealth grants are made available to private schools through regional committees. Submissions for grants are considered and placed on a priority list. Those schools high on the list receive whatever funds are available. It was evident to the College Administration that other school projects had been given a higher priority than that proposed by Edmund Rice College.

The Principal of the College was a member of a committee whose function was to decide which projects in the Diocese were to be allocated the available government grants. There were other projects, in particular the construction of a new Catholic secondary school in another area, that took priority over the Edmund Rice proposal. If they were prepared to delay the proposed building project for at least a year there was some prospect of a relatively small grant. If the College was to undertake to commence Stage I of the building program during 1990 as proposed then it would have to do so without any Commonwealth grant.

- (b) The College was able to apply to the NSW Government for an interest subsidy. Loans raised for the purchase of buildings for school purposes are eligible for interest subsidy. The regulations set down by the Government state that "Buildings" in this context refers to either:

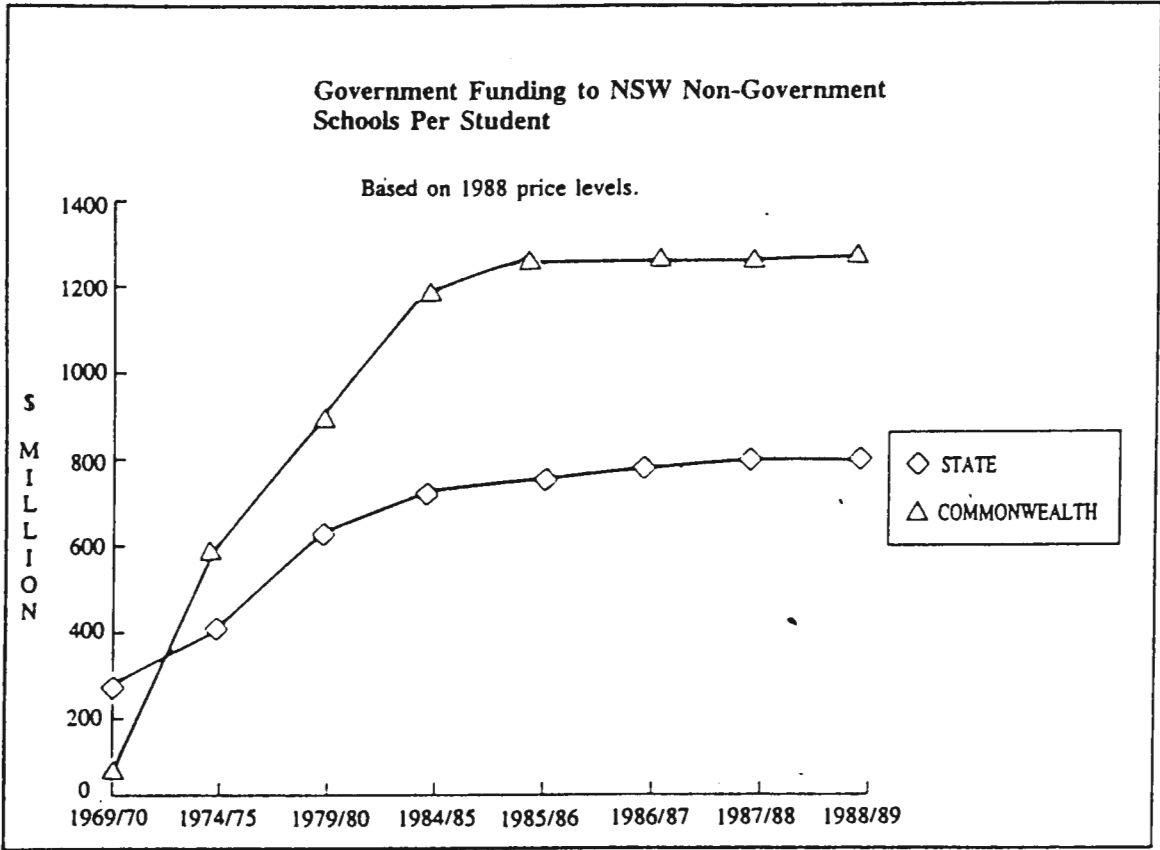
1. new capital developments undertaken to provide teaching facilities for increased student enrolment,
2. refurbishment of existing structures where the aim of the project is to provide;
  - (i) acceptable and adequate teaching spaces in terms of the NSW Government Building Code and/or,
  - (ii) refurbishment is seen as the most economical solution to providing school accommodation of a standard necessary for continued registration in terms of the Public Instruction and Education Act.

Interest subsidy was granted for the proposed Stage I of the building program. This is an indication that, in comparison with standards set down by the State Government, the building program proposed by Edmund Rice College represented a legitimate need not an extravagance.

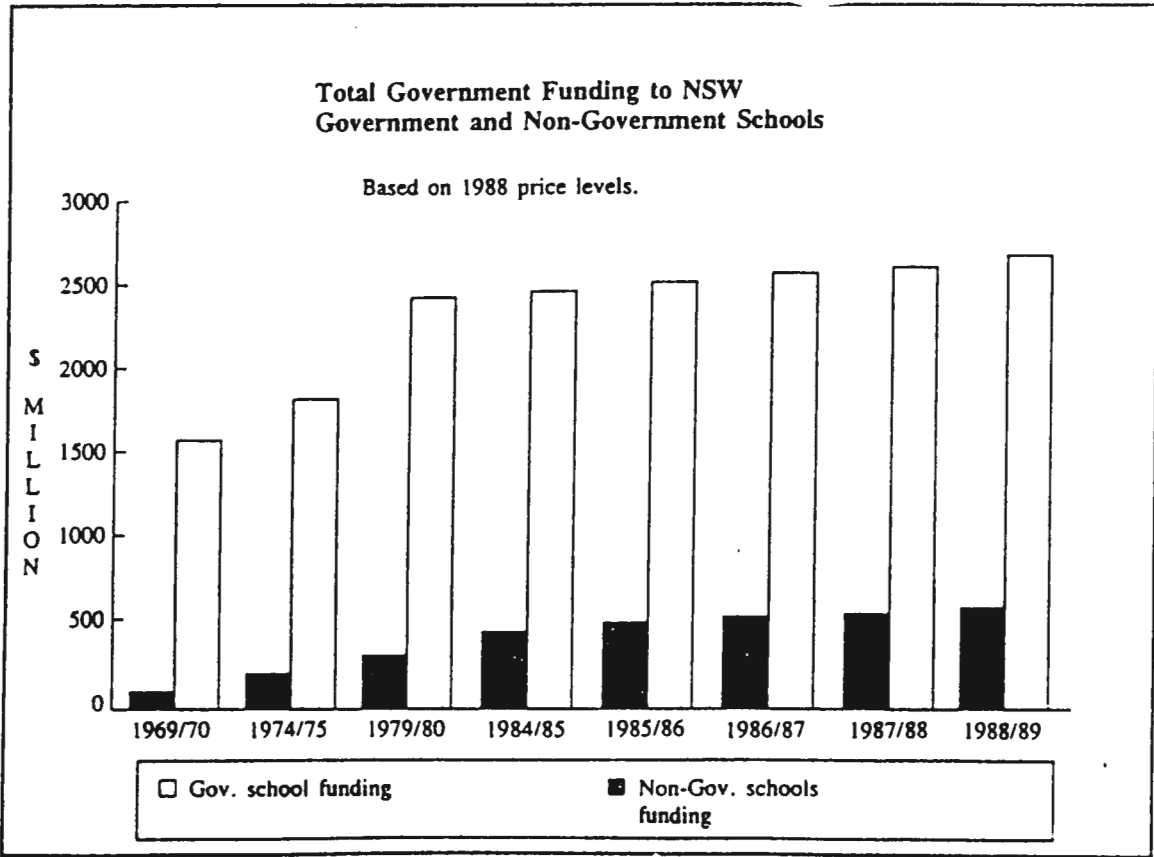
The graphs below indicate that government funding to NSW non-Government schools had plateaued and indications were that no immediate increase was likely in the current economic climate. Thus there was to be no immediate Commonwealth funding for the building program, with the only promised financial relief coming from Government Interest Subsidies. The cost of this project would have to be met totally by the College community through loans from the Catholic Development Fund and would have to be repaid by funds raised through fee income. The increased demand on revenue raised from fees could be met in one of two ways. The College Administration could either significantly raise the fees paid by parents or increase the fee base by increasing the number of students at the College.

Figure 3.1

Government Funding to NSW Non-Government Schools



Source: NSW Department of Education.



Source: NSW Department of Education.

The anticipated fee structure for 1991 is shown below.

**Compulsory School Fees**

Years 7 - 10	\$180 per term (4 terms)
Years 11	\$240 per term (4 terms)
Year 12	\$240 per term (3 terms)
20% reduction in fees if 2 sons at the College	
25% reduction in fees if 3 or more sons at the College	
Annual Book Hire fee - \$45 per student	

The College Administration claimed that they had carefully analysed their anticipated fee structure and concluded that the additional loan repayments would require the following increase in fees:

Stage I	\$100 per year per student
Stage II	\$30 per year per student

Thus Stage I of the building program would impose a fee increase of 14 per cent for the majority of parents with students enrolled at the College. Overall, Stages I and II would add an extra 18 per cent to the fees paid by these parents. The first option to increase fees to cover the cost of addition loan repayments was considered undesirable.

Families in the Illawarra were already experiencing significant financial constraints in the harsh economic climate. Unemployment in the region was growing and the general cost of living was still rising. Many families of the College community were experiencing financial uncertainty which was placing great pressure on the family unit. The College clearly did not wish to add to their problems by significantly increasing the financial burden of educating their sons. The Christian ideals of the College greatly influenced any economic decisions that might add hardship to its community.

Also, as stated earlier, it is a clear tenet of the Christian Brothers' Order, who are the trustees of the College, that no student would be denied access to the school because of an inability to pay fees.

There was also a definite concern expressed by the College Administration that any fee increase of the order contemplated would seriously jeopardise the College's current level of Government funding. The genuine worry was that the Category 11 level of funding that the school was receiving might be downgraded in the event of any fee increase of the order of 14 to 18 per cent. A careful review of the Category requirements convinced the College Administration that such a reduction in funding arrangements with the Government was a distinct likelihood since the dominant factor in the funding category calculation was income received by the College. Overall, fee increases of the order required to fund the building program posed both moral and financial obstacles for the College community.

The second option of increasing student numbers would also set the College a real dilemma. An analysis of Table 3.2 indicates that an increase in student population could only be accommodated under the existing system by increasing plant capacity in areas such as science laboratories and music rooms. The GLA occupancy rate of 80 per cent, as shown in Table 3.3, also indicates that the capacity to cater for extra classes in this area was greatly limited.

The option of increasing individual class sizes without increasing the number of classes offered was also rejected. The reason for the lack of enthusiasm for this option was that the College Administration viewed the size of existing classes as being too large. For example, Science classes in Year 7 were already operating with 35 to 36 students per class. The laboratories were designed specifically for classes of 32. The average student number in a Year 7 class was 35, with Technics, Music and Art running half-classes.

For comparison, the current policy for New South Wales government schools was that no class should exceed 30 students in Years K to 10 and in Years 11 and 12 no

class need exceed 25 students (Scott, 1990:93). Although this was a general rule and some flexibility was permitted in the system to allow principals to cater for individual local needs, the desired class size in a government secondary school was clearly significantly smaller than the average class size at Edmund Rice College.

The topic of optimum class size is the subject of much debate. The Karmel Committee (1985:121), reviewing the quality of education in Australia in 1985 arrived at the following conclusion:

*"Research evidence is ambiguous . . . The weight of studies suggests that, all other things being equal, a reduction in class size from 40 to 30 students would have relatively little effect on learning outcomes but a reduction to below 20 students might have a major impact."*

Hanushek (1986:1161), reports that of the 112 studies of the effects of class size on the production and efficiency of schools, only 23 found class size to be statistically significant. Of these only 9 showed a statistically significant relationship of the expected positive sign. Fourteen actually found a negative relationship. An additional 89 studies indicated no significance at the 5% level.

The Carrick Committee of Review of New South Wales Schools reported the estimate of the Department of Education that the total cost of reducing class size by one student in New South Wales government schools would be \$53.1 million. This Committee also concluded that the effect of such a reduction in class sizes would have debatable effects on student learning outcomes. The Carrick Committee cited various research projects over the last 20 years to support their findings (for example, Levin, Glass and Meister, 1984; Campbell and Robinson, 1983; Tainton, 1983).

Regardless of the lack of empirical support, it is without doubt the perception of the majority of classroom teachers that reductions in class sizes are highly desirable (For example see McGaw et al 1992:26). Teachers view larger classes as

significantly increasing their workloads. Larger classes mean a greater marking load, less opportunity for individual student/teacher interaction, more potential for in-class discipline problems and less opportunity for innovation. There is also little doubt that much of the community shares this perception.

Teachers at Edmund Rice College certainly held the view that many of their classes were too large. The topic had been discussed both formally and informally on numerous occasions particularly in relation to student achievement and behaviour. It had been a specific long term aim of the College Administration to reduce class sizes in the College, an aim well supported by the teaching staff. Thus a significant increase in student numbers under the existing pattern of resource usage was rejected because it was considered to be inconsistent with the goals of the College.

2. **Problem:** How could the College even out the “peak-load” demand on its resources while at the same time place itself in a better position to cope with increasing enrolment pressures?

Apart from the general economic climate, it had been of concern for some time that expensive buildings and equipment in schools are significantly under utilised. Effectively, the College facilities were in use only between 8.30 a.m. and 3.30 p.m., 5 days per week and for less than 40 weeks per year. Thus the significant investment in buildings and equipment were left idle for 85 per cent of the year. Looking at the situation from this perspective casts great doubt on plans to continue to pour more capital into an existing investment that is utilised for so little time.

The fact that these resources are utilised for such a narrow period of time leads to great pressure on the facilities during that time. This “peak-load” problem had been greatly exacerbated by pressures from increasing enrolments. In 1980 the student population was 735. By 1990 this had grown to 940, an increase of 28 per cent. This pressure was particularly noticeable at the senior level of the school. In 1980 Years 11 and 12 had a total of 114 students enrolled. In 1990 the senior years grew to a student population of 232. This represents an increase of 103 per cent.

Enrolment figures also show that, despite some individual variations, the intake of Year 7 students had remained fixed. This was mainly due to the fact that the College facilities would not cope adequately with any further growth. There was, however, a continuously strong demand for additional places in the College. Many parents and their sons were turned away each year and denied places of enrolment. Each year approximately 200 interviews were granted to hopeful applicants while numerous others found themselves making unsuccessful enquiries over the telephone. Only an average of 175 families were successful in gaining placements for their sons.

Enrolment pressures were unlikely to ease in the near future. Within the context of the “Common and Agreed National Goals for Schooling in Australia”, (National Report on Schooling in Australia, 1989), one of the specific objectives of the Commonwealth school programs was:

*“To maximise retention”*  
(Commonwealth Programs for Schools, 1991:2)

In line with this national policy, retention rates have increased steadily in NSW. Table 3.4 illustrates this trend clearly for both government and non-government secondary schools from 1972 to 1989. Thus the trend of increasing enrolment pressure from the senior end of the school being experienced by Edmund Rice College was consistent with explicit goals of both Commonwealth and state governments.

**Table 3.4**  
**Retention Rates for NSW**

**Government and Non-Government Schools**

Year	Government	Non-Government	Total
1972	31.17	40.90	33.46
1975	30.59	44.66	33.45
1980	28.41	48.56	32.77
1985	36.15	58.47	41.66
1986	39.13	60.05	44.44
1987	41.48	63.04	47.11
1988	45.89	66.85	51.33
1989	49.10	69.30	54.4

(These figures have been derived from the Statistical Annex, 1991.)  
(Apparent retention rates show the percentage of students who continued to Year 12 from their respective cohort groups at the commencement of their secondary schooling.)

Factors in addition to government education policy also contributed to the growth in enrolments at Edmund Rice College. Unemployment for young people aged under 19 in the region was running at approximately 32 per cent. Major employers in the area, in particular BHP and the Coal Industry, were continuing to reduce the size of their workforce. At the same time the region was experiencing significant population growth. The push south, brought on by high housing prices in Sydney, high interest rates and lack of rental accommodation in Sydney, did not look like abating.

The Carrick Committee Report, (1989:180), cites an unpublished NSW Education Discussion Paper which suggests the following reasons for the increase in secondary school retention rates:

1. a general rise in living standards and therefore a rise in parental expectations and educational aspirations,
2. a decline in employment opportunities for early school leavers,
3. a rise in employer demand for school qualifications and a more highly skilled workforce,
4. the fact that 16 and 17 year olds are no longer able to claim unemployment benefits,
5. a decline in social acceptance of leaving school without a credential,
6. changes in social expectations of female students with regard to school and career.

The New South Wales Government schools had begun to respond to this situation by considering the following initiatives:

- trialling the establishment of technology and specialist secondary schools and a senior high school,
- implementing whole school student welfare policies incorporating personal development programs and fair discipline codes.

Edmund Rice College pursued its own innovative solution to cope with these changes.

The College Administration felt a moral obligation to provide a Catholic education for those families who wished it for their sons and yet increasingly places could not be found for them. The three other Catholic secondary schools in the region were in a similar position and it was unlikely that they could fill in the gap between supply and demand in enrolments being experienced by Edmund Rice College.

**3. Problem: How could the pastoral aims of the College be achieved in the face of continued growth and change?**

As well as the increase in numbers due to larger senior enrolments, there had been developing pressure at the Year 7 to 10 level, particularly in the area of pastoral care. The growth in the student population to over 900 made it increasingly difficult to maintain the high level of personal interaction between students and staff that was integral to the ideals of the College. A major concern was that the personalised pastoral nature of the College that had been carefully and deliberately cultivated for a number of years might sink to the level of "crowd control".

Movement of students between periods, interaction in the grounds at lunch-time and at recess and behaviour while travelling to and from school were perceived to be negatively affected by the overcrowding. There was quite a positive difference noticed when even one whole year group was away for the day.

There was also agreement amongst staff that a review of the pastoral care rules, regulations and direction was necessary. This system was seen as a dynamic process that continually needed modification to fulfil its perceived goals. Some of these goals are highlighted in the following extracts from the Staff Information Handbook of the College (p.43).

*" . . . A positive atmosphere will be created by adopting attitudes which require good standards of behaviour. This is achieved by a variety of methods and depends on good example, high expectations, freedom and responsibility within a framework of firmness and consistency. Perceptive and non-dogmatic adults should be readily accessible to students for discussion. Allowances should be planned bearing in mind the needs of individuals."*

*"There is no real division in the College between Pastoral and academic. We are all involved as teachers in various subject areas, yet we are all equally involved as teachers of*

*young people - helping them achieve their need to develop responsible autonomy within an ordered community."*

One aspect in particular was causing some concern. This was a need to allow a greater degree of self responsibility to students specifically in the area of decision making. The growth in student numbers at the College had shifted the balance towards the "framework of firmness and consistency" and away from "responsible autonomy". Some staff members held a view that these structures should be relaxed, particularly in Years 11 and 12 and be replaced with a modified or new model. The proposed new structure of the College was seen as a means of establishing an environment that would help form a framework within which these ideas could be developed.

**4. Problem: How could the College maximise the advantages of being an independent school and provide a more flexible and attractive environment for its employees?**

There had been continuous and increasing pressure on the teaching profession in NSW for some years. Teachers were faced with a crisis in morale and a serious loss of numbers to other industries. Changing government policies, award restructuring and a militant union mood were compounding daily problems confronting teachers. The formal and informal roles of teachers, teacher remuneration, career paths and the organisation of schools were all issues that were being focused for teachers.

The staff at Edmund Rice College were certainly caught up in this professional turmoil. Teachers at the school who were members of the NSW Independent Teachers' Association were involved in a strike over pay claims, the first in the College's history. They did this in support of their colleagues state-wide, not in an attack on their own internal administration, who were, in fact, in great sympathy with the claims. Although supporting the principle of increased wages for teachers, the College Administration felt unable to act independently on the claims. As stated earlier, Edmund Rice College is an independent Catholic Secondary School. From an administrative point of view this implies both advantages and disadvantages.

The Deputy Principal (Lear, 1990), states one such constraint.

*"Relying on substantial government funding. . . the College is not as free as some of the 'wealthier' private schools with regard to its capacity to set its own salary scales. Significant variation from award rates could well lead to funding authorities reviewing the College's categorisation, resulting in lower government funding and consequently higher fee levels."*

The independent nature of the College did, however, provide the opportunity for flexibility in many other areas in which it was not subject to the constraints imposed by centralised funding. Lear (1990), stated:

*"It is just this flexibility that allows it (the College) to attempt the innovations proposed for next year, and within that framework, to open up increased salary/responsibility opportunities justifiable from the operational requirements of the new model."*

Expected gains for teachers under the new system were to include:

- (a) more jobs
- (b) increased promotion prospects
- (c) shorter attendance hours for the same pay
- (d) more flexible hours of work
- (e) an improved level of resources
- (f) an offer of more specialisation for teachers
- (g) increased wages resulting from productivity gains

The opportunity to be directly involved in the development of such a new and innovative structure was seen as being an important strategy in maintaining the drive, enthusiasm and commitment of the staff of the College in the face of growing discontent in the profession as a whole.

The pressures experienced by Edmund Rice College that led it to develop an individual response to the given situation have been investigated. The following chapter will outline, in detail, the extended hours innovation adopted by this school in order to address these issues.

## Chapter 4

### **The Organisational Structure of the Extended Hours Model and the Process of Implementation**

Edmund Rice College sought to create a more responsive and flexible organisational structure in order to assist it in addressing the problems outlined in the previous chapter. The mechanism chosen to achieve this increased organisational efficiency was an extension of the existing school day.

Fundamentally, this meant that the teaching day, which had commenced at 9.00 a.m. and finished at 3.20 p.m., was altered so that it now started at 8.10 a.m. and finished at 5.20 p.m.

**It will be clearly shown in this study that, although these timetable changes may appear at first sight to be fairly minor, they do amount to a fundamental organisational innovation that has potentially significant consequences.**

As Fullan (1991:65) points out:

*“Educational change is technically simple and socially complex.”*

The technical changes to the timetable patterns increased the enrolment capacity of the College. As shown earlier in this study, many of the organisational pressures being experienced by the school were the result of increasing enrolment pressures. The introduction of extended operating hours had a number of immediate and crucial consequences:

1. The College had the capacity to increase its student population. This increased potential for growth was utilised by the College Administration to increase its fee base in order to assist in the financing of a building program.

- 2. The pressure on resources was spread over a longer school day. Greater timetable flexibility enabled a reduction in intensity of this pressure.
- 3. The organisational flexibility of the school in terms of staffing, timetabling and financial management was greatly enhanced.

It would pre-empt the analysis that will follow in this study if further claims were made at this point regarding the application of this innovation in a wider context. These claims will, however, be supported by a substantial body of data that will be presented in the remainder of this analytical investigation of the extended hours model.

The timetable used by Edmund Rice College in 1990, prior to the implementation of extended hours, followed a cyclic pattern. It consisted of six cycle days with the inclusion of a fixed day every Thursday. A typical three week school pattern is shown below:

<b>Week 1</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Timetable	Day 1	Day 2	Day 3	Fixed	Day 4
<b>Week 2</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Timetable	Day 5	Day 6	Day 1	Fixed	Day 2
<b>Week 3</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Timetable	Day 3	Day 4	Day 5	Fixed	Day 6

The extended hours timetable follows an identical cyclic pattern to the one shown above.

Table 4.1a

Timetable Analysis: 1990

Period Times

The period times existing in the 1990 timetable are shown below. The times applied to the whole school population.

Cycle Days

Admin	9.00 a.m. - 9.10 a.m.
P1	9.10 a.m. - 10.05 a.m.
P2	10.05 a.m. - 11.00 a.m.
Recess	11.00 a.m. - 11.20 a.m.
P3	11.20 a.m. - 12.10 p.m.
P4	12.10 p.m. - 1.00 p.m.
Lunch	1.00 p.m. - 1.40 p.m.
P5	1.40 p.m. - 2.40 p.m.
P6	2.40 p.m. - 3.20 p.m.

Table 4.1b

Fixed Day

Admin	9.00 a.m. - 9.10 a.m.
P1	9.10 a.m. - 9.55 a.m.
P2	9.55 a.m. - 10.40 a.m.
Assembly	10.40 a.m. - 11.00 a.m.
Recess	11.00 a.m. - 11.20 a.m.
P3	11.20 a.m. - 12.10 p.m.
P4	12.10 p.m. - 1.00 p.m.
Lunch	1.00 p.m. - 1.40 p.m.
P5	1.40 p.m. - 2.30 p.m.
P6	2.30 p.m. - 3.20 p.m.

Table 4.1a indicates the daily period times existing in the 1990 timetable. These times applied to the whole school population. From Table 4.1a it can be seen that under the old timetable arrangements the day was divided into six teaching periods. Each period was either 50 or 55 minutes duration. The teaching day was broken by breaks for recess and lunch lasting for 20 and 40 minutes respectively.

The fixed day (Table 4.1b), appearing in the College timetable was originally established as a weekly sports day when the school was involved in inter-school competitions. The College has changed its sporting arrangements and no longer is involved in weekly competitions. The fixed day has been retained, however, in order to facilitate a number of staff members who have, over a number of years, been employed on a part-time basis. The usual arrangement was that they worked 0.8 of a full-time teaching load and this was accommodated by working four days a week. In 1990 there were six staff members employed on less than a full-time teaching load. One teacher was employed on 0.2 of a full-time equivalent teaching load while five teachers were employed on 0.8 of a full-time equivalent teaching load. (In 1990 there were 64 teaching staff employed at Edmund Rice College - 38 male and 26 female.)

Table 4.2 indicates the extended hours implemented in 1991. This table highlights a number of fundamental changes made by the College Administration:

1. The teaching day has been extended from 6 to 10 periods.
2. The junior academic years follow a different daily pattern from the senior years. The junior's day commences at 8.10 a.m. and concludes at 1.45 p.m. The senior's day commences at 11.55 a.m. and concludes at 5.20 p.m.
3. The length of the daily teaching periods has been reduced to either 45 or 50 minutes.

Table 4.2a

Period Times for 1991- Cycle Days

The following table indicates the actual times introduced in 1991.

Cycle Days

Years 7-10		Years 11 & 12
P1	8.10 a.m. - 9.00 a.m.	
P2	9.00 a.m. - 9.45 a.m.	
Admin	9.45 a.m. - 9.55 a.m.	
Recess 1	9.55 a.m. - 10.15 a.m.	
P3	10.15 a.m. - 11.00 a.m.	
P4	11.00 a.m. - 11.45 a.m.	
Recess 2	11.45 a.m. - 12.05 p.m.	Admin 11.55 a.m. - 12.05 p.m.
P5	12.05 p.m. - 12.55 p.m.	P5
P6	12.55 p.m. - 1.45 p.m.	P6
		P7 1.45 p.m. - 2.30 p.m.
		Recess2.30 p.m. - 2.55 p.m.
		P8 2.55 p.m. - 3.45 p.m.
		P9 3.45 p.m. - 4.35 p.m.
		P10 4.35 p.m. - 5.20 p.m.

Table 4.2b

Period Times for 1991- Fixed Days

**Fixed Day**

P1	8.10 a.m. - 9.00 a.m.	
P2	9.00 a.m. - 9.40 a.m.	
Admin	9.40 a.m. - 10.00 a.m.	
Recess 1	10.00 a.m. - 10.20 a.m.	
P3	10.20 a.m. - 11.00 a.m.	
P4	11.00 a.m. - 11.40 a.m.	
Recess 2	11.40 a.m. - 12.20 p.m.	Admin12.10 p.m. - 12.20 p.m.
P5	12.20 p.m. - 1.05 p.m.	P5
P6	1.05 p.m. - 1.45 p.m.	P6
		P7 1.45 p.m. - 2.30 p.m.
		Recess 2.30 p.m. - 2.50 p.m.
		P8 2.50 p.m. - 3.40 p.m.
		P9 3.40 p.m. - 4.25 p.m.
		P10 4.25 p.m. - 5.15 p.m.

