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**A CASE STUDY OF TEACHERS' PERCEPTIONS
IN A CULTURE OF CHANGE**

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ABSTRACT

The purpose of this research is to examine the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. Unless the experience of teaching is considered from the perspective of teachers, educational change could become professional rhetoric.

The research seeks to understand why some educational changes are perceived by teachers as being more effective than others in improving the teaching - learning interface at a particular secondary college. It explores why the staff have been influenced or not by the ongoing educational change over the past five years.

In designing research to respond to teachers' perceptions, an interpretive paradigm using ethnographic and case study principles was used. The following research questions emerged to focus the research:

1. What influences have produced a change in the way teachers do things at the teaching - learning interface?
2. What factors made the changes difficult or easy to implement?
3. What contributed to or detracted from the personal motivation and energy of teachers to participate in the change process?
4. How have teachers been able to manage the time available for change?
5. What are some of the ways teachers have changed their thinking and doing with regards to teaching and learning?
6. What is the nature of relationships that have influenced the teacher to change?

The study concluded that the successful implementation of continual renewal of what we do in the classroom comes from within the community and from within the

individual and not by the hierarchical passing down of rules and regulations. Moreover it is concluded that, for successful educational change, the staff and college need a clearly articulated and agreed focus and vision for what they are doing.

DECLARATION

“I certify that this does not incorporate without acknowledgments any material submitted for a degree at any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text”.

.....

John Percy

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1. Chapter One: THE RESEARCH DEFINED

1.1 *Introduction*

Change is something that is familiar to us. We live with change daily as it happens to our environment, the people around us, our country, the world, even the universe. Improved communication brought about by the explosion in information technology has made us aware of change on a global scale. We are in a sea of ‘news’, ‘current affairs’ and an array of market reports, all giving us ‘up-to-the-minute’ information on changes around us. This culture of change can seem external, sometimes fearful and numbing, and to some extent we can feel a ‘victim’ of change.

Educational change in Queensland has a long history of governments imposing change by legislation. The reasons for educational change have been well documented, for example, in the Wiltshire Review, “Shaping the Future”(1994) and the Cummings Report, “Coordinating Diversity: Directions for Post-Compulsory School Education” (1996). Notwithstanding, there remains a question of how successful mandated change has been. As well, many schools are very conscious of providing the best education for their students. The Effective Schools Project (1992) documents the initiatives of over 829 schools in an attempt to identify what makes schools more effective. The research presented in this paper is timely because it is in this culture of change that teachers are striving to deliver quality learning. Unless we consider educational change from the perspectives of teachers, it may well be reduced to professional rhetoric.

1.2 *The purpose of the research*

This case study examines the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. The study will extend the supporting literature in its understanding of how and why teachers change (or indeed not change) and how they perceive teaching and learning in this particular school setting.

1.3 Background of the research

The college used for this research has provided secondary education for thousands of boys since 1891. It was originally staffed by the Christian Brothers who ran it as a boarding school to cater for the educational, spiritual, social, physical and recreational needs of boys from physically isolated communities scattered throughout the new immigrant colony of Queensland.

The Christian Brothers' education kept one pace ahead of development and, just as Edmund Rice had done, it strove to serve all parts of society (Boland, 1991).

During the sixties two major factors played a part in the necessary renewal of the system. Firstly, the diminishing numbers of Christian Brothers has meant lay teachers (those not Christian Brothers) gradually filled many positions of responsibility in the college. The second factor was the increased student numbers and the stress on existing facilities it created due to the post-war baby boom and increased immigration levels. The justice of providing courses of study which, in breadth and depth, cater for all students and for the careers to which their talents best suited (Tuner, 1992), ensured change continued to characterise the history of the college.

The present principal is a Christian Brother who promotes and encourages change to improve the teaching and learning throughout the college. This study follows the five years of significant and planned educational change that has occurred throughout his period of principalship. The process started in 1993 with a whole school curriculum review "Creating the Future" led by the educational consultant, Beryl Evans. It involved the staff working in Planning Committees to draw up strategic plans for each of the areas of Pastoral Care, Special Needs, Unitisation / Integration, Teaching / Learning / Core, Post-compulsory Education, Timetabling, Assessment / Reporting, and

Inservice. These plans were submitted to staff for consideration and discussion of the future direction of curriculum development at the college.

The context for this development could be described as a large, all boys school steeped in the traditions of the Christian Brothers. The students attending the college come from a variety of backgrounds such as overseas (including about 120 Asian and Papua New Guinea students), the country areas of Queensland and interstate and the metropolitan communities. About half of the 1300 students are boarders. Boys from one parent families, boys who are financially supported by the school community, and boys with physical and emotional problems are part of this cultural mix.

Over these five years, the college has expanded physically (new Technology, Science, Art and Sporting facilities) as well as in population. It has grown from about 1000 students to about 1400 students. The resultant expansion in staff to meet the greater numbers of students and curriculum diversity has allowed the college to employ staff with a vision for some of the changes planned.

1.4 Literature background of the research

1.4.1 The raison d'être for educational change: Student's progress at school is linked to socio-economic factors.

Up until the mid-1970s, many investigations appeared to confirm the notion that a student's progress at school and their academic success are more closely associated with home background than with the nature of the school. In Great Britain, the Robbins Report (1963) showed that a student's school record is predictable from the socio-economic status of the parents. As well, the Coleman Report (1966) in the USA found that schools had little influence on the achievement of their students independent of the student's background and general social context.

Australian studies, for example, the team of researchers from the Centre for Research in Measurement and Evaluation in NSW (Moore, 1974 in Beare, Caldwell & Millikan, 1989) indicate that parent's satisfaction with the school appears to be an accurate gauge of how well the student is performing. They concluded that if the variables, parent's satisfaction with their child's schooling, their socio-economic level and their occupation are programmed into a computer it could be accurately predicted what year the student will finish schooling, their achievement level at that stage and their likely occupation.