4. The lunch-time break has been reduced from 40 minutes to 20 minutes.
5. The Fixed Day schedule was different for two reasons:
  - (a) A longer recess break was introduced in order to allow for school masses to be held each week. Attendance at these masses was voluntary for staff and students.
  - (b) The senior day was reduced by 5 minutes as a concession to the Years 11 and 12 students who had Thursday afternoon employment. The slightly shorter day allowed them to catch a service bus into the city centre.
6. When a general staff meeting is scheduled, period 7 finishes at 2.20 p.m. instead of 2.30 p.m.

The alteration to the operating hours of the College is the focal point of the innovation adopted by the school. Although it was the most dominant feature, it must be stressed that the innovation pursued by the College contained a number of specific propositions that constituted an overall package of reform. The following information details some of the main features of this package.

### **1. Staff Hours**

In 1990, prior to the introduction of the extended hours innovation, the normal period of attendance for teaching staff covered a continuous 7.0 hour period. The normal working hours at school were from 8.30 a.m. until 3.30 p.m. The normal teaching load was 32 periods out of a 42 period, 7 day cycle. Each teaching period was between 50 and 55 minutes in length.

Special provision was made in the timetable for inbuilt relief. When a member of the teaching staff was absent, his or her classes were generally supervised

by another member of the College teaching staff. An allowance was made in the allocation of teaching load to provide for this inbuilt relief. Generally, substitutions were allocated only if a teacher had at least two non-teaching periods in the six period day. Special forms were available for teachers to complete in advance if their absences were anticipated, or completed by office staff via a telephone call if the absence was unforeseen. These forms provided instructions for the teacher supervising the "extra".

The extended hours model altered significantly the normal hours of attendance for teachers at Edmund Rice College. Under the new arrangements implemented in 1991, the normal period of attendance for teaching staff has been shortened to cover a continuous 6.5 hour period. Staff were to be present for a 7 period block daily. Three different timezones for the teaching staff have been adopted. The implemented teaching timezones are:

8.00 a.m. - 2.30 p.m. (periods 1 to 7)

9.30 a.m. - 4.00 p.m. (periods 2 to 8)

11.00 a.m. - 5.30 p.m. (periods 4 to 10)

Three timezones were chosen because this combination was thought to best cover the requirements of the new extended timetable as well as offering a range of teaching hours that would have the greatest chance of fitting in with the personal preferences and needs of the staff.

Teachers who were employed at the College prior to 1991 were asked to nominate which timezone that they preferred to work in. New staff were employed according to timezone needs. Table 4.3 indicates the results of an initial survey of teaching staff at Edmund Rice College. The distribution of choices matched fairly closely the anticipated requirements of the new timetable and hence the problem of forcing people to work timezones that they were not interested in was not encountered.

Although this three timezone option was implemented, experience has shown that the middle zone is hardly required. During 1991 only 3 staff members were working regularly the middle zone hours.

The normal teaching load remains unchanged by the extended hours innovation. It continues to be 32 periods out of a 42 period, 7 day cycle, provision for inbuilt relief remains.

**Table 4.3**

The following table indicates the results from the staff preference sheets used to determine the teaching program of staff for 1991.

Time Zone	Preference			
	1st	2nd	3rd	Unmarked
1	24 (42%)	12 (21%)	16 (28%)	5 (9%)
2	18 (32%)	28 (49%)	5 (9%)	6 (11%)
3	11 (19%)	9 (19%)	29 (51%)	8 (14%)

Two additional propositions that affected teaching hours were put forward for discussion. These two proposals were:

- (a) that the option be provided for staff to achieve their normal teaching load by teaching across two timezones and that an appropriate additional salary allowance be paid in these circumstances,
- (b) provision be made for interested staff members to increase their teaching load from 32 periods per cycle to 38 periods per cycle. (i.e. effectively taking an additional class) This option would require attendance across two timezones and would be accompanied by an additional salary loading.

The second of these two proposals caused some concern for a number of teachers. Some of the issues surfacing during discussions concerning the value of this proposition included:

- It is better for a teacher to earn additional income from teaching an extra class than it is for them to have a part-time job not related to teaching. It is better to teach than to “pump petrol or work in a shop”.
- Will teachers who currently give up their free time to be involved in such activities as coaching sporting teams or organising concerts and debates be also paid this additional allowance?
- Teachers feel that they do a great deal of work outside normal teaching hours that is not adequately recognised nor financially rewarded. Taking on additional classes may diminish this argument.

Table 4.4

The following tables indicate the results of the staff survey conducted by the Deputy Headmaster, enquiring about the following options:

1. **“Overtime” Options**

**Question** - If in order to fulfil “normal” teaching load requirements (i.e. 32 periods per cycle) it is necessary for a staff member to be on duty at school across 2 timezones instead of one then an additional salary allowance (e.g. \$1,500 would be paid).

Would you be interested in this option?

Results:	Yes	26	(46%)
	No	22	(39%)
	Unsure	9	(16%)

2. **Increased Teaching Load**

**Question** - If a staff member were interested in **increasing the teaching load** from 32 periods to 38 periods per cycle (effectively taking an extra class) then a salary loading (e.g. 15%) would be paid. (This option would require attendance across 2 timezones).

Would you be interested in this option?

Results:	Yes	12	(21%)
	No	34	(60%)
	Unsure	11	(19%)

These issues were not resolved. Results from a staff survey conducted in 1990 shown in Table 4.4 indicate that these two proposals caused some division of opinion. The timetable outcomes ultimately did not require either option to be further explored. Suitable staffing arrangements were implemented without the need for “overtime” to be considered.

**Enrolment Proposals**

As stated earlier, a crucial outcome of the extended hours model was that it allowed the College Administration to set increased enrolment targets for the school. The total school student population was expected to ultimately grow to between 1,100 and 1,200. It was not intended to allow enrolments in Years 7 to 10 to exceed 840. This figure would allow no more than 210 students in each of these academic years. There was expected to be an increase in senior enrolments to approximately 320. Table 4.5 indicated the anticipated increases in enrolments for 1991 and 1992.

Clearly the figures in Table 4.6 reveal that actual enrolments fell short of projected enrolments in 1991. The table reveals that this was primarily due to the College Administration being unable to accurately predict its Year 11 intake.

**Table 4.5**  
**Projected Enrolments**

Enrolments in Years 7 - 12 were to be increased to allow for the following numbers as maximum by 1992.  
(1990 figures are shown in brackets for comparison)

Year 7	204 (177)	6 streams (5)
Year 8	210 (178)	7 streams (6)
Year 9	210 (172)	7 streams (6)
Year 10	210 (167)	7 streams (7)
Year 11	180 (140)	7 streams (6)
Year 12	140 (92)	6 streams (5)
<b>Total</b>	<b>1154 (926)</b>	

Enrolment targets for 1991 were set at:-

Year 7	204	6 streams
Year 8	180	6 streams
Year 9	204	7 streams
Year 10	180	6 streams
Year 11	160	6 streams
Year 12	120	5 streams
<b>Total</b>	<b>1048</b>	

Table 4.6

Actual Enrolment Figures for 1991

	Number of Students	Difference from Proposed figure	% difference
Year 7	205	1	+0.5
Year 8	192	12	+7.0
Year 9	190	-14	-7.0
Year 10	166	-14	-8.0
Year 11	124	-36	-22.5
Year 12	118	- 2	-2.0
Total	995	-53	-5.0

Table 4.6 reveals that the Year 10 class of 1991 is a relatively small year. Neglecting enrolments from external sources, this will result in a small Year 11 class in 1992 which will be followed by a small Year 12 in 1993. These figures indicate that the College may not reach its projected enrolment numbers until 1993 or 1994. The extended hours timetable will, however, provide a framework that allows the projected figures to be attained at some time in the future if the College community still considers the growth desirable.

### **Proposed Changes to the Administrative Structure**

The anticipated growth in student numbers would, according to the College Administration, require changes in the administrative structure of the school. In particular, the growth being experienced in the senior section of the school required closer scrutiny. The duty of overseeing curriculum matters in both the senior and junior academic years had previously been the responsibility of one person. It was now thought that these duties should be separated.

There were also certain external influences that were taken into account when the altered administrative structure was proposed. The curriculum in New South Wales would, as from 1992, be defined in terms of Key Learning Areas rather than subjects. For secondary education the Key Learning Areas were to be:

- English
- Mathematics
- Science
- Human Society and its Environment
- Creative Arts
- Modern and Classical Languages
- Technological and Applied Studies
- Personal Development, Health and Physical Education

(Excellence and Equity, 1989:15)

The College Administration viewed it as appropriate to regroup its subject faculties into these Key Learning Areas, and provide Subject Co-ordinators for each of these departments.

The position of Assistant Co-ordinator was also proposed. The growth in student numbers was seen as justifying the creation of this position. The position was created in order to strengthen the ability of the middle-management of the College to cope with the increased work-load that larger student numbers would entail. The position was also considered to offer an additional career path for the staff of the College and hence would be a source of personal incentive and professional development.

- Assistant Co-ordinator positions were limited to the following key learning areas: Science, Mathematics and Human Society and Its Environment.
- These Assistant Co-ordinator positions were offered on a one year trial basis only.
- The position of Assistant Guidance Co-ordinator was not offered in 1991.

The main reason for these exceptions to the original proposals was that it was agreed that the Assistant Co-ordinator position needed to be trialled on a limited basis initially before its real contribution to the overall management of the College could be accurately assessed.

## The Process of Implementation

### 1. Innovation and Organisational Climate

Hall and Hord (1987:39) state that implementation outcomes depend on internal factors such as organisational climate, motivation of participants and the scope of the change. They further stress that, in terms of the organisational climate, the active support of the principal is very important.

In the planning and initiation stage the principal's agreement with the project, his input into the project proposal and the communication of his support and enthusiasm to others is crucial. Hall and Hord (1987:51), also claim that in the literature concerning change in schools the consistent theme is that leaders are the focal point from which action, and its subsequent effects, emanate.

There is a relatively large body of literature relating to innovation in schools emphasising the role of the principal in the whole change process. What some of the research apparently fails to perceive is that in many cases where effective change has been implemented successfully, the principal has not been the sole facilitator of change. Hord, Huling, and Stiegelbauer (1983), unexpectedly discovered this factor in a study of curriculum innovations in a number of schools in the United States. Hall and Hord (1983:21), highlight this point:

*"In our research on principals, we were surprised to discover that "principals don't do it alone!" In addition to the principal, in all our study sites we identified a second change facilitator or consigliere who played a very key role in facilitation. In fact, the consigliere and the principal making many more interventions together than in less effective schools, and the relationship between them was more meaningful and substantive."*

These observations reflect the situation at Edmund Rice College. The leadership team of the school, consisting of the principal and the deputy principal, certainly was the focal point for the initiation and implementation of the

innovation introduced at the school. The principal had been headmaster of the College since 1984, a period of eight years. For the same period of time the Deputy Headmaster position had been occupied by one person. During this time the two administrators had developed a very definite and effective leadership style. Their particular style led to an organisational climate that was crucial to the implementation of the extended hours innovation.

Halpin (1966) identified six different climates of school organisation. These included:

- The *Open Climate* which is characterised by a principals who set an example by working very hard themselves. They are not aloof, nor are the rules and procedures which they set up inflexible and impersonal. In the *Open Climate* the members enjoy high morale. The principals do not do all the work themselves but still provide clear leadership for the teachers.
- The *Autonomous Climate* is characterised by the almost complete freedom that the principal gives to teachers. The principal remains aloof from the teachers and runs the school in an impersonal manner. He provide guidelines but does not force people to produce.
- The *Controlled Climate* emphasises task achievement rather than social-needs satisfaction. In this climate teachers tend to work by themselves and are impersonal with each other. The principal is directive and dominating and delegates few responsibilities.
- The *Familiar Climate*, Halpin states, is characterised by the clearly friendly manner of both the principal and the teachers. The principals do not emphasise production nor do they personally ensure teachers are performing their tasks correctly. The principal is keen to be seen as one of the group.
- The *Paternal Climate*, Halpin describes, is characterised by the ineffective attempts of the principal to control the teachers. Halpin believes that this type of principal is non-genuine and non-motivating. Teachers experience poor job satisfaction. The principal is all invasive,

continually checking and monitoring, maintaining person control of all facets of the organisation at all times.

- The *Closed Climate* represents a situation in which teachers experience little satisfaction in respect to either task-achievement or social-needs. The principal is ineffective in directing the teachers' activities and is highly aloof and impersonal. In general, these principals do not provide effective leadership nor do they set a good personal example.

Hoy and Miskel (1982) point out that there has been some controversy regarding the six divisions of organisational climate identified by Halpin. (For example, Brown (1965), and Andrews (1965)). The major objection has been with the usefulness of dividing the continuum into discreet climates. Even Halpin had some reservations about the middle climates.

*"As in the case of most methods of ranking or scaling, we are much more confident about the climates described at each end of the listing than we are about those described in between."*

(Halpin and Croft, 1962:104)

Although the purpose of this thesis is not to analyse the large body of literature on organisational climate and innovation theory, Halpin's classification does give a theoretical description that is useful when considering school environments and their effect on the implementation of innovations.

An investigation of the organisational climate established at Edmund Rice College indicated that the perception of the staff was that it was a relatively open situation. Informal discussions and observations have led this researcher to form the opinion that this leadership pair has established an environment of trust between themselves and the rest of the College community. Personal observation suggests that commitment and esprit amongst the staff was relatively high.

Using Halpin and Croft's profile criteria (1962), Edmund Rice College staff perceived their principal and deputy principal to have qualities leading to relatively high esprit, trust, and consideration and relatively low disengagement, production emphasis and aloofness. Intimacy and hindrance would be classed as average. Halpin and Croft would subsequently label such a profile as an open organisational climate.

Anecdotal evidence and informal discussions reveal that the Principal and the Deputy Principal were not perceived by the staff of the College to be aloof or inaccessible. They both enjoyed the confidence of the staff. The opinion of the majority of the staff of Edmund Rice College was that the leadership pair had considerable administrative and organisational skills.

Lipham (1964:122) writes:

*"Presumably, two routes are open to the leader who would attempt to change established organisational relationships and goals. He may utilise delegated status and exert authority in terms of his role, or he may utilise achieved prestige and exert influence in terms of his individual personality."*

The leadership of Edmund Rice College possessed qualities that could be utilised positively in any process of innovation.

## **2. The Process of Innovation**

Hoyle (1976) suggests that any process of innovation should be viewed as a continuum. Stages in this continuum would include invention, development, diffusion and adoption. Other researchers view the innovation process as involving similar stages. For example, Hage and Aikes (1970), envisage the change process as involving the steps of evaluation, initiation, implementation and routinisation. Fullan (1991:48), suggests four broad stages: initiation, implementation, continuation and outcome.

These divisions of the change process are, of course, a great simplification. There are many factors operating at each point on the continuum and the stages may occur simultaneously. The identification of these stages does, however, present useful focal points that assists further analysis.

### **“Invention”**

The “invention” of the Edmund Rice innovation can be traced to informal discussions held between the Principal and the Deputy Principal in the second half of 1989. At the end of 1988 and the first half of 1989 the Principal went to London University on sabbatical. On the way to Britain he visited Malaysia and Singapore and gained some insight into the educational structure of those countries. Each of these Asian countries had some form of “double-shifting”.

The Principal found the following features of the system of education in Singapore and Malaysia to be of particular relevance to a possible change process at Edmund Rice College:

- In Singapore schooling is not compulsory. Less than 1 per cent of children, however, would not attend school until at least the conclusion of primary school. There are three types of schools in Singapore:
  - Government schools,
  - Government assisted schools,
  - Independent schools.
- The post-war period found Singapore with not enough plant to satisfactorily educate all its potential clients. This led the Government to introduce a system of double-shifting. The timetable operates as follows:

#### **Session 1**

- 7.30 a.m. to 1.00 p.m.
- 8 periods
- a short break at the conclusion of a period 4
- twice a week students remain for extra curricular activities such as remedial work, sports' afternoons. These sessions last 1.5 hours

- The senior students study in the morning session as it is cooler and their education is deemed to be more demanding and should therefore take place in a more conducive atmosphere.

## **Session 2**

- 1.00 p.m. to 6.30 p.m.
- 8 periods
- a short break at the conclusion of period 4
- twice a week students arrive at school early to participate in extra curricular activities.

Younger students study in the afternoon.

- There is a complete change of teaching staff between the two sessions. Each teacher is, however, expected to take three hours of extra curricular activities in two blocks each week. There is an extra half day of school each week in Singapore. All of the staff and students attend in the morning period for meetings, sport, clubs and societies. This is also the time for staff meetings.
- In Singapore's schools the position of Head of Department has only been created within the last few years. They have a reduced teaching load and are not expected to take extra curricular activities. They are expected to spend time in an overlapping supervisory role.
- Another recently created position has been the Head of Year. This pastoral position, similar to the Year Co-ordinator of Edmund Rice College, does not, however, involve a significant reduction in other duties to facilitate new responsibilities.
- The position of Deputy Principal is also a relatively new one. Until recently, the Principal was the only member of staff who overlapped the school day. Approximately two thirds of schools with a student population of over 1,000 have a Deputy. In the schools where there are two administrative positions, the Principal and the Deputy are expected to work 8.5 hours and the period of overlapping varies.

- School facilities such as the library, canteen and office are open all day. Announcements and roll marking take place at different times in different schools.

The Edmund Rice College Principal observed a number of negative features. These included:

- A major strain on school facilities during the chang-over period at 1.00 p.m.
- A lack of cohesion between the staff of the schools observed. This may have been also related to the size of the staff. One school visited by Brother Evans had 142 staff members!
- Wear and tear on the school facilities was very apparent.

In Singapore there is a move away from double-shifting towards one session schooling. The reasons given for this change were:

- A stable if not reducing student population
- The Government of Singapore has now stated that it has sufficient money to build more and smaller schools.

The Principal and the Deputy Principal had for some years been discussing ways to utilise better the resources of the College. On return to Wollongong during informal discussions, the Principal related to the Deputy his overseas observations and asked the question, how could they utilise this idea at Edmund Rice? The Deputy Principal considered this question and offered a response that was to form the basis of the eventual extended hours concept at the school. Thus the initial idea and the impetus for its further diffusion came from the hierarchy of the College.

Certainly, the concept of extended school hours, or "double-shifting", does not constitute an unique "invention" by the leadership of Edmund Rice College. Hoyle (1976:31), states the obvious:

*"On the grounds that "there is nothing new under the sun", inventions are usually adaptations of what already exists."*

The question may be asked, does the concept of extended school hours qualify as a legitimate innovation? The term "innovation" seems to have different meanings in different situations and different cultures. Niehoff (1966:26) has given the following definition:

*"A process that begins with an idea on the part of a change agent and ends with its adoption or rejection by the potential recipients."*

Miles (1987:46), says:

*"Generally speaking it seems useful to define innovation as a deliberate, novel, specific change, which is thought to be more efficacious in accomplishing the goals of a system."*

The concept of introducing extended hours at Edmund Rice College must clearly be accepted as an innovation if either of the above two definitions are accepted.

A point crucial to the analysis of the implementation of this innovation is the fact that it was conceived and developed at the point of need. Thus, it was not an idea imposed upon the school by some external body in a position of power. The concept of extended hours was school based and a specific attempt to solve a set of practical problems.

### **"Development"**

The next stage of Hoyle's innovation continuum, the development stage, certainly did involve the staff of the College. Following further discussions between

the College Administrators, the concept of "double shifting" was informally introduced to the staff. Hoy and Miskel (1982:304), state:

*"Informal channels, commonly called "grapevines", exist in all organisations regardless of how elaborate the formal communication system happens to be. One fact that has been observed repeatedly by researchers and by participants in organisations is that people who are in groups, cliques, or gangs tend to reach an understanding on things or issues very quickly. They communicate easily and well amongst themselves. . . Facts, opinion, attitudes, suspicions, gossip, rumours, and even directives flow freely through the grapevine."*

The leadership of the College utilised these informal channels of communication existing within the school very deliberately. No formal proposal was put down on paper and presented to the staff until May, 1990. There was, however, much discussion at many levels within the school. The concept of extended school hours was presented informally to individual members of staff and to subject and guidance co-ordinators. It is important to note that the innovation was floated as an idea and not as irrevocable decision.

The informal period of discussion filled two important roles in the process of implementation. Firstly, it provided an opportunity for an exchange of ideas. This allowed the innovation to grow in response to the needs of the particular school environment that would be utilising it. Secondly, it allowed discussion to take place in a relatively non-threatening situation.

When a new idea is introduced it does not take long for genuine concerns to arise. The informal discussion stage provides an opportunity for more "philosophical" concerns to be debated. When innovations are presented with only limited discussion time and in a manner that suggests that decisions have been made and are fixed, the whole process becomes personally threatening for those

involved. Rational debate is often clouded by personal insecurities and resistance is automatic.

Some of the more general questions that were posed by staff early in the discussions included:

*How will the whole thing work?*

- *Are we going to be asked to work longer hours?*
- *How big will the school become?*
- *How will the parents react to the idea?*
- *Where else in Australia or in what other countries has this been done before?*
- *Will this mean the school can become co-educational?*

These questions, among many others were considered and debated by the staff of the College.

The informal discussion allowed the staff of Edmund Rice College to develop ownership of the whole innovative process. It enabled the leadership of the College to gauge the “readiness” of the staff to accept change. During this time questions were raised, comments were made and modifications were made. By the time the formal process began in 1990, the staff of the College were familiar with the proposed concept of extended school hours and were, in principle at least, supportive of the idea.

It is an interesting factor that parents of students at the College were not significantly involved in the development of the extended hours concept. The parents had a unique relationship with the staff of the College and in particular, with the principal.

The deputy principal (Lear, 1991), made the following observation regarding the parents of the College.

*"There is a large migrant population in the school, a conservative group of parents who want the best for their sons,, so instead of working in the Steelworks they can go out and become doctors or engineers or whatever. The other side to that is that they really do believe that if the school makes a decision to do something it is going to be in their son's best interests. This is a great trust that they have in the school and if Brother says that this is what needs to be done then there is considerable acceptance from that group.*

*It is very much 'we will entrust our sons to you at the beginning of Year 7 and we will thank you for their education at the end of Year 12 and to a certain extent what goes on in between we rely on you to make the right decisions'. There is quite a bit of that and it can be frustrating at times for teachers who want to get parents involved in some decision making things that go on in the school. We have a significant proportion of our parent population that really just don't want to. They believe that they have sent their son to the school, the right place for him, and what Brother says will be right."*

*(From an address to a seminar given for interested educational administrators in 1991)*

Although there was no obvious direct involvement of parents in the development of the extended hours innovation, the College Administration did take deliberate measures to continually inform parents of impending changes well in advance. For a number of years the College had sent home to families every week a newsletter. This newsletter had proven to be an effective method of communication with parents and was the vehicle used by the College Administration to inform parents of progress in the development of the extended hours idea.

The need for direct parent involvement in school activities is not always essential and, in many cases, may even lead to inefficiencies in school organisation. Schools with high levels of parent involvement may experience problems with parental interference. Chubb and Moe, (1990:49), agree with this proposition. They argue that their extensive research indicates that effective and ineffective schools are equally likely to have parents who participate directly in school activities and in both cases the proportion of parents is relatively small.

Research evidence about the impact of parent involvement in schools is inconclusive (Levine and Lezzotte 1990:24). One problem is, as Fullan (1991:228), points out is:

*"One of the reasons that the role of parents is so confusing is that what is meant by involvement is not often specifically defined, nor is it linked with specific outcomes"*

The Australian Effective Schools Project (McGaw et al, 1992:107), found that:

*"the responses give a much greater emphasis to parents' role in direct and indirect support of their own children's learning and in support of the school and its programs than they do to parent involvement in decision making and governance of schools."*

More important than the frequency of parental involvement in school activities is the quality of the flow of information between the school and its parents. The ACER report on effective schools, (McGaw, Banks and Piper 1991:11), support this viewpoint:

*"The flow of information to parents about the school's educational programs and the progress of their children is*

*most important . . . The form of the communication is important, for it must be meaningful and helpful."*

### **"Diffusion"**

There is no definite division between any of the stages of Hoyle's innovation continuum. The third stage identified by Hoyle, the diffusion stage, occurs simultaneously with other stages in the continuum. Thus at Edmund Rice College, the diffusion of the concept of extended hours occurred while the development of the idea was continuing.

There was, initially, a deliberate decision made by the College leadership regarding the role each of the two leaders would assume in the process of diffusing information. The principal took primary responsibility for "selling" the concept to the external community. This included presenting the idea to the Christian Brother trustees, to parents, the union, government bodies and the general public. The principal was well positioned to fill this role effectively. He had a very high public profile in the local region due mainly to the fact that he hosted a popular radio talk-back program and also wrote a weekly column in the local newspaper. The principal was an influential person both inside and outside the school community.

The public image of the College was a very important consideration in the decision to pursue the extended hours project. A private school is very dependent on public image and confidence in order to ensure future clientele. The parents of the students at the College were, in general, a relatively conservative group and change is a very disconcerting process, especially when their protective instincts concerning their children were involved. The leadership and staff of the College considered the risks involved in attempting to implement any significant degree of change. In their judgement, however, the College had established sufficient public confidence to weather any traumas caused by the change process.

The Deputy Principal assumed the primary responsibility for the internal processes associated with the project. This included continuing discussions with staff, both individually and at co-ordinator level. It also involved formalising the proposals, constructing the timetable, overseeing student subject selection and establishing new teaching patterns.

Familiarity with a concept is frequently an advantage when attempting to initiate change. When the notion of "school shifts" was first introduced to parents, it was a situation that was not completely alien to them. Wollongong was very much a "shift" city. It was a city that, historically, had great dependence on the steel and allied industry and on coal mining. The local economy was dominated by these industries, and a significant proportion of the workforce was involved in shift work. Hence, although shift-work in schools was a new innovation in the local area, its application in the wider community was quite commonplace.

It is difficult to assess in hindsight exactly what impact, if any, local familiarity with shift-working had on the implementation process of the extended hours model at Edmund Rice College. It is reasonable, however, to consider the possibility that it had some effect on community perceptions of the project and hence on the rate of diffusion of the concept.

The major source of communication between the College staff and the parent community is through a newsletter that is sent home to parents via their sons, once a week. The last newsletter of the year is usually posted out with the student's annual report. This was the method of communication that was used to inform parents of the fact that a proposal to extend the teaching hours of the College was being investigated. There were no detailed explanations, simply two brief paragraphs at the end of the newsletter. The letter was posted out at the end of the school year of 1989. The initial communication with parents did not elicit any significant response. Only two parents contacted the school to comment.

Informal communication channels exist not just in organisations, but in the external community as well. It has been explained earlier how informal

communication networks can be utilised by an astute administrator. It is equally true that an administrator cannot significantly control informal communication channels and that sometimes they run contrary to planned change. In March, 1990, a newspaper reporter gained knowledge of the changes being investigated at Edmund Rice College. This knowledge was gained at a dinner party where the changes were being discussed by some parents and staff members. A few days later a story appeared on page 3 of a Sydney newspaper outlining the proposals.

The informal communication network had temporarily taken over the agenda of the formal communication process. During the days following the newspaper article, the principal of the College was bombarded by various media organisations from around the country. Of course the local media, in all its forms gave the proposals wide publicity. There were a number of staff and a number of parents who felt threatened by this new course of events. The well-planned pace of the whole change process appeared to have greater momentum than some members of the College community were able to accept.

The weeks following the media blitz were utilised by the College leadership to reassure those involved in the change process that the media would not set the agenda and that any changes made would be fully communicated to those affected to allow sufficient time to register effective input.

A special meeting of the Parents and Friends Association was called. Normally these meetings average 50 to 60 parents, but, in this instance a little over 200 people turned up. At this meeting the proposals as they existed at this time were detailed and comments or objections were called for. Although there were numerous questions seeking clarification of various points in the proposals, there were few stated objections. In another letter, parents were again invited to contact the Principal or the Deputy Principal if they had any further questions or if they required further information.

There were approximately six people who came to the College to express real concerns. Ultimately, there were eight boys who left the College because of the

proposed changes to the school hours. This figure represents less than 0.9 per cent of the total student population. This obvious support for the extended hours proposal is an indicator that the judgement of the College leadership was well-placed in terms of the College community's readiness to accept change.

During this process of development, there were other external bodies that were consulted in order to ascertain the level of acceptance the innovation would receive in the wider education system. The first of these bodies to be consulted was the Federal Government.

As stated previously, non-government schools and school systems are classified into twelve funding categories, with a category twelve school attracting the highest level of grants. Edmund Rice College was classified a category eleven school and hence was able to obtain the second highest level of funding per student. The funds were in the form of general recurrent grants that could be used for meeting operational expenditure. Thus the grants could be used by Edmund Rice College to cover such factors as teaching and ancillary staff salaries and for specific purposes such as professional development of teachers and curriculum development, maintenance and general operational provisions.

There are certain changes to the existing nature of a school that would require notification to the Commonwealth authorities and involve a subsequent revision of funding arrangements. The Administrative Guidelines for Schools, 1991 reveal the following changes require immediate notification:

- *an extension of a school's present educational provision to encompass primary, junior secondary or senior secondary,*
- *a change in the location of the school, or part of a school,*
- *an amalgamation with another school,*
- *the separation of the school into two or more schools,*

- *a change from a single sex school to co-educational or vice versa, and*
- *the commencement or cessation of boarding or day provision within a school.*

It is also a legislative requirement that an existing school undertaking a change of operation that includes any of the above factors must give two years written notice prior to the commencement of the change.

An examination of the above points establishes that the College was not entering into any changes that would require notification and hence a possible change in their funding allocation from the Federal Government. This also meant that the College Administration was not encumbered with a two year waiting period before being able to implement the proposed changes to its operating hours.

The next external body that the College notified was the New South Wales Government. On being notified of the proposal, the State Government indicated that it had no objections. There is no legislative requirement that prescribes the daily operating hours of a school in New South Wales. There are specific curriculum requirements that detail the total hours per year in a particular subject area that a student must be exposed to. Thus, as long as a school ensures that these requirements are met, daily timetables are free to be constructed to meet individual school needs. The State Government did indicate that it would be interested in monitoring the progress of the innovation at Edmund Rice College.

The Principal at Edmund Rice College is responsible to the Provincial Council of the Order of Christian Brothers who are the trustees of the school. They were also notified of the proposed alterations to the College operating hours. Their approval was required before the College could implement their proposal. Their permission was given.

It is relevant to briefly consider the relationship between the College and the Provincial Council of the Christian Brothers. At no time during the planning and

development stage of this innovation was the Provincial Council involved directly. The independence of the College Administration was an important factor in the overall change process. Decisions were school based and were responses to specific school needs. The College was not responding to system needs. Bureaucratic interference or restriction was minimal. Decisions did not have to be ratified by sources external to the College community. Decision did not have to be modified to meet the needs of a larger system. Ownership of the proposals was uniquely shared by the staff of the school itself.

There were two other bodies that needed to be included in the development and diffusion stages of the innovative process pursued by Edmund Rice College.

### 3. The Teachers' Union

Approximately 80 per cent of the staff at Edmund Rice College were members of the Independent Teachers Association of New South Wales. The College Administration included representatives of this Union in the preliminary discussions regarding the proposal to extend the operating hours of the school.

In analysing the implementation process of this particular innovation it is important to consider the political climate that existed in the education system in New South Wales at the time of the development of this proposal. The New South Wales Government's amendments to the Industrial Arbitration Act were being fiercely argued both in the Parliament and in the media. These amendments provided for the establishment of enterprise based agreements. These agreements had the potential to replace, in whole or in part, the existing award provisions. The Independent Teacher's Association vigorously opposed the legislation. They argued that it was unnecessary and likely to be used by employers to downgrade existing salaries and conditions. The State Government argued that the legislation was designed to introduce more flexibility into the workplace.

Regardless of the political stance taken on this new legislation, the facts were clear that it opened up significant new possibilities for change in established work practices. Options for award variations that the Union were prepared to consider included:

- The introduction of overtime rates for teachers for after school and weekend work. Where such extra payments did not already apply.
- The provision of childcare centres at school premises, with the school at the employee's request, deducting the cost of childcare from the gross salary of the employees.
- The entering into agreements with individual schools or dioceses to allow teachers to take part of their salary as increased superannuation.
- More flexible school starting and closing times, to allow for greater utilisation of capital resources. This would be only by agreement of

employees and provided it did not increase the current number of hours worked within a normal school week.

- The possibility of teachers being paid overtime for taking “extras” where casual relief is not freely available.
- Variation of the current promotions position clause to suit particular school populations or curriculum innovations.

(I.T.A. Newsmoth, February, 1991)

The Edmund Rice innovation was one that the Independent Teachers Association was prepared to support in principle. The two stipulations made by the Union:

- (a) that agreement must be reached with the teachers to be affected and that no unreasonable pressure or coercion be utilised in negotiations, and
- (b) that any proposal of this nature did not increase the current number of hours worked by a teacher in a normal school week, were met by the College proposal.

Following the May, 1991 State Wage Case, “Enterprise Arrangement” clauses were inserted into industrial awards. Enterprise arrangements involve the union and the Industrial Commission entering into agreements which may provide more flexible working structures, improvements in the quality of work or improvements in skill training and job satisfaction. Appendix 3 cites the details from the New South Wales Independent Teachers Association Award on enterprise arrangements.

It is interesting to note that, although Union consultation was consistently sought during the implementation process, no formal agreement was signed between the College Administration and the union. It is a significant comment on the relationship between the staff and the Principal that no such formal agreement was ever sought even though the district union delegate had discussed the possibility of such a site agreement.

School Administrators have sometimes felt intimidated by teacher professional organisations. An innovative climate has often been dampened by fears of union inflexibility. The Edmund Rice College experience has indicated that co-operation is certainly possible provided channels of communication are established and maintained.

#### **4. Transportation Considerations**

Approximately 70 per cent of the student population of Edmund Rice College catch a bus to and from school each day. Approximately 10 per cent of students catch a train as well as a bus. The remaining students either walk, drive or are driven or ride a bicycle to and from school. These figures indicate that a significant proportion of the student population are dependent on bus transport and hence any innovation affecting this aspect of the school requires careful consideration and planning. Many people initially involved in discussions regarding the extended hours innovation felt that the transportation problems were all but insurmountable.

The school was serviced by four private bus companies. There is no government bus service in the Illawarra region. Two particular bus companies account for approximately 80 per cent of students who catch buses. One other smaller company provided special daily services while the fourth company provided indirect transport through its normal service route.

Prior to the implementation of the extended hours innovation three buses arrived at the school prior to 7.55 a.m. This meant that more than 200 boys were at school before 7.55 a.m. even though school did not start until 8.55 a.m. Boys who caught these buses would not have arrived home until after 4.30 p.m. Thus their school day extended from 7.00 a.m. until 4.30 p.m. This represented a long day.

The College Administration found that the bus companies were very co-operative in discussing and finally implementing an altered bus service for the school. The companies were consulted early and provided with information about projected enrolment figures and the probable geographic distribution of the

students. The College Administration had two meetings with the bus companies together with Government Transport Authorities who control the implementation of government policy on free transportation to schools.

The final result was a workable system of transport for all students to the College during 1991. Clearly, there were modifications that needed to be made after the commencement of the new school year. Changing train timetables and new community service bus timetables at the start of 1991 meant some teething problems were needed to be overcome. The net result of the new transport arrangements were that all students in Years 7 to 10 attending the morning session were bussed to and from school via school specials. Years 11 and 12 students attending in the afternoon session made more frequent use of the community service bus network than previously. All senior students are on a bus home by 5.50 p.m. One of the bus companies provides two school special buses that link up with the community service bus network in the south and in the north. Another company provides a similar southern service through an alternate route.

While some students have clearly had their school day reduced, others have suffered a comparative deterioration in their travel arrangements. Exactly how students travel arrangements have been affected will be analysed in a later chapter when survey responses are considered.

This chapter has concentrated on detailing the organisational structure of the extended hours innovation developed by Edmund Rice College. It has also outlined the process of implementation adopted by Edmund Rice College. Many of the stages of development experienced by the College would have features that would be relevant to other schools either considering modifying the extended hours innovation to their particular needs or schools proposing to initiate their own particular organisational innovation.

In the following chapters the Edmund Rice College innovation will be examined in further detail. The next chapter will present a detailed assessment of

the cost-efficiency of the innovation and will examine its contribution to the financial management of the school.

## Chapter 5

### A Cost Analysis of the Extended Hours Innovation

As demonstrated in an earlier chapter, there is a definite trend towards giving individual government schools more autonomy and flexibility to spend funds within broad policy and system guidelines. The impact of the extended hours model on an individual school's budgeting strategies needs to be detailed.

In this chapter the analysis will concentrate on detailing the financial experiences of Edmund Rice College. These experiences, although in fine detail are unique to Edmund Rice College, will highlight potential financial costs and benefits for other school administrators.

Edmund Rice College utilised the extended hours model in order to

- (a) increase their student population in order to increase their fee base,
- (b) assist in the financing of a building program.

These two particular factors may or may not be specifically relevant to other schools contemplating the introduction of this innovation. An analysis of the financial costs and benefits experienced by Edmund Rice College can still be of use to potential users of the model by revealing factors that will require consideration on an individual level. Additions and deletions to these cost factors can thus be more easily made using the Edmund Rice College experience as an initial framework to operate from.

A more detailed analysis of the adequateness of the College's physical resources can be made by comparing the initial size of the College prior to the commencement of any building program with Government recommendations for similar facilities. These figures can be obtained from the New South Wales State Government Interest Subsidy Handbook. These guidelines establish the prescribed functional area for the various teaching facilities in a school that the Government is willing to pay interest subsidy on with respect to loans offered to schools to facilitate

building programs. Anything in excess of these figures are considered by the Government to be above basic requirements and hence, in the opinion of the Government, extravagances rather than necessities.

Table 5.1 compares the existing area available at Edmund Rice College with the recommended Government figures for a school with a student population of between 801 and 1000. It is clear from these figures that the school was deficient in nearly all key learning facilities. The figures reveal that once enforced demolition of the 10 classrooms had been completed the College would be deficient in the following facilities:

- 7 general learning areas
- 3 specialist art rooms
- 4 art rooms plus storage area
- 1 music room plus storage area
- 1 gymnasium
- significant library space
- additional staff area

The figures do not, however, support the claim that the school required additional computer learning space. The College, in fact, marginally exceeded the nominated maximum figure in the area.

These facts support the claim that the College was, indeed, justified in its contention that it needed to embark on a program that would yield a significant increase in available teaching space.

**Table 5.1**

**A Comparison of Existing Facilities at Edmund Rice College with Recommended Government Guidelines for a School of Between 801 and 1,000 Students.**

<b>Type</b>	<b>ERC (sq. metres)</b>	<b>Guidelines 801-1000 (sq. metres)</b>	<b>Difference (sq. metres)</b>	<b>Equivalent Classrooms</b>
GLA's	1834			
less (to be demolished)	<u>308</u> 1526	1857	-331	-7
Hall	600	655	-55	
Library	530	571	-41	
Science	650	690	-40	-1 store room
Indust. Art	392	701	-309	-3
P.E.	97	181	-84	-1 gym
Clinic	20	20	0	
Admin.	242	277	-35	
Staff	441	523	-82	
Art	209			
less (to be demolished)	<u>144</u> 65	357	-292	-5
Food Service	40	54	-14	
Groundsman	19	15	+4	
Cleaner	28	43	-15	
Computer	80	79	+1	
Music	117	212	-95	-1 plus store

(Source: NSW Government Interest Subsidy Handbook, 1991.)

**Table 5.2**

**A Comparison of Existing Facilities at Edmund Rice College with Recommended Government Guidelines for a School of Between 601 and 800 Students.**

<b>Type</b>	<b>ERC (sq. metres)</b>	<b>Guidelines 601-800 (sq. metres)</b>	<b>Difference (sq. metres)</b>	<b>Equivalent Classrooms</b>
GLA's	1834			
less (to be	<u>308</u>			
demolished)	1526	1363	+163	+3.4
Hall	600	655	-55	
Library	530	475	+55	
Science	650	598	+52	+1 prep room
Indust. Art	392	701	-309	-3
P.E.	97	178	-81	-1 gym
Clinic	20	20	0	
Admin.	242	256	-14	
Staff	441	445	-4	
Art	209			
less (to be	<u>144</u>			
demolished)	65	296	-231	-4
Food Service	40	54	-14	
Groundsman	19	15	+4	
Cleaner	28	40	-12	
Computer	80	79	+1	
Music	117	212	-95	-1 plus store

(Source: NSW Government Interest Subsidy Handbook, 1991.)

Table 5.2 details the State Government guidelines for a secondary school with a student population of between 601 and 800. It is clear from this table that Edmund Rice College was still greatly below recommended levels in most of the specialist facilities. Even the conversion of the three general classrooms that the College would be in excess of the guidelines figure would not eliminate the need to build additional specialist rooms. Thus, even if it were feasible to reduce the size of the student population below 800, the College would still have inadequate facilities according to Government guidelines.

**Cost Analysis**

The conventional role of cost analysis in assessing a possible change can be applied to the Edmund Rice College experiment. The school had before it a number of alternatives to the existing situation. As stated earlier, when considering the changes necessary, the College Administration had to weigh total resource implications, not just financial outcomes.

It is a useful exercise, however, to analyse the financial costs of the chosen solution and, in the process, compare these costs with those that may have been incurred by following an alternative path. Initially the analysis will confine itself to investigating resources consumed or appropriated by the choice to implement extended school hours and any resources generated directly from such a decision. Primarily, this cost analysis will focus on the problem:

*How could Edmund Rice College best finance a substantial building program in a way that would minimise the burden on the school community?*

The alternatives that the College Administration considered were:

1. Extend the operating hours of the school, essentially dividing attendance into two overlapping shifts. This would effectively allow the student population to expand without increasing pressure on the existing building program.

2. Keep the student population static and increase the fees to cover any additional loan burden.

It is essential to clarify the methodology to be used in the following cost analysis. The ingredients model detailed by Levin (1983) will form the basis of the method utilised. Initially, this model starts with developing the notion of opportunity cost.

*“Every intervention uses resources that can be utilised for other valued alternatives. . . Thus the cost of a particular activity was viewed as its ‘opportunity cost’ . . . In cost analysis a similar approach is taken, in that we wish to ascertain the cost of an intervention in terms of the value of the resources that were used or lost by applying them in one way rather than another.”*

Levin suggests that to do this we should specify all of the ingredients that are required for any particular intervention. These specified “ingredients” then require a value to be placed on each of them. The total cost of the intervention can then be established by adding all their values together. These cost figures can then be further manipulated depending on the desired direction of analysis.

The cost analysis of the first stated alternative of providing extended operating hours is in the initial instance a retrospective one since the initial results of the implementation of this innovation are available. The costs involved can be divided into some basic categories.

## **1. Personnel Costs**

The enrolment figures shown in Table 3.3 indicate that the student population in 1991 had been allowed to grow to 995. This represents an increase of 69 students over the population of the preceding year. This figure is significantly

smaller than the projected figure of 1048 put forward in the discussion paper presented to the College staff in 1990.

These additional 69 students were not evenly distributed across the total student population. The distribution of the increase is shown in Table 5.3.

**Table 5.3**  
**Increase in Student Numbers**

Year	1990	1991	Increase	% Increase
7	177	205	+28	+16
8	178	192	+14	+ 8
9	172	190	+18	+10
10	167	166	- 1	-0.6
11	140	124	-16	-11
12	92	118	+26	+28
	926	995	+69	+ 7

Source: Edmund Rice College enrolment records

This table clearly shows that there was a significant increase in Years 7, 8, 9 and 12. The increase in numbers in Years 7, 8 and 9 were a direct consequence of the pursuit of additional students to fill the increased capacity of the College. Thus these increases can be seen as generating income and expenditure that can be directly related to the implementation of the new model of operation.

The increase in numbers in Year 12 were not a direct consequence of the new extended hours model in operation. As discussed earlier in this paper, both Government policy and local employment pressures had been contributing to an increase in enrolment in Years 11 and 12. Thus the increase in numbers in Year 12 in 1991 should not be seen as a direct consequence of the implementation of the new model and hence these numbers will not be included in a cost analysis of the model.

The significant decrease in student numbers in Year 11 were a result of a much smaller Year 10 in 1990. The 1991 figure still represents a 74% retention rate

from the Year 10 student population in 1990. The table below compares retention rates for students progressing into Year 11 at Edmund Rice College in the last decade.

**Table 5.4**  
**Retention Rates at Edmund Rice College**

<b>Year</b>	<b>Retention Rate from The Previous Year (%)</b>
1981	41
1982	49
1983	55
1984	63
1985	64
1986	65
1987	70
1988	63
1989	68
1990	79
1991	74

Source: Edmund Rice College enrolment records.

(Retention rate refers to the size of the Year 11 group for the year indicated expressed as a percentage of the Year 10 cohort from the previous year.)

Therefore, the decrease in Year 11 student numbers does not represent a significant rebuff to the new operating hours. It is largely a reflection of a smaller

1990 Year 10 population. The figures do indicate that the College was not able to attract significant numbers of students from other schools to increase its Year 11 numbers. This was one reason why the projected 1991 student population figure of 1048 could not be attained. The figures in Table 5.3 also indicate that Year 11, 1992, will also be a relatively small one. Clearly maximum total student population will not be attained before 1994.

An investigation of Tables 5.5 and 5.6 will allow an approximation to be made of the increase in teacher numbers resulting from the decision to extend the operating hours of the College.,

**Table 5.5**  
**Staffing and Subject Period Allocation - 1991.**

Subject	No. of Teachers*	Total No. of Periods#	Periods Per Year					
			12	11	10	9	8	7
Art	2.9	93	9	6	6	12	24	36
Music	2.6	84	6	6	6	6	24	36
Drama	0.4	12	0	0	6	6	0	0
English	7.2	231	33	30	36	36	48	48
History	2.7	87	27	38	12	12	0	18
Liv. Skills	0.2	6	0	6	0	0	0	0
Gen. Studies	0.2	6	6	0	0	0	0	0
Soc. & Cul.	0.3	9	9	0	0	0	0	0
Computers	0.8	27	0	9	6	6	0	6
Careers	0.2	6	0	0	6	0	0	0
Life Skill	0.4	12	0	0	6	6	0	0
Indust.Arts	5.5	177	24	18	36	42	33	24
Languages	1.8	57	8	4	18	18	9	0
Maths	7.0	225	36	33	42	42	36	36
P.E/Health	3.4	108	0	6	12	18	36	36
Religion	3.2	102	15	15	18	18	18	18
Science	7.3	234	42	42	36	42	36	36
Geograph.	2.3	75	21	12	12	12	18	0
Econ/Comm.	3.7	117	15	18	24	24	18	18
Legal	0.2	6	0	6	0	0	0	0
<b>Total</b>	<b>52.3</b>	<b>1,674</b>	<b>251</b>	<b>229</b>	<b>282</b>	<b>300</b>	<b>300</b>	<b>312</b>

\* 32 periods per cycle

# per cycle

**Table 5.6**  
**Staffing and Subject Period Allocation - 1990.**

Subject	No. of Teachers*	Total No of Periods#	Periods Per Year					
			12	11	10	9	8	7
Art	2.6	83	9	6	12	6	20	30
Music	2.3	74	6	12	0	6	20	30
Drama	0.4	12	0	0	6	6	0	0
English	6.8	219	27	30	36	36	48	42
History	2.7	87	21	24	12	12	0	18
Liv. Skills	0.2	6	0	6	0	0	0	0
Gen. Stud.	0.2	6	6	0	0	0	0	0
Soc. & Cul	0.3	12	6	6	0	0	0	0
Computers	0.8	15	0	3	6	6	0	0
Careers	0.2	6	0	0	6	0	0	0
Life Skill	0.4	12	0	0	6	6	0	0
Industr. Arts	5.1	163	18	24	36	36	29	20
Languages	1.4	45	0	6	12	18	9	1
Maths	7.2	231	36	33	42	42	36	42
P.E/Health	2.4	78	0	0	0	18	30	30
Religion	3.1	99	12	18	18	18	18	15
Science	6.8	216	36	42	36	36	36	30
Geograph.	2.4	78	15	18	6	12	15	12
Econ/Comm	2.8	90	15	12	24	24	15	0
Legal	0.0	0	0	0	0	0	0	0
Total	47.9	1,532	207	240	258	282	276	269

\*32 periods per cycle

# per cycle

A superficial analysis of these tables indicates that there has been an increase of 4.4 full time equivalent teachers. (It should be noted that, at Edmund Rice College, the full time equivalent teaching load was 32 periods per cycle of the timetable.) It is a more involved problem to assess what proportion of this increase is attributable to the implementation of the new model. Table 5.7 reveals the full time equivalent teacher requirements of the College for 1991 and 1990.

**Table 5.7**  
**Full-Time Equivalent Teacher Requirements**

	7	8	9	10	11	12
1990	8.4	8.6	8.8	8.1	7.5	6.5
1991	9.8	9.4	9.4	8.8	7.2	7.8
Change	1.4	0.8	0.6	0.7	-0.3	1.3

The increase in teacher requirements in Year 7 is a direct consequence of the increased enrolments resulting from a policy of growth facilitated by the implementation of the new model.

The increased teacher requirements in Years 8, 9 and 10 result from a combination of increased student numbers and an increase in the number of classes that were run on each line of the timetable. For example, the increase in Year 9 of 18 students led to the running of an additional Science class. The average number of students in a Year 9 Science class in 1990 was 34.4.

Although 18 additional students do not constitute an extra class by themselves, the marginal increase of 3.6 students to each existing class was great enough for the College Administration to make the decision to form a sixth class.

The question arises then, is the marginal cost of this extra Science class a cost attributable to the implementation of the new model or is it a cost that the College would have had to bear anyway?

This cost will be included in an analysis of the extended hours model. The adoption of the model led the College Administration to believe that it would have been in a better financial position to meet such additional costs and hence would influence marginal decisions such as the formation of extra classes. A similar argument holds for the other additional classes run in Years 8, 9 and 10.

Hence an examination of the additional personnel costs incurred as a result of the introduction of the extended hours model has been calculated to include the provision of an additional 3.5 full time equivalent teachers. In real terms, however, the additional cost was greater than this figure. This was due to the fact that the staffing of Edmund Rice College allowed for inbuilt relief. This factor inflated the actual additional teacher requirement to 3.7 teachers. An allowed cost of \$40,000 per teacher yields a total cost of \$148,000.

The new model also led to changes in the management structure of the College. There was no additional cost for the position of Principal. The salary paid, according to award conditions was at the level of non-teaching principal for a school of 900 plus. The First Assistant to the Principal was, under the new system, to be paid at the award rate level of non-teaching principal of an equivalent secondary school of between 1 and 300 pupils. Under 1991 award rates this would result in an additional cost to the College of \$1,805 per annum.

Within the new management structure, two additional positions of Director of School Certificate Studies and Director of Higher School Certificate Studies were established. These new positions of responsibility replaced the existing position of Second Assistant to the Principal. The two positions incurred an additional net cost to the College of \$7,762.

An additional Subject Co-ordinator position was also established in 1991. The Fine Arts subject department was split into the two separate departments of Modern and Classical Languages and Creative Arts. There was pressure for this change for two reasons. Firstly, the increased number of classes offered in these classes meant that a single department managed by one person would be undesirable. Also, under new regulations proposed by the Board of Secondary School Studies in New South Wales, the particular subject areas of languages, music and art would undergo significant growth from 1992. The College Administration recognised these pressures and opted to form an additional managerial position. The cost to the College was \$3,708.

As a result of the growth of the College population and in anticipation of imminent teacher award restructuring, three new positions of responsibility were created, to commence at the beginning of 1991 and to be trialled for one year. These positions were to be known as Assistant Co-ordinators. The total cost to the College was \$5,561 per annum.

In 1991 there were no additional personnel costs, other than those outlined directly associated with the implementation of the new model. Anticipated additional staff requirements in areas such as office staff and student services were not realised. In each case a rearrangement of working hours resulted in no additional costs.

A summary of personnel costs resulting from the implementation of the new model is shown in the Table 5.8 below.

Table 5.8

Summary of Personnel Costs

Cost	Value (\$)
Principal	0
Deputy Principal	1,805
Studies Director	7,762
Subject Co-ordinator	3,708
Assist. Co-ordinator	5,561
FTE Teachers	148,000
Office	0
Student Services	0
Groundsmen	0
Total	166,836

2. Miscellaneous Costs

In addition to the personnel costs, there were also increases in the cost of utilities, cleaning, teaching expenses and materials, levies and other miscellaneous items.

The College Administration were required to pay certain levies to central bodies. These included:

- \$29.00 per student per annum to the Christian Brothers order,
- \$3.60 per student per annum to the Catholic Education Commission,
- \$3.25 per student per annum to a central government body in payment for a schools copyright licence.

The additional cost of electricity was estimated not to exceed \$100 per month. (This small additional cost probably is indicative of the poor energy conservation

practices of most schools, thus generating an abnormally large electricity bill during “normal” operating hours.)

The additional cleaning costs are a result of the extra buildings to be cleaned, not a result of extended hours of usage. Contract cleaners now clean the College in the morning before school, rather than after school as done previously.

An estimation of additional costs involved in providing extra teaching materials and additional teaching expenses as well as paying other sundry costs, was made. The figure derived was \$240 per additional student per year. In 1991, using the figure of 60 additional students as a result of the implementation of the new model, this miscellaneous expenses figure totals \$14,400.

### 3. Facilities

The first stage of the building plan outlined earlier in this paper had an estimated cost of \$1.1 million. This capital cost can be annualised by estimating an average of the combination of depreciation and interest on the undepreciated portion over the projected life of the facility.

The formula for annualising the cost of the facility is given by:

$$CA = \frac{C1 \times r (1+r)^n}{(1+r)^n - 1}$$

Where :      CA is the annualised cost of the facility  
                   r is the interest rate  
                   n is the projected lifetime of the facility  
                   C1 is the initial investment in the facility

In calculating the annualised cost of Stage 1 of the building program proposed by the College Administration, the following values were used:

- C1 = \$1.1 million - the estimated cost of Stage 1
- r = 12.5% - based on the current rate of interest subsidy determined by the NSW Government for approved building loans
- n = 25 years - an "average" building lifetime in an educational institution.

Therefore,

$$\begin{aligned}
 CA &= \frac{1.1 \text{ million} \times 0.125 (1.125)^{25}}{(1.125)^{25} - 129} \\
 &= \$145,138
 \end{aligned}$$

Therefore the annualised cost of the proposed Stage 1 of the building program was \$145,138.

#### 4. Furnishings and Equipment

The new buildings also required furnishing and equipment. The actual cost of these factors was estimated to be \$80,000. This cost can be annualised in a similar way as was the cost of the building construction. The anticipated lifetime of the furnishings and equipment was 8 years.

$$\begin{aligned}
 CA &= \frac{80,000 \times 0.125(1.125)^8}{(1.125)^8 - 1} \\
 &= \$16,387
 \end{aligned}$$

Therefore the annualised cost of furnishing and equipping Stage 1 of the building project was \$16,387.