The curriculum structure at this time seemed to be reinforcing the status quo and this became a social justice issue. Some educationalists became interested in different ways of structuring the curriculum so that all students could develop their potential and not be limited by their socioeconomic background. One strategy involved parents because of the impact that home and family can have on educational outcomes. There were also a variety of 'open education' techniques used and a range of assessment and reporting techniques employed. As a result, the management of schools became more complicated (Beare, Caldwell & Millikan, 1989).

1.4.2 A changing social context

Since the mid-1970s there has been a change in the global thinking on the way we now regard and manage our schools. The social context of this time was also ready for change. There was the feminist movement, war on poverty, civil rights, the new international economic order and the alternative schools movement. People started to question whether conventional schools were unwittingly reinforcing an unjust social order with cultural reproduction of notions of class distinctions and privilege. Research began to focus on case studies on changes in pupil achievement to demonstrate quality of schools (Beare, Caldwell & Millikan, 1989).

1.4.3 A change of direction: Federal Government school based funding linked to targeted programs.

With the election of the Labor Government in 1972, and the subsequent appointment of the Schools Commission in 1973, there was a sharp increase in resources for schools (Cruz & Sheehan, 1978). This Commonwealth funding was usually linked to targeted programs such as : the disadvantaged schools program, school level evaluation, transition education, and specific purpose grants, such as: computers, girls and sport, girls in science and mathematics. Other developments that were occurring were:

- increasing devolution of responsibility to individual schools;
- Catholic schools were becoming more and more linked into centralised systems;
- continuing movement into higher education;
- a deteriorating economic situation;
- schools used as a refuge from unemployment that was on the increase (Cruz & Sheehan, 1978).

The 1978 report of the Commission indicated that curriculum development was to become a focus of its funding. This was to be within a framework which accepts the importance of knowledge, skills and understandings to enable people to control their own futures (Cruz & Sheehan, 1978).

1.4.4 School focused change

The school based curriculum development up until 1978 was typified by the first two phases of Fullan's (1991) four phases in the evolution of educational change: adoption (1960s) and implementation failure (1970-77). These first attempts were born in the post-Sputnik advocacy of inquiry-oriented and student-centered instruction but with little understanding of why or how to implement change successfully. For example, a Western Australian initiative in this area was to be a collaborative venture incorporating the professional development of teachers in the development of programs based on local needs. In their evaluation however, Lankester and Deschamp (1981) found that

the increased funding did not ensure success in terms of school communities working together to bring about change. They found that the major use of funding was in the purchase of materials and equipment. Teachers had included new content and accessed new resources without changing the *process* of teaching and learning.

The next two phases that Fullan gives are implementation success (1978-82), and intensification vs. restructuring (1983-90). These phases illustrate the relatively short cycle educational change has had to evolve. In 1984, the Schools Commission launched PEP, a Participation and Equity Program. This program would:

place special emphasis on curriculum-based school improvement plans ... (with) concerted effort centering on fundamental improvement to the secondary curriculum as a whole (Commonwealth School Commission, 1984:14)

Funding was now focused on the development of people and their skills, capacities and attitudes, rather than the purchase of material or equipment (McRae, 1988). Action research became a familiar process.

As economic rationality became increasingly dominant, educators were being asked to be accountable, productive, return to basic learnings and make better use of existing resources. Schools were being asked to be effective and efficient (Beare, Caldwell & Millikan, 1989). The implications of having to show effectiveness is that schools need objectives, targets of achievement and outcome measures which measure effectiveness. By 1989 the Australian Education Council had developed a "National Statement" and "The Profiles" in eight broad learning areas. Queensland adopted these profiles in the form of "Student Performance Standards" and defined learning outcomes for each of the "Key Learning Areas" (Queensland Department of Education, 1993).

In summary, the historical development of educational change has been based on funding and evaluation at both Commonwealth and State level.

1.4.5 The Church: an era of changing involvement in schools

The Catholic church at this time was also coming to terms with its post-Vatican II mission. The events and the documents of the Second Vatican Council are still having an effect today and are still influencing the renewal of the Catholic church (The Archdiocese of Brisbane, 1994). John XXIII believed in the goodness of the world and in the possibilities of progress. In other words, he was positive and proactive and saw the hand of God in human progress. The Pope called for an ecumenical council to bring the church up to date so that it could face the challenges of the twentieth century (Marinelli, 1992). Pope John XXIII died in 1963 and was succeeded by Paul VI who continued the council.

Various issues were debated, statements rewritten and revised until eventually accepted. One of the most important of these was 'Lumen Gentium': the Dogmatic Constitution on the Church. It changed the thinking of the church as a hierarchy to describe it as a "mystery" and as the people of God. Holiness is seen as the vocation of all Christians and the authority of the pope is set in the context of collegiality and subsidiarity (Marinelli, 1992). Finally, the council recognised that the church consisted of all the baptised and not just the Roman Catholic Church.

The image of Church as a community of people united by a common inner life of the spirit was central to Project Catholic School (McLay, 1979, p. 4):

The community model of the Church, seen specifically as the Body of Christ, has moreover a corporate quality that points to the Church as a system interacting with its environment in the manner of an organism. It has, therefore, to adapt continually to changes in its external situation so as to continue to fulfil its purpose. There is a peculiar affinity between such an ecclesial community-oriented image and the organismic or systemic model of administration, now popular in management theory.

The project stresses the dignity of the individual and the value of the person and the need to educate for justice. Up until this time there was perceived to be a close correspondence between what was taught in the home, school and the church.