#### 5. Fees and Government Subsidies

##### - Income Generated

In order to establish the net cost of implementing the new model, the annualised costs must be offset by any income generated by the process.

Each additional student enrolled at Edmund Rice College attracts income from three different sources:

(a) **Tuition Fees**

- Tuition and bookhire fees are paid by parents
- The 1991 rate for students in Years 7, 8, 9 and 10 was \$720 tuition fees plus \$45 book hire fee
- The 1991 rate for students in Year 11 was \$960 plus \$45 bookhire fee
- The 1991 rate for students in Years 7, 8, 9 and 10 was \$720 tuition fees plus \$45 book hire fee
- The 1991 rate for students in Year 12 was \$720 plus \$45 book hire fee. (Year 12 students were only charged fees for the three full terms they attended school prior to their Higher School Certificate Examinations.)

(b) **State Government Grants**

State Government funding is paid to the College on a per capita basis. The 1991 level of State Government funding was \$936 per student.

(c) **Commonwealth Government Funding**

Commonwealth funding is paid to the College on the basis of its funding category. (See Appendix 4 for details of Commonwealth Government funding for NSW non-Government schools) Edmund Rice College is currently a Category 11 school which attracts funding from the Commonwealth Government at a rate of \$1,978 per student per annum. There was also an additional component of \$123 per student paid in 1991 to compensate for price rises in educational inputs such as teacher salaries.

Table 5.9 summarises these income figures.

Table 5.9  
Summary of Income Figures

Income	Value Per Student	Total Value for 60 Additional Students
<b>Fees</b>		
Tuition	720	43,200
Bookhire	45	2,700
<b>Grants</b>		
State Government		
Per Capita	900	54,000
Book Allowance	36	2,160
Commonwealth Gov.		
General	1,978	118,680
Additional	123	7,380
<b>Total</b>	<b>3,802</b>	<b>228,120</b>

Calculation of Net Costs

1.	Costs :	Personnel	-	\$166,836
		Miscell.	-	14,400
		Utilities	-	1,200
		<b>Total</b>	-	<b>\$182,436</b>

Therefore, the additional cost per student is equal to

$$\frac{182,436}{60} = \$3,041$$

2. Income : Total = \$228,120

Therefore, the additional income generated per student is equal to

$$\frac{228,120}{60} = \$3,802$$

3. The net figures therefore reveal that the additional 60 students actually represented a positive source of income. Using the annualised figures it has been shown that the 60 additional students generated in 1991 a positive figure of \$761 per student. This yields a net annual gain of \$45,660 that could be used to offset the annualised cost of Stage 1 of the building program.

Annualised cost of building program	:	\$161,525
Less credit generated by new model	:	\$ 45,660
		<hr/>
		\$115,825

Therefore, the annualised cost of the building program per student after the implementation of the extended hours model was:

$$\begin{aligned} & \frac{115,825}{995} \\ &= \$116 \text{ per student} \end{aligned}$$

**Comparison with Alternative 2 : Keeping Student Population Constant**

If the extended hours model had not been implemented then places for the additional student population would not have been made available. The total student population would have risen marginally due to the net growth in Years 11 and 12. The expected student population would have been 935.

The annualised cost per student of Stage 1 of the building program would have been:

$$\begin{aligned} & \frac{161,525}{935} \\ &= \$173 \end{aligned}$$

This figure is significantly higher than the one obtained using the extended hours model. The difference is given by:

$$\begin{aligned} \text{Difference} &= \$173 - \$116 \\ &= \$57 \end{aligned}$$

This figure represents a difference of 33 per cent of the cost per student if the extended model had not been implemented.

*The results of this analysis demonstrate that, of the two alterntaives that the College Administration considered in order to assist in the funding of a building program, the option of extending the operating hours of the College was the most financially viable.*

The additional costs per student incurred due to the building program would have to be financed by the College by:

- (a) additional loans and a reorganisation of existing expenditure patterns in order to cover the additional loan repayments,
- (b) an increase in student fees,
- (c) a combination of both of the above.

Using the annualised cost of the building program incorporating the extended hours model, the increase of \$116 per student would have led to a possible fee increase of 16%.

Using the annualised cost of the building program without utilising the new model, the increase of \$173 would have led to a possible fee increase of 24%.

Thus, the extended hours model has led to a potential saving of 8% for parents of students attending the College. A saving of this order is very significant, especially in the very harsh economic circumstances facing the College community in the 1990s.

**Extrapolation of the Cost Analysis Results**

An extrapolation of the cost analysis previously detailed can be made in order to predict the long term financial implications of the extended hours model for Edmund Rice College.

A forward projection of the future enrolment figures is provided in Table 5.10. Some features of this table are:

- The smaller student numbers in Year 10 in 1990 and 1991 will limit total student population growth until the beginning of 1994. This factor resulted in a small net student population growth in 1992.
- The optimum size of then student population in each junior academic year has been set by the College Administration to be approximately 195. This figure was deemed to be most desirable after the College’s experience with a larger Year 7 intake of 205 in 1991.

The junior school population will grow to 780 by 1994.

- The future size of the senior section of the school is more difficult to predict due to external influences such as employment trends and government policy. College Administration estimates that the senior student population will reach a maximum level of approximately 280 by 1994. The growth in the senior section of the school will represent the largest proportion of total student population growth.

**Table 5.10**  
**Projected Student Population**

Year	Academic Year					
	7	8	9	10	11	12
1990	177	178	172	167	140	92
1991	205	192	190	166	124	118
1992	193	200	186	193	133	105
1993	195	195	200	190	150	120
1994	195	195	195	200	150	130
1995	195	195	195	195	150	130

It may be argued that the school would have had to absorb the increase in senior student numbers regardless of the implementation of the extended hours model. Although this may have been true, figures shown earlier in this chapter revealed that any such expansion in student numbers would have led to further compromises in the provision of learning facilities. Other, less desirable, options such as increased class sizes, reduced subject options and restricted enrolments may have been adopted.

The implementation of the extended hours model did, however, allow the College Administration to actively encourage the growth in student population rather than passively having it thrust upon them. It is in this context that the growth in senior student numbers can be considered to have been positively generated by the operation of the extended hours model.

Table 5.11 indicates the net growth figures for total student population.

**Table 5.11**  
**Net Student Population Growth**

Year	Growth
1991	60 (actual)
1992	15 (actual)
1993	40 (estimated)
1994	10 (estimated)

Table 5.12 indicates the anticipated net income generated by the operation of the extended hours model. These figures are derived from the results of the cost analysis detailed previously in this chapter which revealed that the operation of the extended hours model resulted in a net income gain of \$761 per student.

Table 5.12

Projected Net Income Generated by the Extended Hours Model

Year	Income Generated (\$761 per student)
1991	\$45,660
1992	\$57,075
1993	\$87,515
1994	\$95,125

Using the annualised cost of the building program pursued by Edmund Rice College, (\$161,525), the annualised cost per student after the implementation of the extended hours model can be calculated by dividing the net cost, (annualised building cost minus net income generated by the model), by the student population. Table 5.13 reveals these figures.

Table 5.13

Annualised Building Cost per Student

Year	Annualised Building Cost Per Student
1991	\$116
1992	\$103
1993	\$ 70
1994	\$ 62

These figures clearly highlight the financial savings generated by the operation of the extended hours model. The final annualised figure of \$62

represents a saving of 64% on the annualised figure that would have been obtained if the extended hours model had not been implemented.

### **Implications**

The following conclusions can be drawn from the preceding cost-analysis:

1. Following the implementation of the extended hours model, the school is in a better position to finance a necessary building program.
2. Utilising the extended hours model, the College will be able to cater for a student population of at least 1,100 students while only providing school classroom space considered adequate, under governments guidelines, for a student population of 800 - 1,000.
3. Should community economic circumstances change and projected student retention rates not be achieved, the College will not have been committed to unnecessary capital outlays.
4. The greatest proportion of projected student population growth is in the senior section of the College. Utilising the extended hours model, it is during the hours when the senior students are at the school that the College has the greatest additional classroom capacity.
5. In the absence of an enforced building program, the cost-analysis has revealed that the extended hours model has the potential to be income generating. Thus, a school may consider adopting this model in an effort to increase their existing plant capacity without pursuing a building program. The increase in plant capacity may be followed by an increase in student population.
6. This analysis has revealed that, in the absence of a building program, costs are restricted to personnel. These personnel costs, in turn are linked directly to changes to the size of the student population. It is feasible to

project from this analysis that the extended hours model could be implemented in a school that intended to keep its population static at relatively no cost. This factor enhances the potential applications of the model. Schools may wish to implement the model in order to gain flexibility in the availability of its resources.

This chapter has investigated only the financial aspects of the extended hours model adopted by Edmund Rice College. In order to ascertain a more complete picture of the costs and benefits experienced by Edmund Rice College after implementing the innovation, a closer scrutiny must be made of the effects on the members of the school community.

# Chapter 6

## Survey Analysis

When implementing change in a school in order to solve a particular problem or series of problems, care must be taken to ensure that the innovation does not simply shift the burden to a less conspicuous part of the school or school community. In order to analyse effectively the costs and benefits of a particular innovation, careful investigation should be carried out by the school administrators to identify all the potential and actual costs, not just the obvious and immediate ones. This initial investigation should be supplemented by follow-up studies in order to ascertain whether new, unforeseen problems have arisen or whether anticipated benefits have accrued. Extensive surveys are not always possible but an effort in this direction must be made within the confines of the available resources.

Schools are primarily “people” places. It is the relationships and the interactions between members of a school community which are of ultimate relevance to any innovation. A change in school operating hours such as implemented by Edmund Rice College certainly had the potential to impinge upon the lifestyles of students, teachers and parents.

## Direction Suggested by Current Educational Research

Chapter 2 of this study presented an overview of relevant educational research that should be considered by school communities involved in organisational change. The factors highlighted in that chapter will provide the background to the following assessment of the impact of the extended hours innovation on the school community of Edmund Rice College. Surveys will be used as analytical tools to ascertain the attitudes of the staff, the parents and the students of the College to the organisational reform.

Some general areas that this analysis will cover will include:

- Has the innovation affected the level of commitment of staff, parents and students to the school’s goals and values?

- Does the college community have a clarity of purpose with respect to the innovation?
- Has the innovation impacted on the shared vision of the College community? That is, has it divided the parents, staff or students?
- Did the College community feel that they were sufficiently involved in the decision-making process?
- Was the level of communication satisfactory?
- How has the innovation impacted on the
  - collegiality
  - harmony
  - cohesiveness and
  - level of co-operation amongst the staff of the College?

Answers to these questions will be facilitated by investigating the following specific areas:

1. For teachers, an examination of attitudes to:
  - changes to hours of work
  - changes to work-load and professional expectations
  - changes to the administrative structure
  - changes to time spent travelling to and from work
  - changes to personal family arrangements
  - changes to relationships within the school . . .
    - between teacher/teacher and teacher/student
  - changes to promotion opportunities
  - overall level of acceptance of changes to working times
2. For parents, an examination of attitudes to:
  - changes in family arrangements
  - changes to their perceptions of the College's public image
  - their level of input into the development of the innovation
3. For students, an examination of attitudes to:

- changes to study times
- changes in time spent travelling to and from school
- changes to use of their leisure time
- changes to family arrangements before and after school
- changes to their expectations of the school
- their overall level of acceptance of the changes to school times

## **Methodology**

In order to obtain data concerning the attitudes of students, teachers and parents of Edmund Rice College towards the extended hours innovation, four separate questionnaires were administered. The target groups were:

1. Teachers
2. Students in Years 7 to 10
3. Senior students in Years 11 and 12
4. Parents

These groups were targeted because each were seen to be affected in a different way by the innovation and hence would be able to contribute responses from a unique perspective.

## **Sample**

It was determined that it was feasible in terms of available resources to survey the total population of the four sub-groups listed above. The decision was made in order to ensure that the study results were given every opportunity of accurately reflecting a representative view.

### Questionnaire Format

A combination of multiple-choice and free response questions was chosen for this particular set of questionnaires. This decision was made for the following reasons:

- Students were familiar with the multiple-choice method of testing. All the students of the College had experience with this method of question response since it had been used extensively in student tests and examinations previously administered by teachers to students of the College. It was considered, therefore, that the students would be more comfortable with this format.
- It was also considered the most suitable format for parents. Many parents of the College have limited understanding of the English language. If parents had difficulty in this area, students were asked to assist by reading the questions to them and explaining the method of response. Again, in such cases, it was important that the required answers were kept simple and that students were familiar with the mode of answering.
- Certain questions required individualised responses as well as a structured answer. Thus, interspersed throughout the questionnaires were opportunities for respondents to add more detailed and personal answers.

### Pilot Testing of Questionnaires

- Once the questionnaires had been prepared copies of each were given to three members of the College teaching staff for evaluation. In particular, the teachers were asked to consider
  - the appropriateness and correctness of the language used
  - the logical links between each question and the supplied responses
- After suitable adjustments were made trials of the student questionnaires were run by administering the surveys to a class of junior and a class of senior students. Three teachers also trialled the staff survey. A number of minor changes followed.

- The parent survey was trialled by administering it to the parents of one class of senior students and carefully searching the returns for any obvious problems. Feedback was asked for from any parents concerning difficulties in completing the survey. None were forthcoming.

### **Administering the Questionnaire**

- Beginning with Year 12, the senior and then the junior questionnaires were administered, one academic year at a time over a period of 5 weeks during October and November, 1991.
  - The student questionnaires were administered in classrooms and supervised by teachers of Edmund Rice College. The teachers were asked to insist on quiet from the students and to ensure that the students did not confer with each other. This instruction was given in order to minimise peer group pressure and hence assist in controlling the validity of the survey.
  - Prior to administering the surveys to the students the researcher discussed with all students, class by class, the reasons for the survey and the importance of their honest, personal responses to the overall evaluation of the extended hours project. The researcher was known to all the students and hence his legitimacy was recognised.
  - At the end of the period during which the students completed their questionnaires parent surveys were handed out. Students were requested to take these home and to ask their parents to complete them as soon as possible and to return the forms to the school via their son.
- All surveys contained a cover letter explaining the purpose of the questions. This cover letter was signed by the principal of the College, endorsing the exercise.
- The teacher survey was discussed during a staff meeting. Questionnaires were later placed in each teacher's internal mail-box and a container for returns was provided in the staff common room.

### **Experimental Control**

It must be stressed that this study does not provide an experimental control. That is, the survey responses indicate teacher, student and parent perceptions and not necessarily absolute cause and effect relationships between the results of the implementation of the extended hours model and attitudes highlighted by the survey responses. Some of the responses to the survey questions may have been similar prior to the implementation of the extended hours model. There is, in this particular school's case, no previous data available for suitable comparisons to be made.

This lack of existing data does pose some questions for the College Administrators when they are seeking solutions to particular problems. It may not always be clear as to whether the extended hours model is the cause of a particular problem or whether it has merely exacerbated an existing one. Any conclusions extrapolated from the survey data must be prefaced by this consideration.

Table 6.1  
Survey Returns

Students

Academic Year	8	9	10	11	12	Total
No. of Returns	172	181	127	110	96	686
% of Total No.						
in Academic Yr.	90	95	77	89	81	87

Parents

Academic Year	8	9	10	11	12	Total
No. of Returns	149	137	109	84	62	541
% of Total No.						
in Academic Yr.	78	72	66	68	53	68

Staff

No. of returns	54
% of total	
teaching staff	82

## An Analysis of Questions Common to all Survey Groups

### 1. Communication

Staff, parents and students all have a part to play in the schooling process. They are the collaborators: the “who” of effective schools. Meaningful communication between these participants is essential if a shared sense of purpose is to be developed.

School administrators are able to communicate daily with teaching staff and students. These groups have, therefore, potentially greater access to information relating to organisational changes affecting their shared workplace. General staff meetings, faculty meetings, lunch-room discussions, inservice days and school assemblies represent some available channels of communication utilised by the Principal of Edmund Rice College to keep his teaching staff informed and involved in the development of the extended hours model. An informed staff was then in a position to pass this information on directly to students in their care.

The flow of information to parents about a school’s educational programs is often less direct. Edmund Rice College utilised two formal modes of communication with parents:

1. *A weekly parent newsletter.* This method of communication had been in use at the College for a number of years. This newsletter was issued to each student and thus its effectiveness as a means of communication was dependent on either the child remembering to give the newsletter to his parents or the parent remembering to ask for it.
2. *Formal Parents and Friends meetings.* A number of special meetings were called to explain the proposals.

Informal communication channels (outlined in a previous chapter), operated within the community and greatly enhanced the dissemination of information.

The responses to the following question indicates the perceptions of the various groups within the school community concerning the effectiveness of the communication of information regarding the implementation of the extended hours model.

Table 6.2

Communication

*Do you think that you were given enough information last year to prepare you for the new arrangements at the beginning of this year?*

	Parent	Staff	Senior Student	Junior Student
(a) Yes	95.0%	87.0%	85.1%	90.1%
(b) No	5.0%	13.0%	14.4%	9.9%

The responses to this question indicate that the network of information dissemination regarding the details of the implementation of the extended hours model was perceived as being satisfactory by a significant majority of the College community.

It is interesting to note, however, that the two groups indicating the highest negative response, (i.e. staff and senior students), were also the groups that were most directly affected by the changes to teaching times. Some individual responses by teachers dissatisfied with the level of information received included:

- “I would have liked more time to go through it”
- “More details about the effect on staff”
- “More consultation”
- “More information about the objectives of what the changes were trying to bring about”

The most frequent complaint from senior students regarding quality of information related to travel arrangements. The following are representative of these queries:

- “Bus times and what route they would travel”
- “Bus situation was very unclear for some time”
- “More information on travel arrangements”

Other responses from senior students referred to the shortened lunch-break:

- “The break for recess is too small”
- “The amount and time for breaks during the day we learned only after a number of weeks at school”
- More about lunch breaks”

Both these areas of concern will be examined in more detail in a later section of this analysis.

These results indicate that school administrators considering implementing organisational change must be particularly sensitive to the quality and quantity of information transmitted to individuals and groups intimately affected by the change process.

2. Involvement in the Decision Making Process

It has been pointed out in an earlier chapter that parents of students attending Edmund Rice College were not directly involved in the decision-making process in the development of the extended hours innovation. This was a deliberate decision made by the College Administrators.

The question of increased parent involvement was put to both parents and teachers. The results are listed in the table below.

Table 6.3

Parent Involvement

*Should parents have had a greater say in decisions that were made regarding the new teaching hours implemented in 1991?*

	Parent	Teacher
(a) Strongly agree	13.0%	8.3%
(b) Agree	44.6%	31.3%
(c) Disagree	38.4%	50.0%
(d) Strongly disagree	4.0%	10.4%

From these results it can be seen that 58% of parents were in favour of increased parental involvement in the decision-making process. Forty percent of teachers would have supported this claim while 60% would have opposed the concept.

It is interesting to compare the teachers’ response to the question of increased parent involvement to their own desire for increased access to the decision-making process. The following table lists these results.

**Table 6.4**

**Teacher Involvement**

Should teachers have had a greater say in decisions that were made regarding the new teaching hours implemented in 1991?

(a) Strongly agree	23.5%
(b) Agree	45.1%
(c) Disagree	29.4%
(d) Strongly disagree	2.0%

These results indicate that the staff of the College were seeking greater empowerment in the area of decision-making.

The issue of decision-making processes is complex. Further investigation is required to ascertain the degree of participation that teachers and parents of the College seek. It is clear, however, from the results of this survey that the Edmund Rice College Community has much work to do in extending the opportunities for two-way communication between the staff, parents and the College Administration when significant proposals for organisational change are being developed. The results of this survey have shown that traditional assumptions concerning the desired levels of involvement in the decision-making process in schools must be carefully reviewed.

**3. The Perceived Effect on Staff/Student Interaction**

Teaching practices should take into account that all classes contain students with varying abilities, interests and backgrounds. As the ACER Report on Effective Schools (McGaw, Banks and Piper, 1991:5), states:

*“the challenge for teachers is to ensure that they deal with students in ways that do not limit the opportunities of any of them, take full account of what students bring with them to the classroom, and allow for flexible progression in learning.”*

In other words, teachers must have time to spend with each student as an individual. It is important that each group in a school community is confident that any organisational change will not have a detrimental effect on this goal. The following question and responses indicates the perception of the Edmund Rice school community as to the effect that the extended hours model has had on this factor.

**Table 6.5**  
**Teacher/Pupil Interaction**

Do you think that the new starting and finishing times this year will allow your son’s teachers to spend:

	Parent	Staff	Senior Students	Junior Students
(a) more time	15.9%	24.0%	35.5%	12.1%
(b) equal time	52.8%	16.0%	41.9%	41.9%
(c) less time	10.4%	56.0%	8.4%	22.9%
(d) undecided	20.1%	4.0%	14.3%	23.1%

A comparison of these results reveal specific differences of perception. The staff response indicates a very negative view of the effect of the innovation on time available for interaction with individual students.

Many senior students, who now find themselves studying in a quieter and less crowded environment have experienced what they perceive as more individualised treatment. They have clearly found the innovation a positive influence on the way they have been able to interact with their teachers.

23% of junior students have found the innovation to have a negative effect on their personal interaction with their teachers. A further 23% are undecided on how their personal communication with teachers is being affected. This result adds weight to the concerns of the teaching staff. It is the junior students that the staff felt have been most disadvantaged in terms of communication opportunities, particularly due to the shortened lunch break.

Parents have responded more positively, although 20% are still to make up their minds.

The overall responses to this question points to the fact that particular attention must be paid to monitoring the effects of any organisational change on the learning environment of the students. It is this learning environment that is of paramount importance to the effectiveness of schools. Structural changes must enhance this environment. Careful evaluative methods must be devised by individual schools proposing change in order to ensure conditions for learning are maintained.

4. Attitudes Towards the Changes

Commitment from all sections of the school community is necessary if an organisational change of the scale implemented at Edmund Rice College is to be effective. The following question attempted to investigate the existing attitudes within the school community to the extended hours project.

Table 6.6

School Community Commitment

Do you think that the changes to the school times at Edmund Rice College will be

	Parent	Staff	Senior Student	Junior Student
(a) only a temporary measure	8.1%	10.0%	6.3%	8.3%
(b) a sensible, long term solution	81.7%	86.0%	79.5%	78.7%
(c) a bad idea that should be abandoned	4.5%	0.0%	4.9%	5.4%
(d) a lot of fuss about nothing	5.7%	2.0%	9.3%	7.7%

The above responses indicate that the majority of members of the College community have accepted the innovation as an appropriate response to the needs of the school. It is also important that the innovation has been accepted as a long term proposition, not just a brief interruption to school life. This factor also increases the likelihood of patience from the school community during the teething stages of a project when problems will be identified and solutions sought.

5. Perceived Reasons for the Changes

Common understanding of the goal of an innovation can enhance the quality and effectiveness of its implementation. The following question attempts to investigate this factor.

Table 6.7

Reasons for Changes

What do you think has been the main reason for the changes to your son’s starting and finishing times?

	Parent	Staff	Senior Student	Junior Student
(a) to fit more students into the College	82.6%	98.8%	74.0%	81.3%
(b) to help finance the new building program	11.5%	6.3%	14.0%	9.2%
(c) to employ more teachers	0.6%	0.0%	1.0%	2.3%
(d) to reduce class sizes	5.4%	0.0%	11.0%	7.1%

The responses to this question indicate that consensus had been largely reached by the College Community regarding the need for the organisational change.

It must be pointed out, however, that an analysis of the reasons presented in an earlier chapter of this study do not correspond with the perceptions of the College community. The prime reason expressed by the College Administrators for implementing the extended hours model was in fact to finance a new building program. There appears to be a definite disparity between the administration's intent and the school community's perceptions. This difference may not be quite as startling as it appears on first reading.

Discussion with teachers concerning this question revealed that most were quite aware that fitting more students into the College was not an isolated goal of the extended hours model. Most were aware that a larger student population under the flexible hours model would allow the College to provide better facilities via a new building program. A number of parents also indicated this understanding by ticking both (a) and (b) on their survey answer sheets.

Further investigation is required, but it is possible that the disparity between administrative intent and community perception is a product of the question structure.

6. Overall Attitude to the Changes

Will a school community accept changes to traditional practices such as school hours? Will teaching staff be flexible in their approach to changes to established work practices? The following question investigated the Edmund Rice College school community response.

Table 6.8

School Community Attitudes to Changes

Considering your responses to all of the above questions, in general how do you feel about the new school starting and finishing times implemented this year?

	Parent	Staff	Senior Student	Junior Student
(a) I like them	46.9%	66.0%	60.0%	77.5%
(b) There is not much difference	29.3%	16.0%	14.1%	8.6%
(c) I don't like them	13.8%	6.0%	14.1%	6.9%
(d) I am undecided	10.0%	12.0%	11.7%	6.9%

The responses to the question above only indicate the answers that the Edmund Rice school community have given concerning this particular innovation. It is not possible to transfer with confidence this set of results to another school environment. The survey does indicate, however, that a school community can respond positively to organisational change if some degree of consultation is established.

**Staff Survey Analysis**

The following will provide a more detailed analysis of the responses of the College staff to the questions contained in the survey.

**1. Level of Satisfaction with New Working Hours**

The extended hours model, nearly one year after implementation, has received a mixed reaction from the teaching staff of the College.

Responses to the staff survey reveal a relatively positive response to the new teaching hours:

**Table 6.9**

**Staff Attitudes Towards New School**

**Starting and Finishing Times**

(a) like much better	66%
(b) not much difference	16%
(c) don't like as much	6%
(d) unsure	12%

The relatively small proportion of dissatisfied staff clearly reveals that the variation to normal working hours has not in itself been a negative influence on teacher harmony.

The distribution of the teaching staff across the extended working hours is shown in the table below:

Table 6.10

Distribution of Staff

Shift	Hours	Distribution
Morning	8.00 a.m. - 2.30 p.m.	52%
Middle	9.30 a.m. - 4.00 p.m.	13%
Afternoon	11.00 a.m. - 5.30 p.m.	24%
Mixture		11%

A measure of the level of satisfaction with the new working hours can be found by investigating the number of teachers who wished to alter their teaching hours from those that they were presently experiencing.

- 20% of the respondents (11 teachers) indicated that they would like to change their working hours the following year.

The following table indicates the nature of the requests for change:

Table 6.11

Staff Requests for Changes to Working Hours

	Morning	Afternoon	Middle	Mixture
Change from	4/11	4/11	2/11	1/11
Change to	1/11	1/11	6/11	3/11

It is interesting to note that the request for change indicates a desire for some staff to return to the old status-quo of teaching 9.00 a.m. to 4.00 p.m. The overall figures indicate that there is no great dissatisfaction with the new working hours and that the task of matching timetable requirements with teacher preferences regarding preferred hours of work is attainable.

The survey responses indicate that there is a small, but growing, demand for more flexible working times.

- 15% of the staff who responded to the survey indicated that they would prefer to work a mixture of shifts during a timetable cycle.

It must be remembered that the College timetable is a cyclic one. This means that each day of the cycle falls on a different day of the week. Thus, a teacher on a flexible shift arrangement would not necessarily have the same working hours on a particular day of the week in successive weeks. Despite the difficulties this may introduce into a teacher’s personal routine, the survey results indicate a growing demand for this arrangement.

Table 6.12 reveals the effect that the new teaching hours have had on teachers’ personal or family lifestyle.