However the 1970s and 1980s saw a shift from a predominantly religious to a predominantly lay-staffed education system. As a result of this shift, the homogeneous Catholic subculture changed so that there became a pluralism of beliefs and values amongst the staff, students and parents (O'Rourke, Spry & Sultmann, 1994). The implications of this is reflected by uncertainty in cultural identity and purpose (Treston, 1992, in O'Rourke, Spry & Sultmann, 1994). Catholic education recognised the need for new administrative models that would assist school communities to maintain its historic concern for holistic education, social justice, pastoral care and community whilst embracing opportunities that would serve to enhance the quality of Catholic education (McLay, 1979, in O'Rourke, Spry & Sultmann, 1994). The conference of Catholic Education, Queensland (1986) issued a policy statement on the self-renewing process which was to reflect Gospel values and focus on distinctive characteristics of a Catholic School.

Implicit in this way of thinking is that change is a permanent factor in the way we operate our schools and that it is linked to individual growth and understanding of the Gospel values. It requires a major paradigm shift in the way we operate and structure our schools. In essence, the move is from the bureaucratic model of control to a more appropriate empowering model of school managed change within the constraints of the Board of Senior Secondary School Studies and the new Queensland Schools Curriculum Council. It is also a move away from the 'effective school' approach of analysing change in terms of externally applied lists that characterise effective schools.

1.4.6 Educational change occurring on a global scale.

An increase in the rapidity and ease of international electronic communication has made us aware of the changes to schooling and school systems internationally. These changes have been moulded by different cultural settings to create differences in emphasis, structure and rate of movement for school reform. A particular feature of

recent reforms is the sense that everyone is keeping in touch with what the other is doing - there is more sharing of information at a system and policy level (Gronn, 1996).

Two aspects of this global communication are worth mentioning. Firstly, a positive aspect is that relevant research outcomes are shared quickly and given international consideration. There is a willingness for collaboration between the researchers, policy makers and practitioners to make the new initiatives work and transcend the old paradigms. The second aspect is a danger that we all become similar in our thinking and lose our cultural diversity. This can be exacerbated by a trend for standardising performance indicators, international ratings and testing to make comparisons between countries in search of the 'best' in producing academic students (Gronn, 1996).

1.4.7 Commonalities in educational change

Commonalities in educational change that could act as reference points to examine teacher perceptions have been identified from the above. These have been listed in terms of movements from the old perceptions to the new perception.

- uniformity to divergence and plurality;
- content emphasis to processes that are knowledge referenced;
- linearity & rigidity to flexibility, freedom of choice and divergence;
- knowing to understanding;
- hierarchical structures to decentralised but accountable structures;
- respect for position to respect for the person;
- emphasis on pass/fail (competitiveness) to outcome/performance based assessment;
- individualism to collegiality and community;
- expertise to collegiality and subsidiarity;
- system centred to person centred; "if only" to "if I" or "if we";

- change that reinforces the status quo to renewal based on social justice

1.5 The problem defined

In contrast to externally imposed change it is recognised that teachers initiate and produce change, they filter, accept, reject, adopt, select and interpret reform policies in creative ways (Blackmore, Bigum, Hodgens, Laskey, 1996). It is clear that a teacher's perception of change will influence the capacity to accept change.

1.6 Significance of the research

Schools are continually under scrutiny by the public and Governments to be efficient, effective and produce graduates for a society with ever increasing demands (Wiltshire, McMenniman & Tolhurst, 1994, p4). Nationally, a large number of school improvement projects have been tried, analysed and assessed in the attempt to find the definitive solution to effective teaching and learning (McGraw, Piper, Banks & Evans, 1992).

A reevaluation in the way we go about educational change from the teachers' perspective might give greater insight into this complex issue. This research acknowledges the fact that for real change to occur, it has to make a difference to the teaching and learning happening at the chalk-face. This study will demonstrate the importance of teachers' perceptions in affecting this change and by harnessing their potential, effective ongoing educational change and renewal can be realised.

1.7 The research questions

Question 1: What influences have produced a change in the way teachers do things at the teaching - learning interface?

Question 2: What factors made the changes difficult or easy to implement?

Question 3: What contributed to or detracted from the personal motivation and energy of teachers to participate in the change process?

Question 4: How have teachers been able to manage the time available for change?

Question 5: What are some of the ways teachers have changed their thinking and doing with regards to teaching and learning?

Question 6: What is the nature of relationships that have influenced the teacher to change?

These six questions act as a holistic guide to the research design so that appropriate and valid instruments are used to explore teacher's perceptions in a culture of change.

1.8 The limitations of the research

As the research is a study of one particular college, at this time and in context, it makes an unqualified generalisation of the outcomes inappropriate.

1.9 Outline of the research

The following chapters will tell the story of educational change from the perspectives of teachers working in a culture of change. In order to establish a framework from which to focus the research and to analyse the data, the scholarly literature will be reviewed in chapter two. The review will reveal six basic principles that underpin the process of change.

Next, in chapter three, the design of the research undertaken will be explained. The adopted methodology is described and the instruments used to gather the data are outlined in the context of the study. Important to this process are the issues of ethics, trustworthiness, validity and reliability which are discussed in this Chapter.

Chapter four analyses the data gathered by this research and draws together the findings under common themes. Chapter five presents the conclusions to the six research questions generated from the literature review in chapter two. These last two chapters (five and six) identify key issues that may be useful in both this situation and in other contexts of educational change.

2. Chapter Two: LITERATURE REVIEW

2.1 The purpose of the research

This case study examines the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. The study will extend the supporting literature in its understanding of how and why teachers change (or indeed not change) and how they perceive teaching and learning in this particular school setting. This section explores the supporting literature on coping with change and school culture.

2.2 Outline of the literature review

The supporting literature on educational change has altered the way we now approach school-based change or cope with imposed change. Even with this knowledge of the processes for effective change, too little seems to affect the quality of the teaching and learning at the 'chalk face' (Hargreaves, 1994). Educational change is difficult and complex and although there has been a lot of research into the technical aspects of change, there has been little attention given to the way teachers perceive the process. This review will use six concepts from the science of change in the natural world: force, momentum, energy, time, work and power to understand the complexity of educational change with regard to the way teachers experience it. Before gaining an understanding of these concepts, some key terms are defined.

2.3 Definition of terms

2.3.1 Change

Change is a process not an event. It is only when we start to understand the change process and find meaning in it personally as well as socially that we develop a sense of

what should change and how to go about it (Fullan, 1991). We can learn from experience and with the benefit of hindsight we become 'wise-after-the-event'. However, there is a lot to be learnt from recent literature that can help us understand educational change so that it can become a positive process in our schools.

Educational change can arise from internal or external sources and it can be planned or incremental (Hopkins, Ainscow & WEST, 1994):

Table.1: A typology of change (Hopkins, Ainscow & WEST, 1994).

	Internal	External
Planned	Purposive	Innovation
Incremental	Personal development and growth	Environmental

Planned change combines both internal (purposive) and external (innovation) in an attempt to improve the present situation. If it is to have any meaning at all it needs to impact on the way we do things in the classroom. In practice, this will usually involve (1) new materials, technologies and resources, (2) different teaching strategies and (3) alteration of beliefs (Fullan & Stiegelbauer, 1991).

A danger is that we can confuse the terms *change* and *progress* (Fullan, 1991, p4). Not all change is good change nor does it lead to effective improvement in the teaching and learning process and could explain why we have had a lot of *innovations* without change. The formidable task of curriculum change is summarised by Rudduck (1991, p30) thus:

We know that curriculum change is not a simple, mechanical process that needs an expert kick to get it going when it stalls. We know that the quick fix of the curriculum package is not enough. We know that we have to tackle issues of process and assessment alongside issues of content. We know that we have to plan in terms of the curriculum as a whole. But the main achievement in our learning is that we are beginning to see change not simply as a technical problem but as a cultural problem that requires attention to context and to the creation of shared meaning within working groups.

“Attention to context” challenges us to move on from first-order changes that improve the quality of what is currently done to the challenge of second-order changes that affect the culture and structure of schools (Fullan, 1991). These second order changes are often referred to as *renewal* and require the development of a shared vision and the creation of a productive work culture (Leithwood, 1994). In a Catholic school, renewal includes the process of holistic development within the context of *Gospel values* (Spry and Sultmann, 1994).

The “development of shared meaning” is not an easy task either, and it also takes time. The difficulty is to remain focused on our values and goals and the school’s mission whilst dealing with the socio-political process, explained by Fullan (1991, p5), as:

involving all kinds of individual, classroom, school, local, regional, and national factors at work in interactive ways. The problem of meaning is one of how those involved in change can come to understand what it is that should change and how it can be best accomplished, while realising that the what and how constantly interact and reshape each other.

An important point is that teachers are social learners and a consequence of this is not just to recognise their *capacity* to change but also to recognise their *desire* for change and stability (Hargreaves, 1994, p11). Valuable insights for effective change can be made if we understand the teacher’s own desires for change and for conservation along with the conditions that affect these desires (Hargreaves, 1994). Teachers who have been operating ‘successfully’ under an old paradigm have an established and habitual way of teaching. There is a tendency for some of them to become defined by a stereotypical way of doing things and any attempt to alter this can be resisted out of fear of loss of identity. For others, it can be a fear of moving out of their comfort zone. The

severity of this fear is proportional to the degree of change being mooted, however if this resistance is not overcome through collegial support then there becomes a lack of energy and commitment that is characterised by negativism rather than revitalisation and life-giving. This is succinctly put by Covey (1996, p4) who states there are three necessary components to making a 'habit': "*Knowledge* is understanding what to do and why to do it; *skill* is knowing how to do it; *desire* is motivation or wanting to do it."

Much of the educational change that has been attempted has relied on the first two of these principles but ignored the latter. Perceived deficiencies in educational standards are often seen as the need for intervention to make teachers more skilled, more knowledgeable and more accountable. The message coming through is that somehow teachers are not competent enough and 'in-service' is imposed to get them up to scratch. There is often a feeling of disregard for what is already happening.

Change involves the adaptation or abandonment of practices that are familiar and therefore comfortable. If change is seen as a denial of a person's professional past, then his or her investment in a change programme will at most be slender (Ruddick, 1991).

More recent educational reforms have included the third component of *desire* by focusing on cooperation and collaboration. However, if this is done in a contrived and controlled manner the process can remove the spontaneity, sensuality and creativity, and stifle the basic desire to teach (Hargreaves, 1994). In other words, how change is put into practice determines to a large extent how well it succeeds (Fullan, 1991,p29). Our Mission Statement (see appendix 7.6) asks us to act justly and with compassion and that we are all part of a College family where every person is respected. Therefore, part of transformative change is focussing on the development necessary for teachers to make the shift to the new paradigm (Beck, 1992). How we do this also becomes a model of the process for teachers to relate to students. It emphasises an ethic of caring that subsumes but not negates academic achievement, vocational competence and economic well-being.

Caring comes, not from memos and announcements, but from the bonding that results from joint efforts. Correspondingly, long-term persistent, committed efforts do not come from the head, they come from the heart. Achievement is powered by

caring and committed personal relationships (not tangible rewards or intellectual rationales) (Beck, 1992).

The awareness of teachers in the vital role they play in the long term success or otherwise of the College invites an understanding of our culture.