**Table 6.12**

**Effects on Teachers’ Personal Lifestyle**

Have you found that your personal or your family’s daily routine has been:

(a) greatly disrupted	3.7%
(b) a little disrupted	20.4%
(c) virtually unchanged	25.9%
(d) made more convenient	50.0%

It is clear that, in the case of the teaching staff at Edmund Rice College, personal and family lifestyles were able to adapt to the new working hours quite successfully. Some of the more positive aspects related by the teachers included:

- Child-care arrangements were often made more convenient. Some teaching parents were able to spend more time in the morning caring for the needs of their family before leaving for work. Some teachers found that they were able to share the care of their children with their partners more conveniently under the new timetable arrangements. For example, one father can now stay at home in the morning to see his children off to school while his wife has to leave for work at an earlier hour. For another teacher finishing early allows him to be available to pick his young child up from pre-school in the afternoon while his wife is still at her work.
- Some teachers find that they are able to complete household tasks in the morning before school. Under the previous working hours it was often too late to complete these tasks after school.
- Finishing work early in the summer months is considered by many to be a great bonus.

## **2. Staff Perceptions Of Benefits For Students**

However, despite the overall acceptance of the change in working conditions, some negative trends become evident on analysis of the staff responses. Teachers appear to be unsure about the long-term benefits of the process for students. This factor is indicated by the results outlined in Table 6.13.

**Table 6.13**  
**Staff Perceptions of Benefits for Students**

Do you think that your students will benefit by the changes made to the College in 1991?

(a)	yes	54.9%
(b)	no	2.0%
(c)	unsure	43.1%

Although only 2% felt that the students would definitely not benefit from the changes, 43% were still unsure.

This, in itself may not be a worrying aspect for the College Administration. The Deputy Principal has been quick to point out a key point in the overall innovative process. This was that

*“the implementation of the changed timetable was only the initial phase in the overall project. The timetable change was meant to provide a framework from which the College could, over a longer period of time, reassess and redevelop its current organisational and teaching practices.”*

Thus, uncertainty at this initial stage of the project was seen as being a reasonable and even healthy response since it represented a view that teachers were looking for more than structural timetable alterations.

Although 87% of the teaching staff felt that they had been given enough information in order to prepare themselves for the new working arrangements, 69% felt that they should have had a greater say in decisions that were made regarding the new teaching hours implemented in 1991. This clearly represents

dissatisfaction with at least some of the decision-making processes within the College.

3. Staff Collegiality and Cohesiveness

By far the most negative comments from the teaching staff of the College were directed towards the effect of the new working hours on staff interaction with their colleagues:

- 85% of the staff felt that, as a result of the new changes implemented at Edmund Rice College, time available to communicate with their colleagues during the day had been reduced.
- 51% stated that time for communication with fellow teachers was, in face, *"much less"*.
- 15% stated that it was about the same as last year.
- No-one stated that the new timetable arrangements facilitated greater communication amongst staff.

Staff cohesiveness appears to have suffered under the new working conditions as Table 6.14 highlights.

**Table 6.14**  
**Effects on Staff Cohesiveness**

Do you think that, as a result of the new changes implemented this year, the staff has, in general

(a)	become more cohesive	0.0%
(b)	become more fragmented	81.6%
(c)	is equally as cohesive`	18.4%

There appear to be some specific causes of this apparent deterioration in levels of communication between staff. Many teachers in their open response

answers referred to the shortening of recess and lunch-breaks as a significant negative influence. Comments such as those listed below appeared frequently:

*"rushed lunches . . . indigestion"*

*"less time to socialise with the teachers"*

*"Not being able to inter-relate with some of the staff members who are on different shifts. There is insufficient time during the day to exchange ideas/views and generally debrief."*

*"more pressure time-wise - lunchbreaks too short"*

*"I have less time/opportunity to see teachers in my faculty"*

*"lunch is too short!"*

*"Communication amongst all staff members has been reduced. Democratic decision making is being reduced."*

*"The staff feels less cohesive overall. Small cliques are evident . . . this is not a good feature!"*

The new timetable arrangements have shortened the lunch-break, now referred to as Recess 2, from 40 minutes in 1990 to 20 minutes in 1991. It is certainly not difficult to see why teachers are dissatisfied with this aspect of the new arrangements.

The apparent reduction in teacher collegiality and opportunity for co-operative intercourse is potentially very detrimental to the effectiveness of Edmund Rice College. As Beare (1989:3), states:

*"Good schools do not burden either their students or their staff so heavily that time for enrichment, time to reflect, time to participate in recreation or artistic or professional or other educational pursuits are crowded out of the program."*

The research findings of Chubb and Moe (1990:90), in relation to the contribution to teacher collegiality have been outlined in an earlier chapter. Their

report clearly emphasises the need for effective schools to allow time for interaction between teaching colleagues.

*“In the better schools, teachers spend more time meeting with one another to co-ordinate instruction and matters related to it.”*

The importance of allowing teachers sufficient time to share ideas and to develop a sense of working together is further stressed by the ACER report on effective schools, (McGaw, Banks and Piper: 1991:9,10):

*“Some important professional development can occur within a school if opportunities are provided for teachers to learn from each other . . . Opportunities to work together are important if professional knowledge is to become shared knowledge and teachers are to become colleagues with a common purpose.”*

The extended hours model, according to staff survey responses, has had certain effects that have not positively contributed to the school being a “good” environment. The College Administrators must ensure that the areas of dissatisfaction identified in the analysis of the staff survey responses do not lead to a reduction in the level of staff morale.

Manefield (1988:51), states that:

*“the most urgent problem affecting schools at the present time is low staff morale.”*

This point is still very relevant in the 1990’s (for example, McGaw et. al. 1992). Manefield adds that there are a number of possible causes of this decline in teacher morale. Two specific ones relate directly to the Edmund Rice College staff experience:

- shortage of time
- change “shock”

The extended hours innovation, according to the responses to the staff survey, has exacerbated the pressures on teachers’ time. Couple this fact with the overall strain that the changed working hours may have imposed upon the staff and there is definite potential for deteriorating commitment to the innovation.

The need to allow sufficient time for staff interaction has been recognised by teachers themselves. As Scott (1990:92), states:

*“teachers themselves have identified the most important form of support for effective school and individual teacher development as peer support.”*

The results of this survey indicate that the College Administrators should consider taking remedial action in order to improve the quantity and the quality of time available to its teaching staff to interact with each other. Other institutions contemplating the introduction of the extended hours model should be sensitive to the possible effects it would have on the collegiality of their own teaching staff.

The dissatisfaction of teachers with the length of the lunch-time break has had further negative implications on the staff’s ability to spend time with individual students. Survey responses indicate that:

- 56% of teachers feel that the new starting and finishing times have permitted them to spend less time with individual students.

This response was not dependent on the particular shift that a teacher worked on: 54% of afternoon or middle shift workers and 58% of morning shift workers responded in this manner.

Many teachers expressed the feeling that the shortened lunch-break denied them time to deal adequately with minor classroom behavioural problems or to meet with students to offer them extra tuition. It also reduced meeting time for teachers involved in extra-curricular items such as debates, sporting teams, music or drama rehearsals.

There has been some debate amongst the staff of the College as to how much of the changing patterns of staff interaction has been attributable to the growth of the school experienced over the last few years. It has been queried as to whether the staff dynamic was changing prior to the introduction of the extended hours model and was a consequence of an expanding staff.

Regardless of the answer to the above question, the implementation of the extended hours model has focused the minds of the staff of the College on the problem of staff interaction. Any attempts to solve this problem will have to be made in the context of the existing working conditions and hence become a part of the overall evaluation of the project.

#### **4. New Career Opportunities?**

Two specific options that definitely did not exist for staff before the implementation of the extended hours model were:

- the availability of the Assistant Co-ordinator promotions position
- the proposal to offer paid overtime for teaching more than a normal teaching load.

The survey responses indicate a mixed reaction to both of these proposals.

**Table 6.15**

**Possible New Career Path**

Do you think that the position of Assistant Subject Co-ordinator that is being trialled offers you a practical new career path?

(a) yes	54.9%
(b) no	25.5%
(c) unsure	19.6%

The industrial arena of New South Wales is currently the scene for continued negotiations regarding the state-wide introduction of a version of this position. At Edmund Rice College the position involved duties that were negotiated between the Subject Co-ordinator and their appointed Assistant. One question that teachers asked was whether the position was viable without release from face to face teaching time. The survey results indicate that further analysis by the College Administration and its teaching staff must ensue before the position will become more widely accepted within the school.

The option of additional pay for a voluntary increase in teaching load had not been implemented in 1991. The College Administration still viewed the proposal as a viable option for the future.

**Table 6.16**

**Additional Classes - Extra Pay**

Do you think that being paid extra to voluntarily teach an additional class on top of a normal teaching load is a desirable alternative for teachers wishing to supplement their income?

(a) yes	42.3%
(b) no	30.8%
(c) unsure	26.9%

Again, the large proportion of staff who responded that they were unsure of this proposal indicates that more time must be spent by the College Administrators and their teachers clarifying the details and implications of this proposal.

## Analysis of Student Responses

Fullan (1991:189), points out that:

*“Effective change in schools involves just as much cognitive and behavioural change on the part of students as it does for any one else.”*

The extended hours innovation adopted by Edmund Rice College had a significant impact on its students. The change in teaching hours affected directly two specific areas:

- (i) Travel arrangements to and from school and hence the effective length of their school day.
- (ii) Their homework/study routines.

Both of these factors have the potential to influence student attitudes towards school and hence alter the culture or ethos of the College. The following analysis of student responses to a number of survey questions will reveal any relevant changes.

### 1. Travel

As indicated in an earlier chapter, a major concern for the administrators of Edmund Rice College was the continued provision of adequate transportation to and from school for the students of the school. The responses to both the Junior and Senior Student Surveys indicate the great dependence students of Edmund Rice College have on bus transport.

- 69% of junior students and 58% of senior students travel by bus to school each day.

This great reliance on bus transportation affects many schools and it is important to highlight the attitude of the members of the school community

towards the altered travel arrangements bought about by the changes to required attendance times.

Table 6.17 summarises responses to a question concerning the perceived convenience of the new travel arrangements. The responses to the question, which was common to both student and parent surveys, indicate that the new travel schedules have been, in general, positively received.

**Table 6.17**  
**Convenience of New Travel Arrangements**

Do you find the travel arrangements	Junior student	Senior student	Parent
(a) more convenient	22.1%	24.4%	20.4%
(b) about as convenient	49.1%	34.4%	58.0%
(c) less convenient	21.3%	39.0%	19.1%
(d) not sure	7.6%	2.0%	2.6%

Clearly, twice the proportion of senior students than junior students have found their travel arrangements less convenient. The extended hours model adopted by the College altered the attendance hours of the senior students far more significantly than it did those of the junior students. It is not surprising that the senior students have had more difficulty adjusting.

It is significant, however, that 78% of parents have found that the extended operating hours of the College have not adversely affected their sons' travelling arrangements. This perception was not, however, evenly distributed as Table 6.18 indicates. Parents of students in Years 11 and 12 were clearly less satisfied with the new travel arrangements for their sons. The average figure of 35% for parents of senior students finding the travel arrangements less convenient is comparable with the figure of 39% obtained from the responses of the senior students themselves.

**Table 6.18**  
**Detailed Parent Responses to Question of Convenience of Travel Arrangements**

Do you find the travel arrangements

	Year 8	Year 9	Year 10	Year 11	Year 12	Total
(a) more convenient	25.2%	20.1%	18.9%	11.9%	23.4%	20.4%
(b) as convenient	57.1%	64.2%	65.8%	53.6%	39.1%	58.0%
(c) less convenient	12.9%	12.7%	14.4%	33.3%	35.9%	19.1%
(d) not sure	4.8%	3.0%	0.9%	1.2%	1.6%	2.6%

Further analysis of the survey data allows an explanation of specific causes of dissatisfaction with the new travel arrangements to be made. An examination of individual responses of senior students reveals a link between convenience of travel arrangements and the geographical location of student homes. The following table summarises these results.

**Table 6.19**  
**Link Between Convenience of Travel Arrangements and Home Location of Senior Students**

Location	Student response concerning convenience			
	more/same		less	
	No.	(%)	No.	(%)
North of Wollongong	25	(68)	12	(32)
Woll., Nth Woll., etc.	50	(79)	12	(21)
Port Kembla, Warrawg etc	11	(37)	19	(63)
Unand., Farmb., Dapto	29	(54)	22	(46)
Warilla, Shellh., etc.	6	(33)	12	(67)
South of Shellharbour	0	(0)	3	(100)

Although those inconvenienced by the new travel arrangements are spread throughout the school catchment area, proportionately more senior students in the

southern suburbs have had their travel arrangements adversely affected. This situation is largely due to the poorer community transportation facilities that exist in the southern suburbs of Wollongong. (As stated in an earlier chapter, under the new travel arrangements the senior students were more reliant on the existing community bus service network rather than the provision of school specials.)

This may be a particular regional problem, unique to the school community of Edmund Rice, but the results do highlight an area of impact that must be considered by the school administration and be placed on the cost side of the ledger. This factor should also be considered by any school contemplating adapting the extended hours model to their own particular situation. All students at Edmund Rice College have provided for them suitable alternatives for transport to and from school. Changes to the efficiency of these transportation provisions, however, must not be of such proportions as to wipe away any anticipated advantages of the extended operating hours of the College.

A related area for the senior students is the length of their school day. This includes travelling time as well as formal school time. An analysis of the responses to the questions from the senior student survey outlined in Tables 6.20 and 6.21 allows a calculation of the impact of the extended hours project on the length of a typical school day for senior students at Edmund Rice College.

86% of senior students arrive home within one hour of the conclusion of lessons at 5.20 p.m. 14% of senior students spend more than one hour travelling home. Two thirds of these students who arrive home more than one hour after school finishes also arrive at school before 11.00 a.m., more than one hour before school commences. Thus approximately 10% of students have a school day that spans almost eight hours. This time does not include homework or study time.

It was the intention of the College Administration to shift the school day for senior students to a later time. It was not their deliberate intention to lengthen the school day for these students. However, the lengthening of the school day has, in fact, been the experience of 36% of the senior students. (see Table 6.22). This

highlights again the need for evaluative studies of school innovations to look for indirect and often hidden consequences and not just seek verification of intended outcomes.

**Table 6.20**

**Morning Departure Times for Senior students**

What time do you usually leave home to go to school each morning''

(a) before 10.30 a.m.	26.4%
(b) between 19.30 a.m. and 11.00 a.m.	21.2%
(c) between 11.01 a.m. and 11.30 a.m.	35.1%
(d) after 11.30 a.m.	17.3%

**Table 6.21**

**Evening Home Arrival Times for Senior Students**

What time do you usually arrive home each evening?

(a) before 5.45 p.m.	32.2%
(b) between 5.45 p.m. and 6.15 p.m.	54.1%
(c) between 6.16 p.m. and 7.15 p.m.	12.7%
(d) after 7.15 p.m.	1.0%

**Table 6.22**

**Senior Student Perceptions Concerning The Length of the New School Day**

How would you compare the time you spend travelling to and from school this year with the time you spent travelling last year?

(a) it takes much longer	36.3%
(b) it takes about the same time	43.1%
(c) It is much quicker	15.2%
(d) not sure	5.4%

Tables 6.17 and 6.23 outline responses to similar questions from the junior tudent surveys.

**Table 6.23**

**Junior Student Perceptions Concerning the Length of the New School Day**

How would you comapre the time you spend travelling to and from school this year with the time you spent travelling last year?

(a) it takes much longer	11.2%
(b) it takes about the same time	54.9%
(c) it is much quicker	22.4%
(d) not sure	11.6%

Comparison of travel arrangements for junior students indicates that only 11% of students find their travelling time extended. Conversely, 22% find their travelling time much quicker. Only 21% find the travel arrangements less convenient than those for the previous year. This is half the figure obtained from the responses of the senior section of the school. Overall, there has been a net improvement in travel time for junior students and a relatively neutral net result for convenience compared with the previous year.

Parent response in relation to the convenience of travel arrangements for junior students was equally as positive. Table 6.18 revealed that 84% of parents with students in the junior years found the travel arrangements for their sons more or equally convenient as those of the previous year. Only 13% found the new arrangements less convenient.

It is clear from the results of the surveys that there are two particular areas that should be carefully investigated and monitored by any school administrator considering implementing the extended hours model:

1. the impact of the new teaching hours on the travel arrangements of the members of the school community,
2. the impact of the extended hours model on the length of the school day for the students.

## 2. Study Habits

One area that warrants investigation is the potential impact of the extended hours model on student study habits. Edmund Rice College has a policy that homework is to be set by each class teacher every day.

The current educational literature reveals particular views as to the place of homework in an effective school. Beare (1989:3), in his outline of characteristics of effective schools states clearly that:

*"Good schools . . . set homework and follow up to see that it is done."*

The ACER paper on effective schools (1991:12), agrees with Beare's point:

*"An effective school ensures that appropriate homework is set for students. Students learn more in schools that set homework, provided that the*

*homework is a worthwhile complement to classroom learning. As well as providing extra learning time, homework offers a form of communication between the school and the home."*

Chubb and Moe (1990:96), caution reformers who urge teachers to assign their students more homework in an effort to lift student achievement. Their study did verify that high performance schools did assign more homework than low performance schools. The difference, however, amounted to only two and one half minutes per subject per night, or, in other words, an additional one hour of homework per week.

It is evident that the administration of Edmund Rice College did perceive homework as an essential part of its role as an effective school. Any innovation that impinges on this area of student learning certainly warrants further analysis. The survey indicates that the extended hours innovation has led to a significant shift in homework patterns for both senior and junior students. Tables 6.24, 6.25 and 6.26 detail the junior student responses that relate to changes in homework/study routines.

**Table 6.24**  
**Homework Times for Junior Students**

When do you usually do your homework?

	Year 8	Year 9	Year 10	Total
(a) while at school	3%	7%	4%	5%
(b) between 2.00 p.m. and 4 .00 p.m.	43%	37%	26%	36%
(c) between 4.01 p.m. and 6.00 p.m.	21%	25%	20%	22%
(d) after 6.00 p.m.	33%	31%	50%	37%

**Table 6.25**  
**Changes to Junior Student Homework Patterns**

*Is this time different from when you did your homework last year?*

	Year 8	Year 9	Year 10	Total
(a) yes	60%	51%	31%	49%
(b) no	40%	49%	69%	51%

**Table 6.26**  
**Convenience of New Homework/study times**

Have the new starting and finishing times this year made your homework/study routine

	Year 8	Year 9	Year 10	Total
(a) more convenient	70%	68%	50%	64%
(b) equally as convenient	18%	18%	34%	22%
(c) less convenient	5%	6%	6%	5%
(d) undecided	7%	8%	11%	9%

A summary of these changes suggests that:

- 36% of junior students utilise the time between 2.00 p.m. and 4.00 p.m. to do their homework. In previous years the students would have been either at school or travelling home from school during this time.  
Year 10 students appear to have different study routines from Year 8 or Year 9 students. Half of the Year 10 respondents do their homework after 6.00 p.m.
- 49% of junior students indicate that they are doing their homework at a different time from that used in previous years. Again, Year 10 students appear to have experienced the least change in study/homework

routines with 69% indicating that their homework pattern has not changed.

- 64% suggested that the new starting and finishing times have made their homework/study routine more convenient than in previous year4s. Only 5% indicated that the new times have made their study routine less convenient.

Year 10 students answered positively on this question with 50% revealing that their study routine has been made more convenient. Individual responses indicate that these students have been able to use the time between the end of the school day and 6.00 p.m. to pursue leisure activities such as visiting friends or sports training. This leisure time would have been much shorter under the old school timetable.

The impact of the extended hours project on the study habits of senior students has been even more profound. Tables 6.27, 6.28 and 6.29 list responses of senior students to the survey questions relevant to study habits.

**Table 6.27**  
**Homework Times for Senior Students**

When do you usually do your homework?

	Year 11	Year 12	Total
(a) in the morning before school	13%	14%	14%
(b) when you arrive home from school	10%	16%	13%
(c) a mixture of morning and evening	61%	43%	53%
(d) no set routine	17%	25%	20%

Table 6.28

Changes to Senior Student Homework Patterns

Is this different from when you usually did your homework last year?

	Year 11	Year 12	Total
(a) yes	76%	70%	73%
(b) no	24%	30%	27%

Table 6.29

Convenience Of New Homework/Study Times

Have the new starting and finishing times this year made your homework/study routing

	Year 11	Year 12	Total
(a) more convenient	76%	58%	68%
(b) equally as convenient	5%	16%	10%
(c) less convenient	13%	20%	16%
(d) undecided	6%	7%	7%

A summary of these results reveals:

- 73% of senior students utilise a different time to do their homework and study than in former years.
- 68% of students find the new starting and finishing times have made their homework/study routine more convenient than before.
- 67% of senior students do some or all of their homework and study in the morning before school.

The extended hours model has made available more free time in the morning for senior students. During the development stages of this project a number of teachers were sceptical about the way senior students would utilise this

morning time. Table 6.30 indicates the senior student survey responses to this question of time utilisation.

**Table 6.30**  
**Utilisation of Before School Time By Senior Students**

In general, how do you use the free time you now have in the morning under the new timetable arrangements?

	Year 11	Year 12	Total
(a) sleep longer	19%	38%	28%
(b) watch T.V.	5%	3%	4%
(c) do homework and study	63%	44%	54%
(d) recreation and exercise	13%	14%	14%

As shown above, 28% of students revealed that they spend the morning hours sleeping longer. Closer examination reveals that the figure is twice as large for Year 12 students as it is for Year 11 students. Perhaps a reasonable explanation for this feature is the fact that Year 12 students were used to a different system for the first year of their senior studies and hence were less flexible in terms of change in already established study habits. Year 11, however, experienced the timetable innovation as an integral part of their introduction to senior studies and were therefore able to incorporate the time changes into their overall transition from junior school to senior requirements.

Another explanation may be that the Year 12 students may be staying up later to study than they were previously. This would be due to the later start to their homestudy routine. Year 12 students, due to the pressures of approaching final examinations and heavier assessment commitments, would in general be spending longer hours studying than their Year 11 counterparts.

The survey responses have highlighted the fact that the changes to school hours of operation have significantly affected the home-study routines of the

students of Edmund Rice College. These changes to home-study patterns do not appear to be a negative consequence of the extended hours innovation. Many of the affects were in fact discussed by the staff of the College during the development stage of the innovation. It has hoped by the staff that as the new senior hours become more established, students will develop a greater variety of ways of effectively utilising the morning time before school.

### **Summary of Survey Analysis Results**

The analysis of the survey responses obtained from the school community of Edmund Rice College has yielded the following results:

- In general the level of communication between the College administrators and the parents, teachers and students was considered satisfactory.
- A substantial proportion of parents and teachers felt that they should have been allowed a greater involvement in the decision-making process.
- The College community have accepted the innovation as an appropriate response to the needs of the school. It has not had any adverse effect on the level of commitment of the staff, students and parents to the school's goals and values.
- The College community appears to have a clarity of purpose with respect to the innovation.
- The extended hours innovation has provided a more flexible working environment for teachers.
- Initially, the extended hours innovation has had a negative impact on the perceived level of staff cohesiveness and collegiality.
- Some students have had the effective length of their school day extended due to problems associated with transport to and from school.
- The changes to school hours have significantly affected the home-study routines of many students. These changes will require some adjustment on the part of students. For many students they have provided greater flexibility in possible patterns of study.

The survey responses have revealed a number of areas that should be carefully monitored by the College administrators. The responses have also given direction to points that could be addressed by the College community in order to improve its effectiveness in terms of the factors highlighted by the earlier review of relevant educational literature.

The following chapter will investigate some potential applications of the extended hours innovation in the wider educational community.

# Chapter 7

## The Extended Hours Model - Application in a Wider Context

The previous chapters of this study have concentrated on the specific details of the extended hours model at a micro-level. Emphasis has been placed on the potential for the model at an individual school level. This chapter will investigate the claim that, *if adopted on a wider scale, the extended hours innovation also has the potential, in many instances, to lead to a more economic utilisation of public resources.*

Administrators of school systems should also be aware of the advantages that can accrue at a systems level if the extended hours option is considered. The innovative school timetable should become another option educational policy-makers can consider when seeking to find the most effective ways of distributing the scarce educational dollar.

The following points are offered as examples of where the Edmund Rice experiment can provide a useful alternative to more conventional options. The ideas are offered for consideration and are meant to be neither exhaustive nor specific in details. They will, however, link the Edmund Rice concept with some specific problems facing the education system of New South Wales. These problems, in turn, are ones faced by educational administrators in other parts of the world.

### 1. Devolution and the Extended Hours Model

During the last decade of educational reform in Australia there has been an increasing recognition that individual schools had to be granted more autonomy. It was argued that principals, teachers and parents were better placed than central bureaucracies to respond and be adaptive to local needs. Two major government reports focusing on the New South Wales Education System preceded the devolutionary trend in that State.

A report by Dr. Brian Scott (Scott 1990), reviewed the efficiency and effectiveness of management structures and administrative procedures across the education portfolio in New South Wales. The Schools Renewal Plan proposed by Dr. Scott argued for fundamental reform of existing structures with a major devolution of responsibilities and authority to the Regional and school level. In 1989, the Government of New South Wales accepted the general principles of this plan.

A second review, chaired by Sir John Carrick, was presented to the Government in September 1989. It made particular reference to the Education and Public Instruction Act, 1987. The review raised issues concerning resource allocation within schools. Both of these reports indicate that resources are not being used optimally either at the whole system level or at the school level.

In exploring policy options in financing education in developing countries, the World Bank offers the following observations:

*"Typically school administrators are accountable not to parents and students but to central authorities, such as ministries of education. Since the cost of monitoring, inspecting, and enforcing detailed guidelines for individual schools is likely to be high, these ministries set norms, such as for the distribution of budgetary allocations between teachers' salaries and other inputs. If norms do not match the school's needs or the community's preferences, as often is the case, school administrators have neither the financial power nor the incentive to change them. As a result, the use of school resources is inefficient."*

(Financing Education in Developing Countries, World Bank 1986:10.)

The Scott Report recognises this problem and suggests that the New South Wales Government Schools Education system should be inverted from its top

down hierarchical structure and should put the school in the centre of a decentralised system. The Committee's recommendations included:

- expanded management responsibilities for individual schools
- a greater role in educational leadership
- increased financial delegations

The new structure proposed by the Scott Committee suggests that there is a need to increase the capacity of schools for self direction and self determination. This would be achieved by giving them more responsibility for:

- planning educational goals and priorities
- staffing
- financial control
- budgeting

The Committee of Review bases these reforms on four premises:

1. every school is different and therefore has different needs,
2. the best judge of those needs will usually be the individual school's teachers and its community,
3. schools will best meet their needs if they are enabled to manage themselves within budgets and in line with general policy guidelines,
4. the role of the system, if it is to be effective, must focus on providing support to schools and their leaders.

(Scott 1990:67)

Within the overall framework of government departmental goals each school is expected to develop its own school renewal plan. The Scott Committee suggests that this plan should outline the school's plan of action for achieving its goals over a five year period. These plans would indicate appropriate resource requirements, including staffing levels and financial plans.

The review of the Scott Committee found that one of the major constraints on effective management of schools in the past had been the principal's lack of control over financial resources. Under Scott's plan, each school is allocated an annual financial budget, the so called "*global budget*", calculated on a needs basis. Principals would be able to apply funds within broad guidelines of general policy framework according to their assessment of their school's needs.

The Scott Committee states that this devolution of financial management will:

*"enable funds to be spent more effectively on educational programs for the all round betterment of the school. It will replace the burdensome bureaucratic approval procedures of the past with purposeful deployment of available funds. It will lead to greatly enhanced ability of principals to shape the school's future and the quality of teaching and learning through more direct control over available resources."*

(Scott Report 1990:182)

Trends towards decentralisation have been internationally evident during the last decade as nations strive for an answer to growing economic dilemmas. The United States, Great Britain and Russia are all examples of governments seeking greater economic efficiency through the deregulation and a greater reliance on market forces. Australia and New Zealand mirrored this international trend in their efforts to deregulate the money market, privatise government agencies and restructure industry. Some argued that these initiatives would liberate the

economy from inefficient bureaucracies and lead to a more efficient and competitive economy.