2.3.2 Culture

Cultural life is identified by particular beliefs, routines, and rituals. By understanding the culture of organisations and individuals we are able to gain insights into how differences in organisational behaviour occur and indeed how our own behaviour is interpreted by others (Morgan, 1986). Schools are organisations with their own patterns of belief, shared meanings and historical ways of doing things that provide the context for developing particular teaching strategies. The cultures of teaching are of particular significance in understanding what the teacher does and why the teacher does it. However, this culture can become fragmented and divided into subcultures with different ways of thinking, have different aspirations and can influence the overall ability of the school to deal with change (Morgan, 1986).

What they do there in terms of classroom styles and strategies is powerfully affected by the outlooks and orientations of the colleagues with whom they work now and have worked in the past. In this respect, teacher cultures, the relationships between teachers and their colleagues, are among the most educationally significant aspects of teacher's lives and work... What goes on inside the teacher's classroom cannot be divorced from the relations that are forged outside it (Hargreaves, 1994, p165).

Culture can be considered to have two dimensions: content and form (Hargreaves, 1994). The content dimension is "the way we do things around here"; the attitudes, values, beliefs, habits and assumptions (Fullan, 1991). The form dimension is the way relations between teachers and their colleagues are articulated. Changes to the content of a culture requires a prior or parallel change in the form, that is, in the way teachers relate to their colleagues and in their characteristic patterns of association (Hargreaves, 1994). This will be significant in understanding the variable effects on teacher development and educational change.

Fundamental educational change is even more complex than the above literature has acknowledged. Schools are learning communities (Johnson, 1996) and the collaborative work culture that typifies such communities needs to take into account the *emotional relationships* and *passions* of its teachers and students. Emotional intelligence explores the appropriateness of emotion and its expression and develops a caring attitude towards the community (Goleman, 1995). . The Second Vatican Council theology gives us direction. In the words of Pope Paul VI: “Before we speak we must take great care to listen to what people say but more especially what they have in their hearts to say. Only then will we understand them and respect them ...”. This relies on ‘relational power’ (Edwards, 1987) and the capacity to influence and be influenced by others. It requires participation and the empowering of others to be part of the decision making and the creation of a vision.

There is a paradox here. Empowerment is often associated with known goals, proven skills and ability to do the job and accepted values. This contrasts to the need for individual growth that occurs when we are open to experience, accept being weak, powerless and vulnerable at times (Moore, 1992). Allowing growth to occur will require continuing support and encouragement for the process of empowering others to implement change within a communal environment. It involves understanding and respecting the gifts of others: “Just as each of us has one body with many members, and not all the members have the same function, so too we, though many, are one body in Christ and individually members one of another.” (Rom 12:4-5). By encouraging others to develop their gifts we help the community to grow. This includes people willing to critique and dialogue with truthfulness; who are not agitators but act with authenticity, peace, kindness, trustfulness and self-control (Arbuckle, 1993).

Another aspect of culture that needs further exploring is its soul which will be developed in the next subsection.

2.3.3 Soul

Soul refers to the imaginative possibilities in our nature. It is a deep creative force whose very essence is *love*, more than emotion, desire or sentiment (Sardello, 1996).

If I have all the eloquence of men or of angels, but speak without love, I am simply a gong booming or a cymbal clashing. If I have the gift of prophesy, understanding all the mysteries there are, and knowing everything, and if I have faith in all its fullness, to move mountains, but without love, then I am nothing at all. If I give away all that I possess, piece by piece, and if I even let them take my body to burn it, but am without love, it will do me no good whatever (Corinthians 13: 1-3).

This quote by St Paul makes it clear that in creating the future our soul needs to enter into all we do, whether it be of a scientific, technical or economic nature. It is an active process that requires a development in our reflective consciousness and our intuition of what is good and what is unhealthy (Sardello, 1996). It will bring a corresponding development to the spiritual culture of the community. The spiritual culture will not persist on its own, however, for us to participate in and to be taken care of. Soul needs to be continually recreated in the individual for its effect to be seen as a community. This is a case of "what you sow is what you reap". It involves being able to observe our community and understand the relation between individual soul and the soul of the College (Sardello, 1996). It is often expressed in the ways we go about creating and sustaining closeness in our relationships and friendships and a sense of community (Moore, 1994).

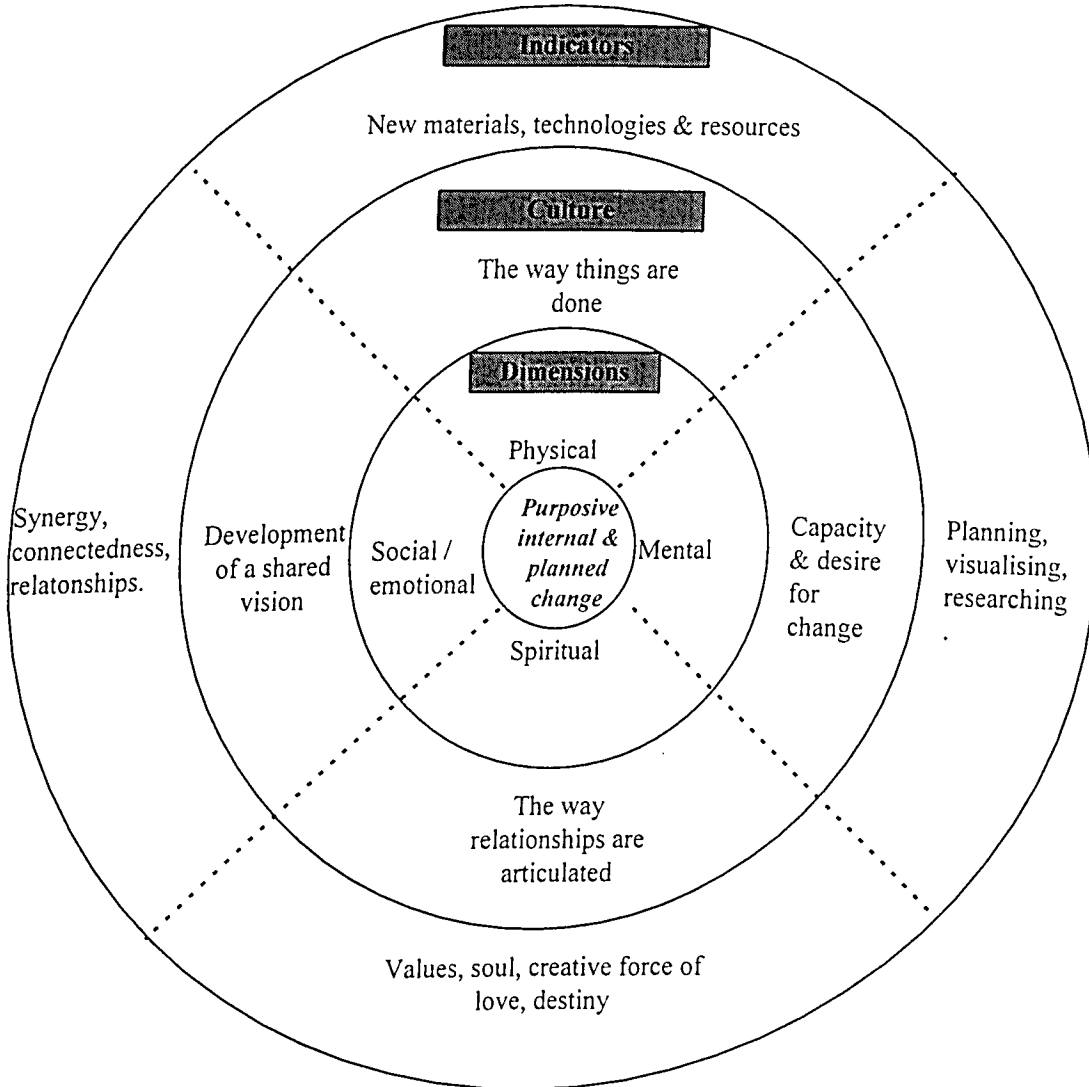
Another aspect of soul is the sense of personal calling that gives us hope and faith and that there is a reason I am alive. It uses beauty, mystery and myth to romanticise our lives. When we feel we are the victim of change, of genetics or of psychology, our soul can bring us back to a feeling of destiny (Hillman, 1996). We are not the result of a process but like the result of a master jeweller removing the excess from a diamond stone to reveal the brilliant facets of our original image. The implication of this is that each student and teacher has their own gifts and there is a need to recognise these as indicating what their destiny might want. This change in thinking is what Edward De Bono calls a change from "rock" logic to "water" logic. If our way of perceiving the

world has become hard, permanent and unchanging, it has become stereotypical and rock-like in its form. There is a danger of becoming the victim of theories before they are put into practice. On the other hand, water logic flows with an emphasis on “to” rather than “is”. It takes the form of the vessel in which it is placed. Water logic is more conducive to growth and context.

In the context of Catholic education, the emphasis for transformational change is not necessarily on doctrine and behaviour but on a need to experience faith more in terms of liberation, enrichment and meaning (Kelly, 1990). Part of the culture of teaching is service to a learning community where teachers are seen as mentors and facilitators of a curriculum of ‘conscience’ and ‘soul’ not just a curriculum of ‘content’ (Cook, 1989).

The following diagram summarises the above concepts in an attempt to show their relationships in a single construct.

Figure 1: Purposive change summarised.



2.4 The six elements through which to explore perceptions of change.

Seeing change in a positive frame of mind; as an opportunity for human development and being proactive in the provision of quality education is a part of school renewal (O'Rourke et al, 1994). Managing change however is a socially complex task (Fullan & Stiegelbauer, 1991).

Analysing the processes and the way an organisation functions can be done by using a combination of metaphors (Morgan, 1986). To study and understand the complexity of

educational change through the eyes of teachers, the scientific principles of *motion* form an appropriate framework. Change to the state of equilibrium has been the focus of attention of many great thinkers throughout the ages. Aristotle (384-322 B.C.), Galileo (1564-1642), Newton (1642-1727) and Einstein (1879-1955) to name a few. They have developed the notions of *force, momentum, energy, time, work and power* to help unravel the complexity of concepts when bodies change their state of motion. These six concepts taken metaphorically will also help to synthesise the abundant relevant literature on educational change in a coherent way.

The principles of physics which relate to change give us a conceptual framework to explore further the dynamics of change in a social context. The following review of the literature within this framework will also illuminate those perceptions which are *transformative, centripetal* or maintain *equilibrium*. Given that the purpose for educational change is to produce better teaching and learning by replacing some structures, practices and beliefs with new ones, then how teachers actually experience change as opposed to what may have been intended will largely determine its success (Fullan, 1991). Transformative change brings about a shared meaning that draws people together to cooperate in achieving a common vision (Marris, 1975; Treston, 1994; Fullan, 1991). Centripetal changes are those that keep things moving in circles so that there is movement but no progress. On the other hand, equilibrium is maintained by *vector* forces that oppose or balance each other and no resultant movement results. These concepts invite further development.

2.4.1 Force

Force is that which produces or tends to produce a change in the state of motion of a body. It is recognised by the effects it produces (Haber-Schaim, Dodge & Walter, 1981). Forces of contact are exerted by one body on another in contact while field forces act through a distance. The forces of educational change can be thought of in terms of *contact* and *field* forces. The following table identifies some of the forces in educational change under these categories.