Education became part of the overall restructuring process. In the United States, reformers looked towards school-based management to remove some layers of bureaucracy. There were many calls for teachers to assume a greater role in school policy decision-making (Bath 1988: Lieberman 1988). School districts in Hawaii, Chicago and Florida are examples of areas that sought improved efficiency through the school-based management option. (Walberg 1988: Olson 1987).

These examples of school-based management saw states and districts maintaining control over general policies and individual schools delegated responsibilities for the implementation of these policies. The schools were also given a certain degree of budgetary flexibility within general financial constraints. The principal and the school executive were given, within an overall bureaucratic framework, greater control over resources.

Other international examples of devolution in education systems include:

- In Britain secondary and primary schools are to be given control of their own budgets, including staff. School communities will be given the power to vote on the option of remaining under the control of the local education authorities or opting out to become "independent". (Furlong 1988).

The new education act in Britain specifically requires that all schools become self-managing. The new legislation requires that all Local Education Authorities hand major financial controls over to individual schools. As Brooksbank and Anderson, (1989:ix), state:

*"By 1993 LEAs will have had to implement their schemes delegating financial and managerial responsibilities to governing bodies of many schools. Then, the Act provides for major decisions (including staffing) affecting schools to*

*rest with governors where parents and representatives of the community will play a major role."*

- In New Zealand, the government has accepted the major recommendations of the Picot Report (Picot:1988), calling for the devolution of decision making powers to schools within an overall framework of national guidelines.

The outcomes that these committees of review are attempting to achieve through their policies of devolving certain aspects of government financial control to a local level need careful investigation.

The private school system in New South Wales may offer an existing model of local budgetary control that can provide an insight into the future of State schools. In particular a study of independent private schools would be appropriate because these 'global budget' criteria are already set in place in such institutions. An independent private school operates within the constraint of available finance, but its very independence allows its principal to pursue policies and innovations in the area of resource management that are based on the individual needs of their individual school.

In the private sector, people who run each school decide what they will teach, how they will teach it, who will do the teaching, how much to charge for their services and most other factors effecting the organisation and supply of the product they offer their clients. Students and parents then assess the offerings, reputations, and costs of the various schools and make their own choices about which to patronise. As Chubb and Moe (1990:30) state:

*"The key for success - for schools, parents and students alike  
- is having something to offer that people want."*

Independent private schools in New South Wales may provide suitable models for government schools seeking to come to terms with new responsibilities in the current devolutionary environment. Edmund Rice College has been chosen

as an example of an independent school that has attempted to respond to the perceived needs of its school community by initiating an innovative response to resource management problems. Edmund Rice College and the innovation of the extended hours project is an example of the type of resource innovation that may be implemented if the suggested global budget financial structures are available.

The crux of the arguments of the above mentioned educational reviews is that devolving financial management to a school level will increase the chances of innovation and increase the chance of more efficient financial management. The extended hours innovation of Edmund Rice College is a prime example of where the needs of the school, both financial and educational, can be met by allowing principals the scope to have some innovative managerial leeway.

## **2. School Closures and the Extended Hours Timetable**

Most education systems plan for capital expenditure by drawing upon demographic projections of the school age population. An education system's capital expenditure program involves such actions as acquisition of property, alterations and additions to school buildings and new school construction. The New South Wales Department of School Education develops a prioritised program of capital works based on its subjective judgement of relative need and urgency.

Total Australian school enrolments changed very little in the 1980s but the distribution of these enrolments within the system did change significantly. Table 7.1 indicates that there was a contraction of primary enrolments and an expansion of secondary schools up to 1987. There was also a marked trend to non-government schools. Projections of enrolments for 1990s show a steady expansion of primary and a contraction of secondary numbers until 1993. Secondary school enrolments should begin to rise again in the later half of the decade as the primary increase pushes through. These changing patterns have to be anticipated in order to allocate capital funds that will cater for future needs.

**Actual and Projected Full-Time Enrolments for Government and  
Non-Government Schools by Level of Education, Australia, 1972 to 1993**  
(Number '000 as at July each year)

	Primary (b)			Secondary (b)			Totals			
	Year	Govt	Non-Govt	Total	Govt	Non-Govt	Total	Govt	Non-Govt	Total
Table 7.1	1972	1451	363	1814	773	247	1020	2224	610	2834
	1973	1447	357	1804	788	254	1042	2235	611	2846
	1974	1452	357	1808	802	261	1063	2254	618	2871
	1975	1456	354	1810	834	266	1100	2290	620	2910
	1976	1475	354	1829	848	270	1118	2323	624	2947
	1977	1503	356	1859	846	274	1120	2349	630	2979
	1978	1517	360	1877	837	278	1115	2354	638	2993
	1979	1517	367	1885	819	283	1102	2336	650	2987
	1980	1508	376	1884	810	290	1101	2318	666	2985
	1981	1485	386	1871	814	302	1116	2299	688	2987
	1982	1455	394	1849	828	318	1146	2283	712	2995
	1983	1411	398	1809	870	337	1207	2281	735	3016
	1984	1352	401	1753	909	356	1265	2261	757	3018
	1985	1312	405	1717	919	370	1289	2231	775	3006
	1986	1290	410	1700	918	384	1301	2208	794	3001
	1987	1283	414	1697	914	394	1308	2197	808	3005
	1988	1291	423	1714	907	402	1309	2198	825	3022
	1989	1310	433	1743	884	404	1288	2194	837	3031
	1990	1327	443	1770	859	406	1265	2186	849	3034
	1991	1344	452	1795	840	408	1247	2184	860	3043
1992	1363	460	1823	827	411	1238	2190	871	3060	
1993	1381	467	1848	824	417	1240	2205	884	3089	

Source: Statistical Annex, 1991

Source: Statistical Annex, 1991

Table 7.1

Also further complicating the efforts of education planners to effectively and efficiently predict future capital needs is the fact that school location patterns will inevitably evolve over time in response to changing locations of families with school aged children. Table 7.2 highlights the changing enrolment patterns in New South Wales in the 1980s.

These changing demographic patterns have inevitably led to new school construction and school closures. During the period between 1981 and 1988, the New South Wales Department of School Education opened 138 new schools and closed 132 existing schools. This occurred during a time when enrolments in government schools declined by approximately 32,000. (Scott, 1990:202)

Closure of existing schools frequently invokes very emotive responses from school communities. A school often occupies a very special niche in a local community. Rational arguments involving statistics and financial alternatives do not always elicit sympathetic responses from communities. There are usually strong emotional ties and support by a school community for a school's physical structures. Although many of these problems can often be worked through by establishing effective communications channels, school closures are still, in many instances, traumatic experiences for communities. It is difficult to convince opponents of school closures that official motives are objective and are not merely bureaucratic interference or even political tradeoffs.

Table 7.2

**NSW Department of Education Student Enrolments by Region (Term 1, 1981 and 1989) ('000)**

<b>New South Wales School Region</b>	<b>Primary</b>			<b>Secondary</b>		
	<b>1981 Enrolmts</b>	<b>1989 Enrolmts</b>	<b>Change</b>	<b>1981 Enrolmts</b>	<b>1989 Enrolmts</b>	<b>Change</b>
Metropolitan East	78.0	58.2	-19.8	48.6	47.0	-1.6
Metropolitan North	69.3	58.2	-11.1	42.3	44.1	+1.8
Metropolitan South	60.3	59.5	-0.8	33.7	42.4	+8.7
West	85.0	72.6	-12.4	44.9	48.4	+3.5
Metropolitan West	48.0	42.7	-5.3	27.4	30.8	+3.4
Hunter	31.3	35.6	+4.3	19.6	26.9	+7.3
North Coast	22.9	19.0	-3.9	13.4	14.0	+0.6
North West	26.7	22.3	-4.4	15.6	16.2	+0.6
Riverina	43.9	39.7	-4.2	25.8	28.8	+3.0
South Coast	31.5	26.6	-4.9	18.7	19.4	+0.7
Western						
<b>New South Wales</b>	<b>496.8</b>	<b>434.4</b>	<b>-62.5</b>	<b>289.9</b>	<b>318.1</b>	<b>+28.0</b>

Source: NSW Department of Education

The New South Wales Department of School Education introduced a School Rationalisation Program that assesses the need for school closures where enrolments are declining. The New South Wales Auditor-General, (NSW Auditor-General Annual Report, 1989 Vol.3:76), states that this rationalisation program

*"... is necessary, in my view, in order to ensure the efficient and effective utilisation of one of this State's major resources."*

In many instances there is little alternative given to school communities other than to close schools that are experiencing declining enrolments. At first glance, the extended operating hours innovation may appear to be only designed to cope with expansion rather than contraction in student populations. In this environment it is possible that its introduction could lead to more rather than less school closures. However, an essentially important feature of the extended hours innovation adopted by Edmund Rice College is that it creates the capacity for a school to make more imaginative use of its facilities. Some of these options may include:

- *Becoming a target school for other surrounding secondary schools that are experiencing difficulty catering for increased retention rates in Years 11 and 12.* The extended hours timetable would give the school increased capacity in its senior section that would not exist under more conventional timetabling arrangements. The numbers may not have been sufficient in total in the local region to justify the establishment of a separate senior school. Some or all of the local schools may not have the capacity to absorb any increase in student numbers. The conventional response of educational planners would usually be to provide capital to build additional facilities in targeted schools. This would be an expensive program and a dubious use of resources, especially as senior numbers may fluctuate significantly over an extended period of time.

The extended hours timetable could be utilised as a temporary solution until student numbers in Years 11 and

12 are judged to be stabilised. It would give school administrators a longer period of time to assess the situation and come up with a long-term solution. This solution may involve retaining the extended hours option or it may entail the utilisation of a different alternative.

- In New South Wales there is currently an opportunity for secondary school students to study joint school/TAFE courses. The program gives senior secondary students the opportunity to take up vocationally oriented courses which are accredited by both the Board of Secondary Education and TAFE. Students continuing the TAFE courses after they leave school can gain advance standing in Trade or Certificate courses.

*The extended hours timetable could give the school with declining enrolments an opportunity to increase the utilisation of its resources by allowing secondary education and post-compulsory education to operate from the one campus.*

That is, extend enrolment opportunities to adults. Courses offered could be designed to cater for demand and available resources. Combination with TAFE institutions or activities would, in many instances, depend on the capacity for sharing specialised facilities. This arrangement would make available more flexible alternatives for senior secondary students by allowing them access to TAFE or adult education courses.

There are many other possibilities other than closing schools. The extended hours model offers alternatives that should be considered before schools are closed because of declining numbers.

### 3. Space Utilisation and the Extended Hours Timetable

By far the most common response of school administrators to increased enrolment pressures is to commit scarce resources to building new facilities. This is built on the mistaken assumption that the existing facilities are already being used to capacity and therefore those facilities must be expanded by the same proportion as the expected increase in enrolments.

*The Management Review of New South Wales Education* (Scott (1990:197), indicates that a significant gap in data exists in the area of utilisation of school buildings in New South Wales. Information giving details of gross or net usable space is not available. The report proposes that,

*"The lack of data limits the efficiency and effectiveness of school planning and maintenance which can be achieved and early steps should be taken to create a data base of such information"*

Clearly, it makes economic sense to ensure that the best use is being made of existing facilities. Local data are not available but there have been some overseas studies conducted. A space utilisation survey of a number of secondary schools in several African countries carried out by UNESCO's Regional Educational Building Institute, (REBIA), revealed significant scope for increasing utilisation of school buildings. The study in Morocco showed that:

*"in almost all the schools surveyed the available number of spaces is more than required by a considerable margin in the general classroom category by an average of 33.33 percent and in the special classroom category by an average of 15 percent."* (REBIA, 1969a)

A study in Ghana (REBIA, 1969b), provided similar results.

The analysis of the Edmund Rice College experience has shown clearly that the extended hours model allows:

- (a) a student population of between 1,000 and 1,200 to be adequately supported by school plant facilities that were designed to support a student population of only 800 using a conventional structure,
- (b) existing facilities to be much more efficiently utilised than previously anticipated.

#### **4. Growth in the Private Sector and the Extended Hours Timetable**

In 1990 there were approximately 10,000 schools operating in Australia of which about 7,500 were government schools and 2,500 non-government schools. Since 1979 there has been a steady increase in the proportion of non-government school enrolments. In 1979, 25.7 percent of secondary students were enrolled in non-government schools. This figure had increased to 31.5 percent in 1989.

The National Report on Schooling in Australia (1991:8), indicated that this enrolment increase within the non-government sector has not been uniform.

*"While the overall enrolment numbers in Catholic schools are increasing, they are increasing at a lesser rate than enrolments in other types of non-government schools. The largest rate of increase in primary enrolments has been seen among the Christian Community and parent controlled Christian schools. In these schools over the last 5 years enrolments have increased by 75%, from about 14,500 to 25,500 students. Over the same period Catholic school enrolments have increased by 3.5% from about 574,000 students to 593,000 students."*

In 1988 Commonwealth grants represent about 11% of spending on government schools and about 36% of spending on non-government schools. State

governments provided 19% of the balance of expenditure on non-government schools while private expenditure makes up the remaining 45%. (Commonwealth Budget Statements, 1988:109).

In 1989, the Commonwealth Government provided approximately \$239 million to schools under its capital grants program. Of this, \$180 million was for government schools and \$60 million was for non-government schools. Sixty four per cent of these funds allocated to non-government schools were provided for the upgrading of existing facilities and 36% were used to construct facilities for new pupil places.

Block Grant Authorities were responsible for prioritising applications for capital grants from the private sector and allocating Commonwealth funds. In 1989, 416 applications were received for capital grants and 184 were approved. The average grant was \$328,000 towards an average project cost of \$493,000. Of the 232 applications not recommended for funding, 4% were considered ineligible while 96% were eligible but lacked sufficient priority relative to recommended applications. (Figures from the National Report on Schooling in Australia 1989, 1991:154).

Clearly, many of these emerging non-government schools, would closely identify with the problem faced by Edmund Rice College of financing a necessary building program in the face of such a long waiting list for government funds.

The analysis of the Edmund Rice innovation has clearly revealed that the capital costs associated with building new schools can be significantly decreased by utilising the extended hours model. School plant facilities that were designed to support smaller student populations can support larger populations incorporating the extended hours timetable.

The cost savings for the private sector of the education market are potentially large. Table 7.4 (p.229) indicates the projected growth in the student population in secondary, non-government schools. These figures reveal an anticipated annual

growth of 2,000 students. Figures do not reveal the anticipated distribution of this growth nor do they indicate final estimated sizes of new schools required to house this clientel or how much is expected to be absorbed by existing schools. Table 7.3 does highlight the fact that the modal size of existing non-government schools is between 400 and 1,000 students. Thus it is reasonable to estimate that most new schools built to accommodate the increase in student numbers will fall in this range.

In the case of existing schools absorbing any growth in overall non-government student population, the Edmund Rice College experience should be an alternative considered seriously by school administrators. The analysis provided by this study has definitely produced evidence to suggest that the extended hours model is potentially a cost-effective alternative.

In the case of building new non-government schools the significant savings in building costs can be achieved by incorporating the concept of the extended hours innovation into construction plans. Area guidelines for the allocation of capital grants stipulate that the recommended maximum area for functional spaces in a secondary school is 9.75 square metres per student. (Commonwealth Programs For Schools, 1991:149).

The cost analysis of the Edmund Rice College model provided by this study has demonstrated that a school built with facilities for 800 students using conventional timetables can accommodate in excess of 1,000 students using the extended hours model. Using the government guidelines, a school anticipating an eventual student population of 1,000 would be recommended to provide functional space of 9,750 square metres. For a school of 800 students the area would be 7,800 square metres.

Thus, using the extended hours model, a saving of 1,950 square metres, or 20% of functional area can be made. Utilising a conservative construction value of \$1,500 per square metre, (Scott, 1990:326), a new secondary school would yield a

potential saving of \$2.9 million per school. For smaller schools the savings would be in a similar proportion to total costs.

In the private sector alone there were 29 new schools approved for commencement in the year ending June 1990. The potential cost savings in construction for each school would not be uniform and would be dependent on anticipated final student population. However, it is clear that cost savings for at least a significant proportion of these new schools would accrue if the extended hours model was implemented.

**Table 7.3**  
**Number of Secondary Schools in Australia**

Student Population	Number of Schools	
	Government	Non-Government
>100	15	30
101-200	50	35
201-400	175	90
401-600	225	105
601-1,000	530	140
>1,000	210	30
1,205		430

**Table 7.4**  
**Projected Secondary Student Population Growth in Non-Government Schools**

Year	Projected Student Population
1988	402,000
1989	404,000
1990	406,000
1991	408,000
1992	411,000
1993	417,000

(Figures obtained from the *Statistical Annex - National Report on Schooling in Australia 1989, 1991*)

## **5. School Building Maintenance Backlog and the Extended hours model.**

The Scott Committee of Review (1990:197) identified a desperate need to address the very large maintenance backlog that exists in the New South Wales Government School system. This backlog has increased despite increased expenditure on maintenance arrears since 1984. The situation will substantially worsen due to the fact that the rate of new school building increased rapidly in the early to mid 1970s and these schools now approach their twentieth year of service. After this length of usage it is anticipated that the building components which need major maintenance or replacement will increase in number. The Scott Committee (1990:198), estimates that the maintenance backlog is at least \$200 million and may be as high as \$1,000 million.

Implementation of the extended hours concept in a number of schools would result in a more efficient use of existing plant and hence reduce, in many cases, pressure for a commitment of funds for new capital projects. This, in turn, would free up finances that could be directed towards the maintenance of adequate standards of accommodation for students and teachers in existing schools

## **6. Senior Secondary Schools and the Extended Hours Timetable**

Many administrators advocate the setting up of senior high schools as a response to the increased rate of retention. In 1989 a high school catering for senior students was established in western Sydney with the specific aim of catering for increased retention rates by providing a wider range of subject choices in Years 11 and 12. This was the first senior high school in the New South Wales government school system. Senior high schools had, however, been provided in the private sector for a number of years. By 1990, senior colleges were in place or being developed in all Australian States and territories other than Western Australia.

In the final section of the report, *The Challenge of Retention*, (ACER 1990:12), commissioned by the Australian Government in 1988, two main organisational influences on retention were identified at school level.

- *“Student welfare, which included counselling and student discipline - teachers reported that many of the students now returning for Years 11 and 12 need much more academic and career counselling. It was argued by teachers that it was essential for schools to change their view of discipline for Years 11 and 12, so that school discipline could be based on students’ responsibility for their own actions.*
- *The school timetable was seen as a major constraining factor on students curriculum choices, and as a key determinant of how efficiently schools can use their available equipment and staff resources.”*

These results were derived from surveys conducted in 35 schools nominated by each State and Territory education system and Catholic education authorities. Respondents identified structures such as timetabling, year level groupings, teacher subject allocations and lack of resources as holding back schools from developing more flexible or rational approaches to the delivery of senior secondary curriculum.

The Edmund Rice extended hours model addresses each of these factors and offers a definite alternative. The model allows for the conscious creation of a senior mini-school. Implementation of the model would allow greater flexibility for schools to vary curricular provisions and modify school rules so that they could more directly encourage students’ self-responsibility, (particularly in the afternoon periods after the junior students have gone home). The study of the Edmund Rice experience has shown that schools can use their available equipment and staff resources more efficiently to meet these ends.

At the same time as providing greater independence for the senior section of the school, the overlapping periods with the junior school has been noted by many as contributing to the sense of the school being an integrated institution. Teachers

have the opportunity to teach across all academic years and this provides them with an opportunity to build ongoing knowledge of students as individuals.

The extended hours model provides a structure that creates a framework that can be completed and varied with whatever options an individual school deems most appropriate for its own unique clientel. There is a definite need to make Years 11 and 12 “different” from the junior years of schooling. Almost all children will finish six years of high school in the future. This is longer than most university courses. Six years of the “same thing” is inappropriate for a significant proportion of the student population. The extended hours model is a distinct alternative that has been shown by this study to be cost efficient and viable.

### **The Extended Hours Model - Is Anybody Interested?**

As stated earlier in the outline of its specific aims, this study has made an attempt to document the circumstances of the extended hours innovation in a form that will assist educational decision-makers to evaluate the likely consequences of adopting the change. A question that should be asked is -

*Are educational administrators interested in this type of organisational innovation?*

Attention is currently being focused on the organisation of schools in Australia. The National Schools Project is one government sponsored program involved in this issue. Under the umbrella of the National Project on the Quality of Teaching and Learning (NQPTL), it is a national pilot school program designed to find out how schools can improve student learning by varying approaches to work organisation.

At present there are 92 schools participating in this project. Edmund Rice College has been accepted as one of these schools after being nominated by the New South Wales Independent Teachers Association.

The purpose of the National Schools Project is to trial alternative ways in schools which can contribute to improving learning outcomes for students. Participating schools must describe how their proposed changes in work organisation will influence the nature of the work done in the school and how better learning will follow. The innovation may not itself be designed to improve educational outcomes directly, but it may enable schools and teachers to vary their pedagogy in ways which will ultimately improve student performance.

It is anticipated that the Project will facilitate a network of information that will encourage schools to adopt some of the innovative ideas generated and documented. Also, it is hoped that becoming aware of other schools experimentation will inspire others to innovate.

*The existence of such a national project emphasises the fact that educational administrators are interested in the details of the type of organisational innovation developed by Edmund Rice College.*

Edmund Rice College, after a considerable number of enquiries, held two information seminars for interested parties external to the school's own immediate community. The first was held in 1991. Attending the seminar were representatives from schools from all States of Australia. Those in attendance varied from administrators of school systems, both government and non-government, to representatives from individual schools. The second seminar was held in 1992 and, again, it was attended by approximately 100 people.

When asked why they were interested in the extended hours innovation, people attending these information days offered different reasons. Some of these included:

- an interest in implementing a version of the extended hours timetable in their own situation, in order to cope with an increase in senior student numbers,

- an interest in implementing the model in order to boost falling enrolments by offering a more flexible curriculum to a wider variety of clientel,
- curiosity
- a feeling of being overwhelmed by the diversity of changes being discussed for possible imposition on individual schools and school systems and a desire to keep informed so as to be prepared,
- seeking a solution for specific timetabling problems. An example of this was one school attempting to find a better way of incorporating additional periods for 3 and 4 Unit Higher School Certificate subjects as an alternative to the *ad hoc* approach of asking teachers to teach these classes outside the normal timetable structure,
- system administrators from Western Sydney trying to cater for an increased demand from a rapidly expanding population for new schools but lacking funds to build sufficient ones to cope with this demand.

On these seminar days, those in attendance expressed an interest specifically in the following areas:

- details of the extended hours model,
- reasons why the College pursued this type of solution,
- how the College introduced the idea to parents, staff, students and unions and what was the subsequent responses and method of development,
- the financial costs involved,
- the impact on the staff and students and any problems encountered,
- the College's plans for future development.

*There is little doubt that there is a need in the educational community to share experiences in the area of innovation. It is this need, in particular, that this study has attempted to address.*

# Chapter 8

## Conclusions and Recommendations

### Overview

This study has recorded and analysed the experiences of Edmund Rice College in devising and implementing organisational reform. In particular, it has focused on the extended hours model adopted by the school. This model set out to provide a more flexible organisational environment that would enhance its ability to be effective in the pursuit of its goals.

An overview of relevant, current educational research that should be considered by individual school administrators and their teaching staff when investigating organisational change and school effectiveness was provided. Reference to this educational literature facilitated the derivation of some important concepts that helped set the direction of this detailed analysis of the school's experiences.

It was found that, although the concept of school effectiveness is very complex, a number of specific variables can be highlighted. These included:

- The effect of an organisational innovation on the level of commitment of a school community to the school's goals and values must be considered.
- To be effective an organisational innovation should enable a school community to move closer to the fulfilment of its stated goals and objectives in relation to student development and achievement.
- The school community should have a clarity of purpose in relation to the expected outcomes of the innovation.
- The effectiveness of any school organisational innovation depends very much on the actions of the teaching staff. The educational research

indicated that effective schools are staffed by teachers who work harmoniously with one another.

Qualities such as teacher influence and involvement, teacher efficacy, teacher co-operation and teacher collegiality are important factors to develop in a school. To be effective organisational innovation should enhance the ability of schools to produce environments that assist teachers to develop these qualities.

- The practices of the principal are important in shaping the culture of the school. The role of the principal is complex and demanding.

The principal of a school can assist in clarifying goals and objectives. They can also help establish a clarity of purpose in relation to expected outcomes of change. The leadership style of the principal greatly influences the climate of the school and the working relationships between staff.

It was found that definitions of effective leadership vary widely. There is, however, no doubt that the impact of the quality of leadership on organisational change and the effectiveness of schools is very significant.

This study has established that there is a definite place for more flexible and innovative use of school facilities. In the face of increasing economic constraints and growing demand for limited resources the need for different approaches to resource usage is essential.

This study also found support in educational literature for the proposition that school organisation can have an impact on student achievement. Innovative use of resources that improves organisational efficiency can positively affect student outcomes.

The aim of the extended hours concept adopted by Edmund Rice College was to increase the organisational efficiency of the school with a view to increasing the quality of its outputs in the longer term. The innovation was adopted by the College in the belief that its implementation would eventually provide an

environment that would be able to be utilised to positively influence student achievement.

Some insight into the character and ethos of Edmund Rice College was provided. The history of the College was examined. This revealed that throughout its existence the administrators of the School had battled to provide adequate facilities to meet the demand from the community for its services. Organisational pressures increased during the latter part of the 1980s particularly as a result of increasing enrolment demands.

The extended hours innovation was adopted by the College in an effort to provide an organisational framework that would allow it to more effectively cope with the problems it was experiencing. As has been clearly shown in this study, the extended hours model is more than a set of simple timetable changes. It is, in fact, a fundamental organisational innovation that has potentially significant consequences.

In particular, it has been shown that the extended hours innovation provided the College with the capacity to increase its student population utilising existing building space. Greater opportunities for flexibility in timetabling and staffing arrangements allowed the pressure on limited resources to be spread over a longer school day.

The detailed cost analysis provided by this study revealed that the organisational innovation is financially viable and even potentially income generating.

The process of implementation of change at the school was evaluated. It was found that, although the details of this process were unique to Edmund Rice College, certain stages identified in educational literature concerning change were discernible.

It was found that the relatively open organisational climate of the school established by its administration facilitated an environment more receptive to change.

The innovation was developed and implemented in an industrial climate that was increasingly embracing local enterprise arrangements that allowed for more flexible working structures. The innovation had the support of the State teacher union that viewed it as an acceptable and appropriate response to an individual school's needs.

The College administration established open communication channels with staff, parents and government bodies. These channels operated at both the formal and informal levels. Although the methods of communication were in some areas limited, they did, over a period of time, build support for the extended hours concept, particularly within the immediate school community.

Edmund Rice College is a positive example of the advantages of devolving certain management responsibilities to individual schools. Innovative solutions to budgetary constraints such as those experienced by the College are, in many instances, best devised by individual local school communities and not by centralised management bodies. Edmund Rice College provides a suitable model for government schools in New South Wales seeking examples of how to deal with new financial responsibilities placed upon them in the devolutionary environment of the nineties.

The extended hours model adopted by Edmund Rice College adds weight to the argument that devolving financial management to an individual school level will increase the chances of innovation and hence more efficient financial administration.