Table 2: Types of forces

Contact forces	Field forces
In-service; teacher development	Vision
Curriculum	Mission
Administrative Policies	Political
Social - cultural - personal	Social - cultural - community
Competitive	Moral
Research	Phenomenological
	Soul

These forces are varied and many and complex in their immediate and future effect. When they combine they form a system. “Top-down”, hierarchical systems for example, have not proved to be effective (Fullan, 1991; Hargreaves, 1994; Hopkins, 1994; Middleton, 1996). Large scale educational reviews by governments such as the Wiltshire Report in Queensland (1994) are often used to mandate policy changes from above, however, their reform effects are limited to those that support the mission, vision and shared values of the “learning community” (Fullan, 1991; Hargreaves, 1994; Hopkins, 1994; Middleton, 1996). When the forces come from without of the community, there is a difference between the intent of imposed external forces of change and what is practiced in the classroom. Rarely is *adopted* change successful without undergoing *adaptation* to suit the cultural perspective of the school and the micro-political trade-offs necessary to survive (Hopkins, Ainscow & WEST, 1994). If the forces of change do not affect what the pupils do and their quality of learning, then all we have achieved is staff development (Hopkins et al, 1994).

Many state governments in Australia have interpreted the failure of such reforms as a fault of the system itself. After all, hierarchical bosses are supposed to boss. That they have been able to exert little influence over those working in schools has been interpreted as a failure on their part. Consequently, the systems and those that control them have been restructured (sometimes several times) in an attempt to give politicians more leverage over what happens in schools (Middleton & Hill, 1996, p153).

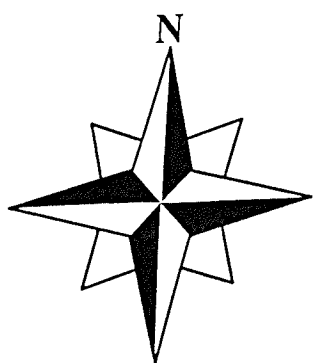
Change forces of this type might make it easier to instigate policies at a bureaucratic level, however unless there is a change to the cultural dynamics of the school learning community, resistance will occur and little movement result.

Not only can a system of forces acting on the cultural learning environment produce change, it does so in a certain direction. Ideally the movement of change is towards the shared vision, however not all movement will be positive in this sense. It would be a mistake to think of the forces of change as linear and predictable.

Imagine a man trying to sail a crude raft across the Indian Ocean to Australia. When the wind is coming from the west, he hoists his sail. When it is unfavourable and in the east, he furls it. He cannot plan his course, or predict when he will arrive, or exactly where, for these things are not in his control. What is in his control is the general direction of his movement. He will reach his destination...(Middleton, 1982 in Middleton & Hill, 1996, p155).

Movement in a certain direction gives change a vector quality. Since change takes place over a period of time, how fast the change occurs in this direction is its velocity. It is concerned with the *where and when* of change and involves anxiety and uncertainty and the increment and development of new skills. The guiding symbols here are the compass and the clock (Covey, Merrill & Merrill, 1994). Time management is how we go about organising the events to be done, their speed, and is represented by the clock. On the other hand, the direction is what we choose to do and is governed by the

compass. These are the things that guide us: our vision and mission and ensures that not only are we doing things right, but we are doing the right things (Bennis & Nanus, 1985). Productive velocity comes from the pressure and support within a collaborative framework (Hopkins et al, 1994) and this gives us an important insight into accountability.



Accountability is essential to the process of change (Arbuckle, 1993). This is not meant to be a narrow managerial process that promotes tight controls, predictability, and efficiency but to be based on dialogue and consultation and referenced to the school's

mission statement and vision for our curriculum. This form of accountability is to ensure that leadership moves beyond rhetoric to substantive activity that is directed towards a commonly agreed upon set of goals. That is, we are regularly checking the settings on our compass.

Experience tells us that applying the same force to two different contexts will produce different effects. The amount of movement (velocity) that is caused depends on the systems inertial mass (its technological, political and cultural perspectives) which gives rise to the concept of *momentum*.

2.4.2 Momentum

The measure of momentum in physics is one of the key concepts in understanding change. Whilst velocity tells us about the speed and direction of the resultant change, momentum tells us about the *effort* required to instigate change, or, for that matter, to stop it. In fact, Newton expressed his law of motion in terms of momentum as the amount of force required over a period of time to produce a quantity of motion. The effort required to bring about change in a certain time frame is dependent on the inertial mass of the system. It is a measure of the *difficulty* in changing the state of where things are at. The inertial mass depends on the amount and type of internal complex relationships within the system. These internal forces that tend to maintain a state of equilibrium, or a state of change, will now be explored.

Serving and empowering to bring about transformative change is a challenge, especially with a large staff consisting of many different subject, social and political groups that bring with them a history of “other” issues. As the size of the school increases, the complexity of these relationships compounds quickly. The theory of autopoiesis (Morgan, 1986) suggests that a process of ‘negative feedback’ can occur where a change in a certain direction will initiate a change in the opposite direction to maintain stability. Furthermore, there is what Arbuckle calls a fundamental cultural

anthropological insight: “culture has an anxiety-reducing purpose and it will naturally resist change simply because any change is anxiety-evoking ...”.

Secondary schools, because of their size and complexity, face additional compounding effects that have tended to maintain the status quo. Curriculum structures are based on specialised knowledge and processes within traditional subjects. The smooth operation of these subjects is managed by Heads of Academic Departments (HOADS) and Coordinators who work within accredited ‘work programs’ based on subject syllabuses. Once accredited, these work programs tend to produce a fairly rigid approach to the subject. The familiar timelines, lesson notes, assignments, set textbooks, and the ‘proven’ methods of teaching and assessing form a structure that can be difficult to change, especially when as many as eight classes might be doing the same work and comparability of assessment is required. Teachers might have five different classes to teach and can simplify their preparation by keeping to familiar ways of doing things.