It has been shown that the New South Wales education system faces a number of significant management changes. These include:

- school closures due to changing demographic patterns
- growth in demand for a commitment of scarce resources to building new school facilities
- continued growth in demand for non-government school placements and hence a demand for government grants to assist in the construction of new schools or the expansion of existing schools
- an increasing government school building maintenance backlog that will require a large commitment of financial resources
- the growth in senior enrolments in New South Wales secondary schools that has led to calls for the construction of senior high schools.

This study has put forward the proposal that the extended hours model developed by Edmund Rice College provides an alternative that educational planners should consider when attempting to address some of these problems.

It has not been the aim of this study to analyse in detail the possible impact of the extended hours concept on these specific problems. The analysis provided by this study does, however, clearly show that the innovation is a viable alternative that merits serious consideration.

This analysis has revealed a number of important characteristics of Edmund Rice College and its extended hours innovation. The innovation has been implemented in an atmosphere of clearly identifiable goals and this initial study has shown that some of these goals have been achieved:

- the innovation has assisted the College to finance a substantial building program in a way that has minimised the burden on the school community,
- the innovation has placed the College in a better position to cope with increasing enrolment pressures, particularly in the senior section of the school,

- should community economic circumstances change and projected student retention rates not be achieved, the College will not have been committed to unnecessary capital outlays,
- the innovation has provided a more flexible framework from which the College community can, over a longer period of time, reassess and redevelop its organisational and teaching practices,
- in many cases the College has been able to provide a more flexible and attractive arrangement of hours of operation for its teaching staff.

The majority of members of the College community have accepted the extended hours innovation as an appropriate response to the needs of the school. The network of information dissemination regarding the details of the implementation of the extended hours model was effective in developing a positive reception to the change process. The innovation has been accepted by the College community as a long term proposition.

The College Administration has established support for, and interest in, the extended hours model from the various levels of responsible educational authorities.

This study has highlighted some problems being experienced by the College community that should be addressed. In particular:

- the staff of the College are experiencing some deterioration in their perceived levels of collegiality and communication,
- some students have had the length of their school day extended due to problems associated with transport to and from school.
- The general level of communication between the College Administration and the parents, teachers and students was considered satisfactory. A substantial proportion of teachers and parents felt, however, that they should have been allowed a greater involvement in the decision-making process.

The College Administration has in its power the ability to address these issues and collaboratively find solutions to the problems.

Overall, this study, through its detailed analysis of Edmund Rice College has offered a closer understanding of the dynamics of organisational change at an individual school level. Insights gained into the methodology adopted by Edmund Rice College should contribute to a greater understanding of organisational change in general.

This study has shown that a school can devise and implement innovative schemes that can lead to improved efficiency in organisational practices. The innovation of Edmund Rice College has been shown to be cost efficient. A more difficult question to answer, however, is what contribution has the organisational change made to the effectiveness of the school? In particular, how has, or how will, the implementation of the innovation impact upon the learning outcomes of the students?

The review of educational literature provided by this study has highlighted the facts that the most fundamental factors affecting any school's effectiveness are its quality of life, its values and its ethos. This study has detailed the short-term impact of the extended hours innovation on the school community of Edmund Rice College. The analysis of the survey responses provided valuable insight into the immediate effect the innovation has had on the stakeholders of the College. These responses indicated that some of its community have experienced changes in the quality of life at the College. The teachers of the school are continually monitoring these effects and seeking ways to maintain and improve the extended hours model.

The long-term effects of the Edmund Rice innovation are yet to be realised. The teachers of the College are reassessing how they might best utilise the newfound flexibility they have achieved within their school day. In particular the staff of the College are seeking ways to make the senior years at the school "different". The difference is being sought in order to maximise the use of the

greater availability of resources in an environment that encourages students to take more responsibility for their own learning.

*The extended hours model must be seen as a part of the change process and not as an end in itself.*

The extended hours model has limited direct effect on student learning outcomes. It does, however, as has been stated previously in this study, allow for an examination of work organisation and work practices that in turn provides a system of greater flexibility. This flexibility can only enhance the ability of the school to respond to changing needs in learning methods and relationships across the curriculum.

## Summary of Conclusions

1. If adopted on a wider scale, the extended hours innovation has the potential to lead to a more economic utilisation of educational resources, both in the public and the private sector.

Implementing the innovation would provide a more flexible availability of resources that may allow:

- some schools to become target schools for other surrounding secondary schools that are experiencing difficulty catering for increased retention rates in Years 11 and 12,
  - schools with declining enrolments would be able to increase the utilisation of their resources by allowing secondary education and post-compulsory education to operate from one campus. Students may be able to mix part-time or full-time work with Higher School Certificate studies or TAFE studies if the timetable hours are extended far enough.
2. The analysis of the Edmund Rice innovation has revealed that the capital costs associated with building new schools can be significantly decreased by incorporating the use of an extended hours timetable with initial building plans.  
  
This is due to the fact that a student population of between 1,000 and 1,200 can be adequately supported by school plant facilities designed to support a student population of only 800 using a conventional timetable structure.
  3. Implementing an extended hours timetable at schools that would otherwise require significant capital expenditure to cater for expanding populations will allow government finances to be diverted to the growing problem of the building maintenance backlog.

4. Schools implementing the extended hours model will be able to offer an alternative to the creation of separate senior high schools.
5. At an individual school level the following advantages will apply if an extended hours timetable is implemented:
  - the greatest additional classroom capacity is achieved during the hours when the senior students are at school and it is in this section of schools in New South Wales where the greatest pressures of growth are being experienced,
  - should projected retention rates not be achieved due to changes in community attitudes or economic circumstances then schools will not have been committed to irreversible and unnecessary capital outlays,
  - the usefulness of the extended hours model is not restricted to schools pursuing building programs. Schools may implement the model in order to cope with changes in student population or simply to gain flexibility in the availability of resources for a static student population.
  - The extended hours model provides the opportunity for increased timetable flexibility that can facilitate a wider range of student curriculum choices.
6. Specifically, for Edmund Rice College, the development and implementation of the extended hours model has allowed the school to:
  - finance a substantial building program in a way that has minimised the burden on the school community,
  - even out the “peak-load” demand on its resources while at the same time placing itself in a better position to cope with increasing enrolment pressures,
  - pursue its pastoral aims in the face of continued growth and change,

- provide a more flexible environment for its employees.
7. The educational community is interested in sharing experiences in the area of organisational innovation. It is vital that these experiences be documented, analysed and disseminated throughout this community. Access to a wide range of experiences will give school communities and administrators confidence to seek individual solutions to organisational problems. Shared resources will provide a stimulus for further innovation.

## Recommendations for Future Research

1. This study has highlighted a number of possible applications of the extended hours model in various situations. There is evidence that some schools in Australia are currently developing and implementing their own versions of the extended hours model. The experiences of these schools need to be carefully analysed and documented. This will expand the network of information available to schools and educational administrators.
2. More detailed analysis needs to be made of the potential savings for the public sector if more widespread use of the extended hours model is made in government schools in Australia. This analysis should include details of the financial savings at a system level as well as the potential impact on individual schools.
3. As a pioneer school in the area of extended hours timetabling, Edmund Rice College should be continually monitored in order to ascertain any long-term changes impinging on the effectiveness of the school. In particular, details should be sought concerning how the school changes its pedagogy in order to maximise the use of the greater availability of resources. Also, it will be of significant interest to analyse the development of the new senior mini-school created at the College and document the ways the school attempts to establish a "different" senior environment.

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## **Appendix I**

### **Administrative Structure & Teaching Experience**

Appendix 1

Table A1.1

Administrative Structure - 1990

<b>Executive:</b>	Headmaster (#1)
	Deputy Headmaster (#2)
	2nd Assistant to the Principal (#3)

**Academic:**

English	1 Co-ordinator (#4)
Mathematics	1 Co-ordinator (#4)
Science	1 Co-ordinator (#4)
Social Science`	1 Co-ordinator (#4)
Humanities	1 Co-ordinator (#4)
Industrial Arts	1 Co-ordinator (#4)
Fine Arts	1 Co-ordinator (#4)
Physical Education	1 Co-ordinator (#4)
Religion	1 Co-ordinator (#4)

**Pastoral**

There was a Guidance Co-ordinator appointed for each of the six academic years. (#4)

Note: Refer to Table A1.2 for interpretation of the symbol # which denotes salary scale.

**Table A1.2**

**Salaries and Allowances**

The salaries and allowances were paid according to the award rates applicable at the time.

- #1 Non-teaching position with minimum salary at the level of Principal Secondary (900+ students)
  
- #2 Non-teaching position with minimum salary at the level of First Assistant to the Principal
  
- #3 0.6 FTE teaching load (18 periods) with salary allowance at the level of Second Assistant to the Principal
  
- #4 0.8 FTE teaching load (25 periods) with salary allowance at the level of Subject Co-ordinator

The Subject Co-ordinators are primarily responsible for the curriculum within their subject areas. This includes the particular responsibility for the development and supervision of teaching staff. The Guidance Co-ordinators are primarily responsible for the pastoral care and discipline practice within a particular student year. Various classroom teachers are appointed Home Room Organisers and actively assist the Guidance Co-ordinators in this task through the operation of Pastoral Care Teams. The position of Home Room Organiser is not a promotions position at Edmund Rice College.

**Teaching Experience of the Staff**

The Principal of Edmund Rice College had been teaching for 21 years. All of his teaching experience had been gained in Catholic, non-government schools. He had been teaching at Edmund Rice College for nine years. He had been a principal for eight years, all of which had been spent at Edmund Rice College.

The Deputy Principal of Edmund Rice College had been teaching for 22 years. All of his teaching experience had been gained at Edmund Rice College. He had been a Deputy Principal for a period of eight years.

Tables A1.3 and A1.4 provide information detailing the levels of teaching experience of the staff at Edmund Rice College. This information has been provided in order to allow other schools to determine further similarities and differences between their particular staff and that of Edmund Rice College.

The average number of years of teaching experience at any school of teachers employed at Edmund Rice College was 14.6 years. The range of teaching experience at any school of teachers at Edmund Rice was 2 years to 43 years. From the table it can be seen that the modal range of years of teaching experience at any school was 11 years to 15 years.

The information contained in Table A1.4 gives some insight into the stability of the teaching staff at the College. It gives specific information about the years spent teaching at Edmund Rice College. The average number of years spent teaching at Edmund Rice College by members of the teaching staff was 8.3 years. The range of teaching experience specifically at Edmund Rice College was 2 years to 25 years. From the table it can be seen that the modal range of years spent teaching at Edmund Rice College was 1 year to 5 years.

**Table A1.3**

**Teaching Experience (at any school)**

The following table indicates the years of teaching experience at any school of the teaching staff employed at Edmund Rice College in 1990.

<b>Years of Teaching Experience</b>	<b>Number of Teachers</b>
1-5	3
6-10	18
11-15	19
16-20	14
>20	10

**Table A1.4**

**Teaching Experience at Edmund Rice College**

The following table indicates the years spent teaching at Edmund Rice College by its teaching staff.

<b>Years of Teaching Experience</b>	<b>Number of Teachers</b>
1-5	26
6-10	20
11-15	10
16-20	6
>20	2

**Appendix 2**

**Sample of the Extended Hours Timetable**  
- Cycle Day  
- Fixed Day

DAY	YEAR 12	YEAR 11	YEAR 10	YEAR 9	YEAR 8	YEAR 7
1			1 2 3 4 5	22 23 24 25 26 27	17 28 30 29 15 16	14 11 9 10 13 12
1			SCI A SCI A SCI A MATH B MATH B MATH B (S) (Y) (T) (2T)	COM B INT B MATH B JAP COM ST MATH B TECH B MATH B (C) (A) (B) (W)	HIST ST HIST ST SOC SC REL A REL A REL A (S) (S) (S) (S) (S) (S)	ENG ENG ENG ENG ENG ENG (R) (R) (R) (R) (R) (R)
2			PA TR JE AW MF TF	MP LS DH RK JL AJ GV PO	PM PL TK JF BF SL	HW SB GB SA GS JK PK
9:00			MATH A INT B GEO A HIST A MATH ST MATH ST MATH ST (C) (A) (B)	REL A REL A REL A MATH ST MATH ST MATH ST	ENG ENG ENG SCI SCI MATH	REL MATH MATH SCI MATH SCI (R) (R) (R) (R) (R) (R)
9:45			MP JA TK GB JL AJ PO	DH BF TB SA PM PR	HW SB ENG (S) PK RH TR	FL JF JY JE GS PM
10:15			COM B COM B MATH C JAP MATH C MATH C MATH C (2A) (W) (T) (C)	SCI A SCI A SCI A SCI A MATH B MATH B MATH B (T) (Y) (S) (R) (S) (S)	ART ART MATH SOC MATH SCI (S) (S) (S) (S) (S) (S)	MATH SCI MATH SCI MATH SCI MATH SCI MATH SCI MATH SCI (S) (S) (S) (S) (S) (S)
3			MP KS RB RK MR GW PI	RA TR PA GS AW MS TF	SL KB PL JN SA JE	PR RD PM HW TB GB PK
11:00			REL A REL A REL A MATH ST MATH ST MATH ST (2T)	COM C COM D GEO C TRAJ MATH MATH MATH MATH (T) (D) (D) (W)	SCI SCI SCI SCI MATH ART (T) (S) (R) (G) (S) (S)	MATH MATH MATH MATH MATH MATH (S) (S) (S) (S) (S) (S)
4			DH TK SM GS PR PM	JN MP TF RK KB PI PC MR	BI GM AC RM PP SL	AW BF RD JF KS JA
11:45	18 19 20 21					
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12:15	KS SC JA JM TR KB PI	JN ST JL GM PP KB	JN ST JL GM PP KB	JN ST JL GM PP KB	JN ST JL GM PP KB	JN ST JL GM PP KB
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**Appendix 3**

**Enterprise Arrangements**

# Enterprise Arrangements

## 19. Enterprise Arrangements

### 19.1

- (a) As part of the Structural Efficiency exercise and as an ongoing process, improvements in productivity and efficiency, discussion should take place at an enterprise to provide more flexible working arrangements, improvement in the quality of working life, enhancement of skills, training and job satisfaction, and positive assistance in the restructuring process and to encourage consultation mechanisms across the workplace to all employees in an enterprise and consideration of a single bargaining unit in all multi-union award workplaces. Union delegates at the place of work may be involved in such discussions.
- (b) The terms of any proposed genuine arrangement reached between an employer and employees in any enterprise shall, after due processing, substitute for the provisions of this award to the extent that they are contrary provided that:-
  - (i) A majority of employees affected genuinely agree.
  - (ii) Such arrangement is consistent with the current State Wage Case principles.
- (c)
  - (i) Before any arrangement requiring variation to the award is signed and processed in accordance with subclause 19.2 of this clause, details of such arrangements shall be forwarded in writing to the union or unions with members in that enterprise affected by the changes and the employer association, if any, of which the employer is a member. A union or an employer association may, within 14 days thereof, notify the employer in writing of any objection to the proposed arrangements including the reasons for such objection.
  - (ii) When an objection is raised, the parties are to confer in an effort to resolve the issue.

*Enterprise arrangements clauses have been inserted into awards as a result of the May 1991 State Wage Case. Enterprise arrangements are different to enterprise agreements, in that they involve the union and the Industrial Commission in entering into arrangements which may provide more flexible working structures, improvements in the quality of work, or enhancement of skill training and job satisfaction. The ITA is very committed to the possibility of entering into enterprise arrangements with schools or systems so as to improve teachers' working conditions and job satisfaction.*

### 19.2 Such enterprise arrangements shall be processed as follows:-

- (a) All employees will be provided with the current prescriptions (e.g. award, industrial agreement or enterprise arrangement) that apply at the place of work.
- (b)
  - (i) Where an arrangement is agreed between the employer and the employees or their authorised representative at an enterprise, such arrangement shall be committed in writing.  
Where the arrangement is agreed between the employer and an absolute majority of permanent employees under this award at an enterprise, such arrangement shall be committed in writing.
  - (ii) The authorised representative of employees at an enterprise may include a delegate, organiser or official of the relevant union if requested to be involved by the majority of employees at the establishment.

## **Appendix 4**

### **Commonwealth Funding For NSW Non-Government Schools**

## Government Funding for NSW Non-Government Schools

Commonwealth funding for New South Wales non-government schools is based on the calculation of an individual school's *Educational Resource Index*. The E.R.I. is basically an income measure.

Calculation of a school's E.R.I. involves two parts:

1. The numerator of the calculation is essentially an estimation of the net private income of the school. The net private income consists of the total private income plus contributed services minus capital related allowances.

Sources of private income include:

- school fees
- charges which are mandatory and common to all students or a section of a school, e.g. library fees, sports fees, subject fees,
- all grants and other amounts received from a church, parish or order for operating purposes,
- payments made by a church, parish or order on behalf of the school,
- amounts received from, or payments made by, the church, parish or order which are provided for the repayment of the principal of loans for operating purposes in respect of the school,
- surpluses from the operation of activities such as canteen/tuckshop, bookshop, book hire, hiring out school premises and facilities, income from investments and the rent properties,
- the cash equivalent of donations in kind,
- income, contributions or donations towards operating expenses from P & F Association, special appeals, holding companies, friends of the school, etc.
- income from building and other funds to the school. (Note that income to building funds is not included. Such donations only become income to the school in the year that they are spent.)

The capital related allowance is based on the proportion that the school's private cash income is of the school's *assessment standard expenditure*. The assessment standard expenditure involves calculating the difference between actual expenditure for operating purposes and standardised per capita values assessed by the government.

Actual expenditure includes:

- salaries and allowances for both teaching and non-teaching staff,
  - other staff related expenses such as superannuation, long service leave pay, workers compensation insurance etc.,
  - teaching aids, materials and consumables provided for use in the school,
  - general office expenses, printing and stationery costs, postage, telephone, audit and accounting fees etc.,
  - non-salary buildings and grounds operations and maintenance expenses,
  - sundry administrative expenses such as insurance premiums, motor vehicle expenses, staff training expenses, travelling expenses etc.
2. The denominator of the E.R.I. is the school's *assessment standard costs*. This figure is simply the student population multiplied by a standard government allowance for each senior or junior student.

The resulting index obtained is used by the Commonwealth Government to assign the school to a particular funding category. Edmund Rice College was placed in category 11, the second highest funding allocation.

There are two other factors, apart from the E.R.I., that directly effect the funding category of a school. These are:

#### 1. Maintenance of Effort

The purpose of the Maintenance of Effort measure is to prevent schools becoming more dependent on government funding by simply reducing its own recurrent expenditure from private sources. Unless a school maintains its recurrent expenditure from private sources in real terms, or

maintains effort, it cannot move to a more favourable funding category even if its new E.R.I. puts it there.

## **2. Private Income Status**

The purpose of Private Income Status is to allow schools to increase their private income to a certain extent without penalty. A school which increased its Private Income by less than 3% per annum in real terms was going to be able to maintain its funding category even if its E.R.I. moved upwards across a funding category.

Clearly, schools must build in calculations not only of E.R.I., but also of Private Income Status and Maintenance of Effort, to their long range financial plan. Change in enrolment and financial circumstances can mean a change in government funding variables. An assessment of the impact of any organisational changes on a school must include an investigation into the effect it may have on existing funding arrangements.

In the particular case of Edmund Rice College, the extended hours model actually placed the school more comfortably in its existing funding level. Prior to the introduction of the new teaching hours and the increased enrolment, the school was having some difficulty maintaining its category 11 rating. According to the College bursar, the 1991 calculation of its E.R.I. indicated that it now has no difficulty meeting the requirements of its funding category.

## Appendix 5

### The Surveys

## Staff Survey

1. Which timezone do you teach in this year?
  - (a) morning shift
  - (b) afternoon shift
  - (c) middle shift
  - (d) a mixture of shifts during a timetable cycle
  
2. In which timezone would you prefer to teach in 1992?
  - (a) morning shift
  - (b) afternoon shift
  - (c) middle shift
  - (d) I would prefer a mixture of shifts during a timetable cycle
  
3. Have you found that your personal or your family's daily routine has been
  - (a) greatly disrupted by your new school hours?
  - (b) a little disrupted by your new school hours?
  - (c) virtually unchanged by your new school hours?
  - (d) made more convenient by your new school hours?
  
4. (i) Have the new starting and finishing times for school prevented you from participating in any after-school activities in which you or your family were previously involved?
  - (a) yes
  - (b) no  
  - (ii) If you answered yes to this question please give details in the space provided on your answer sheet.
  
5. (i) Do you think that you were given enough information last year to prepare yourself for the new arrangements at the beginning of this year?
  - (a) yes
  - (b) no

- (ii) If you answered no to this question, what extra information would you have found useful? Please answer on the space provided on your answer sheet.
6. Do you find that, as a result of the new changes implemented this year at Edmund Rice College, time available to communicate with your colleagues during the day is
- (a) greater than last year?
  - (b) about the same as last year?
  - (c) a little less than last year?
  - (d) much less than last year?
7. Have you found that, as a result of the changes implemented this year at Edmund Rice College, your work-load has
- (a) increased significantly?
  - (b) remained about the same?
  - (c) decreased significantly?
8. Do you think that the arrangements for the scheduling of staff meetings this year are
- (a) more convenient than last year?
  - (b) equally as convenient as last year?
  - (c) less convenient than last year?
9. Has your involvement with the innovation introduced by Edmund Rice College in 1990
- (a) been a positive influence on you professionally as a teacher?
  - (b) been a negative influence on you professionally as a teacher?
  - (c) had no significant influence on you professionally as a teacher?
  - (d) has had a mixed effect on you professionally as a teacher?

10. Do you think that being paid extra to voluntarily teach an additional class on top of a normal teaching load is a viable desirable alternative for teachers wishing to supplement their income?
- (a) yes
  - (b) no
  - (c) unsure
11. Do you agree with the following statement: Parents should have had a greater say in decisions that were made regarding the new teaching hours implemented in 1991?
- (a) strongly agree
  - (b) agree
  - (c) disagree
  - (d) strongly disagree
12. Do you agree with the following statement: Teachers should have a greater say in decisions that were made regarding the new teaching hours implemented in 1991?
- (a) strongly agree
  - (b) agree
  - (c) disagree
  - (d) strongly disagree
13. Do you think that the new starting and finishing times this year have permitted you to spend
- (a) more time with individual students than last year?
  - (b) equally as much time with individual students as last year?
  - (c) less time with individual students than last year?
  - (d) unsure

14. As a result of the extended operating hours of the College this year it is possible to consider increasing the numbers of students in Years 11 and 12. One possibility that is now feasible is to allow Years 11 and 12 to become co-educational.

Do you agree with the following statement: Years 11 and 12 at Edmund Rice College should become co-educational.

- (a) I strongly agree
  - (b) I agree
  - (c) I disagree
  - (d) I strongly disagree
  - (e) I am unsure
15. Do you think that the changes to the school times at Edmund Rice College will be
- (a) only a temporary measure?
  - (b) a sensible, long term solution for the College?
  - (c) a bad idea that should be abandoned as soon as possible?
  - (d) a lot of fuss about nothing?
16. What do you think has been the main reason for the changes to your starting and finishing times?
- (a) to fit more students into the College
  - (b) to help finance the new building program
  - (c) to employ more teachers
  - (d) to reduce class sizes
17. In general, do you find yourself eating some or all of your meals
- (a) later than last year
  - (b) earlier than last year
  - (c) at the same times as last year
  - (d) at different times each day with no set routing

18. (i) Do you think that your students will benefit by the changes made to the College in 1991?
- (a) yes
  - (b) no
  - (c) unsure
- (ii) Would you please give brief reasons for your choice in the space provided on your answer sheet.
19. The extended operating hours of the College in 1990 has led to increased enrolments. One consequence of this is that additional promotions positions have been offered.
- Do you think that the position of Assistant Subject Co-ordinator that is being trialled this year offers you a practical new career path?
- (a) yes
  - (b) no
  - (c) unsure
20. Do you think that, as a result of the new changes implemented at Edmund Rice College this year, the staff has, in general
- (a) become more cohesive than last year?
  - (b) become more fragmented than last year?
  - (c) is equally as cohesive as last year?
21. Do you feel that, as a result of the changes implemented this year at Edmund Rice College you have become "locked" into teaching a more narrow range of year groups or subjects?
- (a) yes
  - (b) no
  - (c) unsure
22. What is your teaching classification in 1991?
- (a) G.A.

- (b) Subject Co-ordinator
- (c) Guidance Co-ordinator
- (d) Executive

23. Considering your responses to all of the above questions, how do you feel about the new school starting and finishing times implemented this year?
- (a) I like them much better than last year's school times
  - (b) I don't think that there is much difference compared to last year's school times
  - (c) I don't like them as much as last year's school times
  - (d) I am not sure how I feel about them.

Please answer all of the remaining questions in the spaces provided on your answer sheet.

24. What do you see as the major advantages for you as a teacher at Edmund Rice College under the system introduced this year?
25. What do you think are the main disadvantages for you as a teacher at Edmund Rice College under the system introduced this year?
26. What do you think are the main advantages for the students under the new system introduced this year?
27. What do you think are the main disadvantages for the students under the new system introduced this year?
28. If you have any other comments or ideas about the new school hours for this year please write them down in the space provided on your answer sheet.

**Staff Survey Answer Sheet**

Instructions: Please, clearly mark your choice of answer by crossing out the appropriate letter, e.g. A B C D

Thank you for your co-operation!

---

- 1. A B C D
- 2. A B C D
- 3. A B C D
- 4. (i) A B  
(ii)
- 5. (i) A B  
(ii)
- 6. A B C D
- 7. A B C
- 8. A B C
- 9. A B C D
- 10. A B C
- 11. A B C D
- 12. A B C D
- 13. A B C D
- 14. A B C D E F
- 15. A B C D
- 16. A B C D
- 17. A B C D
- 18. (i) A B C  
(ii)
- 19. A B C
- 20. A B C
- 21. A B C
- 22. A B C D
- 23. A B C D
- 24.
- 25.
- 26.
- 27.
- 28.

## Parent Survey

1. What class or classes do you have son(s) in at Edmund Rice College?
  - (a) years 7, 8, 9 or 10 only
  - (b) years 11 or 12 only
  - (c) at least one son in Years 7, 8, 9 or 10 AND at least one son in Years 11 or 12
  
2. (i) Do you find the travel arrangements for your son(s)
  - (a) more convenient than last year
  - (b) about as convenient as last year
  - (c) less convenient than last year
  - (d) I'm not sure  
 (ii) Would you please give brief reasons for your choice in the space provided on your answer sheet.
  
3. Have you found that your family's daily routing has been
  - (a) greatly disrupted by your son's new school hours
  - (b) a little disrupted by your son's new school hours
  - (c) virtually unchanged by your son's new school hours
  - (d) made more convenient by your son's new school hours
  
4. (i) Have the new starting and finishing times for school prevented you from participating in any after-school activities that you or your family were previously involved in?
  - (a) yes
  - (b) no  
 (ii) If you answered yes to this question please give details in the space provided on your answer sheet.

5. (i) How did you first find out about the proposed changes to the College teaching hours?
- (a) reading the College Parent Newsletter
  - (b) being told by my son
  - (c) seeing it reported in the newspaper or on the TV
  - (d) other
- (ii) If you answered other, please give brief details in the space provided on your answer sheet.
6. (i) Do you think that you were given enough information last year to prepare you for the new arrangements at the beginning of this year?
- (a) yes
  - (b) no
- (ii) If you answered no to this question, what extra information would you have found useful to know? Please write your answer in the space provided on your answer sheet.
7. (i) Do you agree with the statement that says that parents should have had a greater say in decisions that were made regarding the new school hours that were implemented this year?
- (a) strongly agree
  - (b) agree
  - (c) disagree
  - (d) strongly disagree
- (ii) Please use the space provided on your answer sheet if you would like to comment further on this question.
8. Do you think that the new starting and finishing times this year will allow your son's teachers to spend
- (a) more time with him as an individual than last year
  - (b) equally as much time with him as an individual as last year
  - (c) less time with him as an individual than last year
  - (d) undecided

9. As a result of the extended operating hours of the College this year it is possible to consider increasing the number of students in Years 11 and 12. One possibility that is now feasible is to allow Years 11 and 12 to become co-educational.

Do you agree with the following statement: Years 11 and 12 at Edmund Rice College should become co-educational, (that is, have both boys and girls in senior classes)

- (a) I strongly agree
  - (b) I agree
  - (c) I disagree
  - (d) I strongly disagree
  - (d) I am unsure
10. Do you think that the changes to the school times at Edmund Rice College will be
- (a) only a temporary measure
  - (b) a sensible, long term solution for the College
  - (c) a bad idea that should be abandoned as soon as possible
  - (d) a lot of fuss about nothing
11. What do you think has been the main reason for the changes to your son's starting and finishing times?
- (a) to fit more students into the College
  - (b) to help finance the new building program
  - (c) to employ more teachers
  - (d) to reduce class sizes

12. (i) Answer this question only if you have a son in Year 11 or Year 12  
AND a son in Years 7 to 10.
- Do you find it particularly awkward having one son finish early in the afternoon and another son finish much later in the day?
- (a) yes  
(b) no
- (ii) If you answered yes, would you please give brief details in the space provided on your answer sheet.
13. Considering your responses to all of the above questions, in general how do you feel about the new school starting and finishing times implemented this year?
- (a) I like them much better than last year's school times  
(b) I don't think that there is much difference compared to last year's school times  
(c) I don't like them as much as last year's school times  
(d) I am undecided about how I feel about them
14. Where do you live?
- (a) north of Wollongong  
(b) Wollongong, West Wollongong, Figtree  
(c) Port Kembla, Warrawong, Berkeley, Lake Heights, Cringila  
(d) Unanderra, Farmborough Heights, Dapto, Kanahooka  
(e) Warilla, Shellharbour, Barrack Point  
(f) south of Shellharbour
15. If you have any other comments or ideas about the new school hours for this year please write them down in the space provided on your answer sheet.

## Parent Survey Answer Sheet

Instructions: Please, clearly mark your choice of answer by crossing out the appropriate letter, e.g. A B C D.

Thank you for your co-operation!

---

1. A B C
2. (i) A B C D  
(ii)
3. A B C D
4. (i) A B  
(ii)
5. (i) A B C D  
(ii)
6. (i) A B  
(ii)
7. (i) A B C D  
(ii)
8. A B C D
9. A B C D E
10. A B C D
11. A B C D
12. (i) A B  
(ii)
13. A B C D
14. A B C D E F
- 15.

## Senior Student Survey

1. What is the academic year you are now in at Edmund Rice College?
  - (a) 11
  - (b) 12
  
2. What time do you usually leave home to go to school each morning?
  - (a) before 10.30 a.m.
  - (b) between 10.30 a.m. and 11.00 a.m.
  - (c) between 11.01 a.m. and 11.30 a.m.
  - (d) after 11.30 a.m.
  
3. What time do you usually arrive at school each morning?
  - (a) before 10.30 a.m.
  - (b) between 10.30 a.m. and 11.00 a.m.
  - (c) between 11.01 and 11.30 a.m.
  - (d) after 11.30 a.m.
  
4. What time do you usually arrive home each evening?
  - (a) before 5.45 p.m.
  - (b) between 5.45 p.m. and 6.15 p.m.
  - (c) between 6.16 p.m. and 7.15 p.m.
  - (d) after 7.15 p.m.
  
5. What method of transport do you usually use to get to school?
  - (a) walk or ride bike
  - (b) train and bus
  - (c) bus
  - (d) my parents drive me
  - (e) I drive

6. How would you compare the time you spend travelling to and from school this year with the time you spent travelling last year?
- (a) it takes much longer
  - (b) it takes about the same time
  - (c) it is much quicker
  - (d) I'm not sure
7. Do you find the travel arrangements
- (a) more convenient than last year
  - (b) about as convenient as last year
  - (c) less convenient than last year
  - (d) I'm not sure
8. When do you usually do your homework?
- (a) in the morning, before school
  - (b) as soon as I arrive home from school
  - (c) I do some in the morning and some in the evening
  - (d) I have no set routine for doing my homework
9. Is this time different from when you usually did your homework last year?
- (a) yes
  - (b) no
10. Have the new starting and finishing times this year made your homework/study routine
- (a) more convenient than last year
  - (b) equally as convenient as last year
  - (c) less convenient than last year
  - (d) undecided
11. Do you find the playground at recess and lunch-time
- (a) more crowded than last year

- (b) equally as crowded as last year
  - (c) less crowded than last year
  - (d) I am not sure
12. Do you find that at lunch-time you have
- (a) more time to eat your lunch than last year
  - (b) the same time to eat your lunch as last year
  - (c) less time to eat your lunch than last year
  - (d) unsure
13. In general, do you find yourself eating some or all of your meals
- (a) later than last year
  - (b) earlier than last year
  - (c) at the same times as last year
  - (d) at different times each day with no set routine
14. In general, how do you use the free time you now have in the morning under the new timetable arrangements?
- (a) I sleep longer
  - (b) I watch TV
  - (c) I do my homework and study
  - (d) I use the time for recreation and exercise
15. (i) Have the new starting and finishing times for school prevented you from participating in any after-school activities that you were previously involved in?
- (a) yes
  - (b) no
- (ii) If you answered yes to this question please give details in the space below:

16. (i) Do you think that you were given enough information last year to prepare you for the new arrangements at the beginning of this year?
- (a) yes
  - (b) no
- (ii) If you answered no to this question, what extra information would you have found useful to know? Please answer in the space below.
17. Do you think that the new starting and finishing times this year have permitted your teachers to spend
- (a) more time with you as an individual than last year
  - (b) equally as much time with you as an individual as last year
  - (c) less time with you as an individual as last year
  - (d) undecided
18. What do you intend to do at the end of Year 11 or Year 12?
- (a) leave school and get a job
  - (b) leave school and go to a TAFE College
  - (c) leave school and go to University full-time
  - (d) leave school and go to University part-time
19. As a result of the extended operating hours of the College this year it is possible to consider increasing the number of students in Years 11 and 12. One possibility that is now feasible is to allow Years 11 and 12 to become co-educational.
- Do you agree with the following statement: Years 11 and 12 at Edmund Rice College should become co-educational, (that is, have both boys and girls in senior classes)
- (a) I strongly agree
  - (b) I agree
  - (c) I disagree
  - (d) I strongly disagree
  - (e) I am unsure

20. Do you think that the changes to the school times at Edmund Rice College will be
- (a) only a temporary measure
  - (b) a sensible, long term solution for the College
  - (c) a bad idea that should be abandoned as soon as possible
  - (d) a lot of fuss about nothing
21. What do you think has been the main reason for the changes to the starting and finishing times of school this year?
- (a) to fit more students into the College
  - (b) to help finance the new building program
  - (c) to employ more teachers
  - (d) to reduce class sizes
22. Considering your responses to all of the above questions, in general how do you feel about the new school starting and finishing times implemented this year?
- (a) I like them much better than last year's school times
  - (b) I don't think that there is much difference compared to last year's school times
  - (c) I don't like them as much as last year's school times
  - (d) I am not sure how I feel about them
23. Where do you live?
- (a) north of Wollongong
  - (b) Wollongong, West Wollongong, Figtree
  - (c) Port Kembla, Warrawong, Berkeley, Lake Heights, Cringila
  - (d) Unanderra, Farmborough Heights, Dapto, Kanahooka
  - (e) Warilla, Shellharbour, Barrack Point, south of Shellharbour
24. If you have any other comments or ideas about the new school hours for this year please write them down in the space below.

**Senior Student Survey Answer Sheet**

Instructions: Please, clearly mark your choice of answer by crossing out the appropriate letter, e.g. A B C D

Thank you for your co-operation!

---

1. A B
2. A B C D
3. A B C D
4. A B C D
5. A B C D E
6. A B C D
7. A B C D
8. A B C D
9. A B
10. A B C D
11. A B C D
12. A B C D
13. A B C D
14. A B C D
15. (i) A B  
(ii)
16. (i) A B  
(ii)
17. A B C D
18. A B C D
19. A B C D E
20. A B C D
21. A B C D
22. A B C D
23. A B C D E F
- 24.

## Student Survey

1. What is the academic year you are now in at Edmund Rice College?
  - (a) 8
  - (b) 9
  - (c) 10
  
2. What time do you usually leave home to go to school each morning?
  - (a) before 7.00 a.m.
  - (b) between 7.00 a.m. and 7.30 a.m.
  - (c) between 7.31 a.m. and 8.00 a.m.
  - (d) after 8.00 a.m.
  
3. What time do you usually arrive at school each morning?
  - (a) before 7.00 a.m.
  - (b) between 7.00 a.m. and 7.30 a.m.
  - (c) between 7.31 a.m. and 8.00 a.m.
  - (d) after 8.00 a.m.
  
4. What time do you usually arrive home each afternoon?
  - (a) before 2.00 p.m.
  - (b) between 2.00 p.m. and 2.30 p.m.
  - (c) between 2.31 p.m. and 3.00 p.m.
  - (d) after 3.00 p.m.
  
5. What method of transport do you usually use to get to school?
  - (a) walk or ride bike
  - (b) train and bus
  - (c) bus
  - (d) my parents drive me

6. How would you compare the time you spend travelling to and from school this year with the time you spent travelling last year?
- (a) at takes much longer this year
  - (b) it takes about the same time this year
  - (c) it is much quicker this year
  - (d) I'm not sure
7. Do you find the travel arrangements
- (a) more convenient than last year
  - (b) about as convenient as last year
  - (c) less convenient than last year
  - (d) I'm not sure
8. When do you usually do your homework?
- (a) While I am at school
  - (b) between 2.00p.m. and 4.00 p.m.
  - (c) between 4.01 p.m. and 6.00 p.m.
  - (d) after 6.00 p.m.
9. Is this time different from when you usually did your homework last year?
- (a) yes
  - (b) no
10. Have the new starting and finishing times this year made your homework/study routine
- (a) more convenient than last year
  - (b) equally as convenient as last year
  - (c) less convenient than last year
  - (d) undecided

11. Do you find the playground at recess and lunch-time
- (a) more crowded than last year
  - (b) equally as crowded as last year
  - (c) less crowded than last year
  - (d) I'm not sure
12. Do you find that at lunch-time you have
- (a) more time to eat your lunch than last year
  - (b) the same time to eat your lunch as last year
  - (c) less time to eat your lunch than last year
  - (d) unsure
13. In general, do you find yourself eating some or all of your meals
- (a) later than last year
  - (b) earlier than last year
  - (c) at the same times as last year
  - (d) at different times each day with no set routine
14. Who is at home when you arrive home each afternoon?
- (a) at least one of my parents or grandparents
  - (b) another adult member of my family
  - (c) an older brother or sister
  - (d) no one older than yourself
15. (i) Have the new starting and finishing times for school prevented you from participating in any after-school activities that you were previously involved in?
- (a) yes
  - (b) no
- (ii) If you answered yes to this question please give details in the space below:

16. (i) Do you think that you were given enough information last year to prepare you for the new arrangements at the beginning of this year?
- (a) yes
  - (b) no
- (ii) If you answered no to this question, what extra information would you have found useful to know? Please answer this part in the space below.
17. Do you think that the new starting and finishing times this year have permitted your teachers to spend
- (a) more time with you as an individual than last year
  - (b) equally as much time with you as an individual as last year
  - (c) less time with you as an individual as last year
  - (d) unsure
18. What do you intend to do at the end of Year 10?
- (a) leave school and get a job
  - (b) leave school and go to a TAFE College
  - (c) continue on to Years 11 and 12 at Edmund Rice College
  - (d) continue on to Years 11 and 12 at another school
19. As a result of the extended operating hours of the College this year it is possible to consider increasing the number of students in Years 11 and 12. One possibility that is now feasible is to allow Years 11 and 12 at Edmund Rice College should become co-educational, (that is, have both boys and girls in senior classes)
- (a) I strongly agree
  - (b) I agree
  - (c) I disagree
  - (d) I strongly disagree
  - (e) I am unsure

20. Do you think that the changes to the school times will be
- (a) only a temporary measure
  - (b) a sensible, long term solution for the College
  - (c) a bad idea that should be abandoned as soon as possible
  - (d) a lot of fuss about nothing
21. What do you think has been the main reason for the changes to the starting and finishing times for school this year?
- (a) to fit more students into the College
  - (b) to help finance the new building program
  - (c) to employ more teachers
  - (d) to reduce class sizes
22. Considering your responses to all of the above questions, in general how do you feel about the new school starting and finishing times implemented this year?
- (a) I like them much better than last year's school times
  - (b) I don't think that there is much difference compared to last year's school times
  - (c) I don't like them as much as last year's school times
  - (d) I am not sure how I feel about them
23. Where do you live?
- (a) north of Wollongong
  - (b) Wollongong, West Wollongong, Figtree
  - (c) Port Kembla, Warrawong, Berkeley, Lake Heights, Cringila
  - (d) Unanderra, Farmborough Heights, Dapto, Kanahooka
  - (e) Warila, Shellharbour, Barrack Point, south of Shellharbour
24. If you have any other comments or ideas relating to the changes made to Edmund Rice College during 1991 would you please outline them in the space below.

**Student Survey Answer Sheet**

Instructions: Please, clearly mark your choice of answer by crossing out the appropriate letter, e.g. A B C D

Thank you for your co-operation!

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- 1.     A B C
- 2.     A B C D
- 3.     A B C D
- 4.     A B C D
- 5.     A B C D
- 6.     A B C D
- 7.     A B C D
- 8.     A B C D
- 9.     A B
- 10.    A B C D
- 11.    A B C D
- 12.    A B C D
- 13.    A B C D
- 14.    A B C D
- 15.    (i) A B  
       (ii)
- 16.    (i) A B  
       (ii)
- 17.    A B C D
- 18.    A B C D
- 19.    A B C D E
- 20.    A B C D
- 21.    A B C D
- 22.    A B C D
- 23.    A B C D E F
- 24.

## Appendix 6

### Numerical Data

Appendix 5

Survey Data

Staff Survey Results

<u>Response</u>		<u>Number</u>	<u>Percent</u>
1	A	28	51.9
	B	13	24.1
	C	7	13.0
	D	6	11.1
2	A	25	46.3
	B	10	18.5
	C	11	20.4
	D	8	14.8
3	A	2	3.7
	B	11	20.4
	C	14	25.9
	D	27	50.0
4	A	8	14.8
	B	46	85.2
5	A	47	87.0
	B	7	13.0
6	A	0	0.0
	B	8	15.1
	C	18	34.0
	D	27	50.9
7	A	11	21.2
	B	40	76.9
	C	1	1.9
8	A	8	15.4
	B	21	40.4
	C	23	44.2
9	A	19	36.5
	B	1	1.9
	C	20	38.5
	D	12	23.1
10	A	22	42.3
	B	16	30.8
	C	14	26.9
11	A	4	8.3
	B	15	31.3
	C	24	50.0
	D	5	10.4

Response		Number	Percent
12	A	12	23.5
	B	23	45.1
	C	15	29.4
	D	1	2.0
13	A	12	24.0
	B	8	16.0
	C	28	56.0
	D	2	4.0
14	A	22	41.5
	B	12	22.6
	C	4	7.5
	D	2	3.8
	E	12	22.6
15	A	5	10.0
	B	43	86.0
	C	0	0.0
	D	1	2.0
	Blank	1	2.0
16	A	45	93.8
	B	3	6.3
17	A	11	21.6
	B	15	29.4
	C	5	9.8
	D	20	39.2
18	A	28	54.9
	B	1	2.0
	C	22	43.1
19	A	28	54.9
	B	13	25.5
	C	10	19.6
20	A	0	0.0
	B	40	81.6
	C	9	18.4
21	A	14	27.5
	B	27	52.9
	C	10	19.6
22	A	37	68.5
	B	8	14.8
	C	5	9.3
	D	0	0.0
	Blank	4	7.4
23	A	33	66.0
	B	8	16.0
	C	3	6.0
	D	6	12.0

Parent Survey Results

	Response	Year 8	Year 9	Year 10	Year 11	Year 12	Percent
1	A	134	124	91	0	0	64.5
	B	0	0	0	57	46	19.0
	C	15	13	18	27	16	16.5
2	A	37	27	21	10	15	20.4
	B	84	86	73	45	25	58.0
	C	19	17	16	28	23	19.1
	D	7	4	1	1	1	2.6
3	A	9	4	6	7	7	6.4
	B	35	35	31	33	21	28.3
	C	67	63	52	29	29	43.8
	D	37	34	23	7	7	21.5
4	A	4	6	7	5	6	5.2
	B	141	131	104	78	58	94.8
5	A	76	86	67	40	32	55.3
	B	48	29	36	32	29	32.0
	C	14	9	5	3	2	6.1
	D	10	11	3	11	1	6.6
6	A	139	128	104	81	62	95.0
	B	6	7	7	5	2	5.0
7	A	22	19	14	13	5	13.6
	B	65	62	50	36	28	44.8
	C	55	44	41	35	27	37.5
	D	5	8	5	1	3	4.1
8	A	16	12	15	21	21	15.9
	B	87	70	59	36	31	52.8
	C	17	19	12	8	0	10.4
	D	25	31	24	20	12	20.1
9	A	27	32	25	17	11	20.1
	B	40	40	32	27	16	28.6
	C	32	21	21	15	14	19.0
	D	35	33	21	18	21	23.6
	E	12	11	11	9	1	8.1
10	A	12	11	10	6	4	8.1
	B	117	112	78	71	54	81.7
	C	9	8	3	3	1	4.5
	D	6	4	12	4	4	5.7

Parent Survey Results (Contd.)

	Response	Year 8	Year 9	Year 10	Year 11	Year 12	Percent
11	A	123	108	87	64	50	82.6
	B	14	13	12	10	11	11.5
	C	1	1	1	0	0	0.6
	D	5	8	5	7	3	5.4
12	A	10	8	8	11	3	31.4
	B	18	14	13	21	15	68.6
13	A	69	66	40	40	33	46.9
	B	44	41	38	19	13	29.3
	C	22	13	16	12	10	13.8
	D	8	13	14	13	5	10.0
14	A	25	22	21	15	6	16.6
	B	48	41	46	28	19	34.0
	C	19	23	13	8	14	14.4
	D	36	27	20	25	17	23.4
	E	15	16	6	7	7	9.5
	F	2	4	3	1	1	2.1

# Senior Student Survey Results

Response		Year 11	Year 12	Percent
1	A	110	0	53.4
	B	0	96	46.6
2	A	34	21	26.4
	B	24	20	21.1
	C	35	38	35.1
	D	18	18	17.3
3	A	14	5	9.3
	B	7	3	4.9
	C	30	40	34.1
	D	57	49	51.7
4	A	34	32	32.2
	B	61	50	54.1
	C	12	14	12.7
	D	2	0	1.0
5	A	23	3	12.6
	B	9	9	8.7
	C	59	42	49.0
	D	17	11	13.6
	E	1	32	16.0
6	A	44	30	36.3
	B	47	41	43.1
	C	9	22	15.2
	D	8	3	5.4
7	A	21	29	24.4
	B	39	32	34.6
	C	46	34	39.0
	D	3	1	2.0
8	A	14	14	13.6
	B	11	15	12.6
	C	66	44	53.4
	D	18	24	20.4
9	A	83	68	73.3
	B	26	29	26.7
10	A	83	56	67.5
	B	5	15	9.7
	C	14	19	16.0
	D	7	7	6.8
11	A	1	5	2.9
	B	3	9	5.8
	C	100	76	85.4
	D	5	7	5.8

Senior Student Survey Results (Contd.)

	Response	Year 11	Year 12	Percent
12	A	2	4	2.9
	B	14	13	2.1
	C	92	79	83.0
	D	1	1	1.0
13	A	55	55	53.7
	B	7	4	5.4
	C	10	8	8.8
	D	36	30	32.2
14	A	21	37	28.3
	B	5	3	3.9
	C	68	43	54.1
	D	14	14	13.7
15	A	57	38	46.1
	B	52	59	53.9
16	A	87	84	85.1
	B	20	10	14.9
17	A	29	43	35.5
	B	47	38	41.9
	C	11	6	8.4
	D	20	9	14.3
18	A	26	18	21.8
	B	8	7	7.4
	C	59	56	56.9
	D	14	14	13.9
19	A	72	47	58.0
	B	13	12	12.2
	C	6	8	6.8
	D	5	3	3.9
20	A	5	8	6.3
	B	83	80	79.5
	C	7	3	4.9
	D	14	5	9.3
21	A	79	69	74.0
	B	13	15	14.0
	C	2	0	1.0
	D	12	10	11.0

Senior Student Survey Results (Contd.)

22	A	68	55	60.0
	B	14	15	14.1
	C	13	16	14.1
	D	14	10	11.7
23	A	19	18	18.0
	B	39	24	30.7
	C	10	20	14.6
	D	30	24	26.3
	E	9	9	8.8
	F	2	1	1.5

Response		Year 10	Year 9	Year 8	Percent
1	A	0	0	172	35.9
	B	0	181	0	37.8
	C	126	0	0	26.3
2	A	9	20	26	11.4
	B	65	101	84	52.0
	C	38	40	53	27.2
	D	15	18	12	9.4
3	A	0	1	1	0.4
	B	7	10	6	4.8
	C	79	122	131	69.0
	D	41	46	37	25.8
4	A	22	19	23	13.3
	B	73	114	114	62.6
	C	29	37	32	20.4
	D	3	9	6	3.7
5	A	20	23	23	13.7
	B	13	16	14	8.9
	C	70	117	103	60.3
	D	24	23	35	17.0
6	A	12	22	19	11.2
	B	85	92	83	54.9
	C	20	38	48	22.4
	D	10	23	22	11.6
7	A	24	37	44	22.1
	B	78	79	76	49.1
	C	22	40	39	21.3
	D	3	19	14	7.6
8	A	5	13	6	5.0
	B	33	66	75	36.2
	C	26	44	37	22.2
	D	63	56	57	36.6
9	A	40	90	105	48.9
	B	87	87	69	50.5
10	A	63	121	121	63.7
	B	43	32	32	22.3
	C	7	11	8	5.4
	D	14	14	13	8.6
11	A	19	25	35	16.6
	B	33	53	42	26.9
	C	64	70	66	42.0
	D	11	28	30	14.5

## Junior Student Survey (Contd.)

Response		Year 10	Year 9	Year 8	Percent
12	A	3	10	11	5.0
	B	21	32	34	18.2
	C	97	118	112	68.6
	D	6	17	16	8.2
13	A	12	13	9	7.1
	B	58	78	89	47.5
	C	31	38	33	21.4
	D	26	46	42	23.9
14	A	51	89	83	47.0
	B	13	24	15	11.0
	C	3	16	13	6.8
	D	59	47	61	35.0
15	A	11	7	8	5.4
	B	116	170	167	94.6
16	A	113	160	146	90.1
	B	10	12	24	9.9
17	A	14	19	24	12.1
	B	55	71	72	41.9
	C	33	43	32	22.9
	D	25	41	43	23.1
18	A	14	14	11	8.3
	B	4	7	7	3.8
	C	101	130	132	76.9
	D	8	23	21	11.0
19	A	111	145	129	80.1
	B	7	21	28	11.7
	C	1	3	4	1.7
	D	5	5	3	2.7
	E	3	3	10	3.3
20	A	10	14	12	8.3
	B	94	139	147	78.7
	C	12	8	6	5.4
	D	11	17	9	7.7
21	A	109	137	142	81.3
	B	12	23	9	9.2
	C	2	3	6	2.3
	D	4	15	15	7.1
22	A	91	137	140	77.5
	B	16	14	11	8.6
	C	13	12	8	6.9
	D	7	13	13	6.9

Junior Student Survey (Contd.)

Response		Year 10	Year 9	Year 8	Percent
23	A	25	28	28	17.1
	B	52	61	57	35.8
	C	12	28	25	13.7
	D	24	36	41	21.3
	E	13	18	18	10.3
	F	1	4	4	1.9

## Appendix 7

### Co-Education: Another Option

**Problem: Is co-education a viable alternative for Years 11 and 12 of the College?**

The following discussion is offered as a further example of the organisational flexibility that the extended hours model can provide for schools.

As stated earlier, Edmund Rice College is an all-boys school. There had been some informal debate amongst the staff concerning the issue of co-education. Many staff members supported philosophically the ideal of the College becoming a co-educational school but were convinced that practicalities would work against such a change. Problems envisaged included a lack of facilities, parent opposition and an uncertain demand for the service.

Catholic secondary education in the region was catered for by four schools. The northern and southern suburbs of the Illawarra housed Holy Spirit and Saint Josephs, both comprehensive co-educational institutions. Situated in Wollongong itself were Saint Mary's, an all girls school, and Edmund Rice College. These two schools were independent Catholic schools. The other schools were Diocesan Schools, being centrally administered by the Catholic Education Office in Wollongong.

From the point of view of the staff at Edmund Rice College, amalgamation with Saint Mary's would be undesirable as this would most likely jeopardise the independence of the College. Equally, there was no apparent demand or desire on the part of Saint Mary's to seriously explore this idea, although no formal proposals had been made by either party.

There was a number of cogent educational arguments for allowing the senior section of the College to become co-educational. The idea of extended hours of operation suddenly meant that the previous barrier of insufficient facilities might no longer be insurmountable. Hence Lear, (1990), included the following in his submission to the staff:

*"Although preliminary investigations show that the economic viability of the project is not dependent on a co-*

*educational senior school, the broad educational/social considerations may well carry sufficient weight for this to be a realistic proposition. Government regulations require at least 2 years notice of such a change in nature. The necessary preliminary notification should be given so that this option remains a possibility from the beginning of 1993."*

It should be stressed that this proposal was not seen as an integral part of the initial plans. It was merely an educational proposition that could later be given serious consideration.

The analysis of the following question reveals the responses of the Edmund Rice school community to this option.

**Table A7.1**

**The Co-education Question**

As a result of the extended operating hours of the College this year it is possible to consider increasing the number of students in Years 11 and 12. One possibility that is now feasible is to allow Years 11 and 12 to become co-educational.

Do you agree with the following statement: Years 11 and 12 at Edmund Rice College should become co-educational. (That is, have both boys and girls in senior classes)

	Parent	Staff	Senior Students	Junior Students
(a) strongly agree	20.1%	41.5%	58.0%	80.1%
(b) agree	28.6%	22.6%	12.2%	11.7%
(c) disagree	19.0%	7.5%	6.8%	1.7%
(d) strongly disagree	23.6%	3.8%	19.0%	2.7%
(e) unsure	8.1%	22.7%	3.9%	3.3%

The question of co-education has been shown by these responses to be a potentially divisive one. The question touches cultural, emotional and intellectual attitudes of the school community.

Edmund Rice College must compete in the educational market place for its student population. Its administrators must, therefore, be sensitive to the views of that market. 24% of parents indicate that they strongly disagree with the idea of co-education, and hence careful consideration must be given to the costs and the benefits of such a change. The strong polarisation of parent opinion indicates that much consultation should be entered into before this proposal is implemented.

Many schools in NSW are actively competing for the approval of parents in order to improve or even maintain enrolment numbers. The response from the Edmund Rice College community on the question of co-education highlights the need for school administrators to carefully consult the market before embarking on ideas that seem appropriate from the administrators perspective. If the administrators' of Edmund Rice College had simply canvassed their teaching staff on the question of co-education they would have been ignoring very strong views held by a significant proportion of their potential clients.

Edmund Rice College has not pursued this option any further.