Another danger to the process is what Arbuckle calls ‘groupthink’, where we might start agreeing with each other to avoid possible dissension in suggesting alternatives or through critical thinking. However, transforming change involves **the staff as a whole** in raising one another’s level of commitment and interaction. There must also be an acceptance of the need to make the necessary decisions and assume responsibility for their implementation. This is a critical point; that the staff contains effective leaders who feel empowered to learn and are able to overcome groupthink to empower others to learn. Once the system is in motion through creative forces, it takes on a momentum of its own. What is being done is what is important to the staff in achieving their mission and contributes to the overall mission of the college. It gives energy.

2.4.3 Energy

Energy is the capacity to do work. Biologically, we get energy and are able to do work by virtue of the food we eat and how our bodies process the food. However, this food

energy is only one small part of a more complex process so fundamental to the study of change. Energy makes known its existence only when it is converted from one form to another. The different metaphors of chemical, potential and kinetic energy will be used to explore the relationship of energy to educational energy. It will be seen that different forms of energy occur at the personal, structural and social / relational levels of organisation.

An overview is given in table 3 to help guide the discussion of literature using the metaphors of energy.

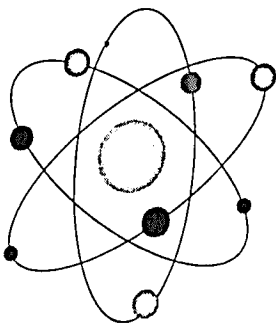
Table 3: Overview of the energy metaphors

Metaphor	Aspect of culture	Themes
Chemical energy	Structural	Organisational / political structures create bonds between groups of people with their own characteristics. The more stable the bonding, the harder to change.
Potential energy	Personal	"the fire within" comes from the overlap of spiritual, mental, physical and social capacities. It ignites vision, passion and spirit.
Kinetic energy	Social / relational	Gives rise to a spiritual culture based on a developing whole that has a future orientation, requires conscious effort and is located in the world as well as the individual. It explores the nature of destiny.

Firstly, let us examine the nature of chemical change. These changes are characterised by forming new substances with new properties and characteristics. In the process of changing the composition of the structure, energy is either released or absorbed. This is different to a *physical* change where the composition of the structure does not change and its original identity and characteristics remain the same. An example of structural bonds that give groups a certain stability against chemical changes and tend to reduce educational change to physical change is the subject department structure within secondary schools.

Specialist departments take on a life of their own (Hargreaves, 1994; Middleton & Hill, 1996). The culture of teachers within these departments creates particular patterns of behaviour due to centripetal forces identified by:

- low permeability of outside influences and of the knowledge and beliefs of other departments;
- strong personal identification as a specialist staff teaching the subject and its perceived way of learning, preparation and delivery. Subject traditions are usually reinforced through subject associations, syllabus requirements, BOSSSS (Board of Senior Secondary School Studies) review and accreditation procedures, teacher education courses, their own experiences at school and socialisation within the department. There has been a subtle shift from being a specialist at teaching to being a teacher of specialisation;
- the promotion structure within the subject, the status of it being a 'senior' or 'junior' subject, academic or vocational subject and how much resource allocation it is awarded in the budget, give it an identity and meaning within the school.



These subcultures take on a molecular character of their own and are major determinants of how teachers behave as a community (Hargreaves, 1994, p215). Continuing the chemical analogy of energy, we can think of the specialist teachers as atoms forming the molecular groupings of departments. Teachers share specialist knowledge (electrons) and procedures (bonds- ionic or covalent) to remain more stable than as individuals. Chemistry tells us energy is emitted in *forming* a more stable arrangement, but once formed, it has the characteristics of the molecule, not its atoms, and considerable force would be required to pull them apart. The *Kinetic Theory* helps explain the properties of departments (substances containing the same molecules) in terms of the forces

between molecules and the energy they possess. Departments that have experienced little genuine change become solidified. Those departments less established in their traditions are more fluid and the extreme occurs when a newly established subject becomes chaotic at times and therefore gaseous in its nature.

Not all subgroups have negative entropy to change. Curriculum planning groups, for example, can be very energy giving as this study has shown. The *organisational fluidity* of being able to recreate structures on a needs basis is a significant factor in enabling collaboration and shared learning in complex structures such as our College. While *moving mosaic* work structures (Hargreaves, 1994) can be flexible and responsive as in the 'fluid' above, they can also be manipulative and controlled by an inaccessible core of 'solid' thinking. Kinetic theory highlights the nature of the structures in our College and whether they will become "an avenue of empowerment or a conduit for blame" (Hargreaves, 1993). This point seems to be a critical factor for the success of change in secondary colleges. It requires further investigation.

To implement change successfully requires the development of shared meaning and relationships across the whole school (section 2.1.1 above). The problem with molecularisation is that its chemical nature will often not allow it to bond with the other substances in the mixture and results in an immiscible solution. This analogy to the subject department structures is a key point. It is drawing our attention to the restricted opportunities for teachers to learn from each other; use their collective capacities and experiences and reduces the openness, trust and support among teachers across departments (Hargreaves, 1994). Unless a chemical reaction takes place, we end up with a solution of different molecules each with their own properties but unable to form a new substance from the mixture. To get the desired substance we will need to reform the atoms into new molecules through a chemical change to the social structure, the shared commitment and the sense of a whole school learning community where the parts are seen to be contributing to the mission and goals of the College (Middleton & Hill, 1996). When internal boundaries are broken down and reformed into a cohesive

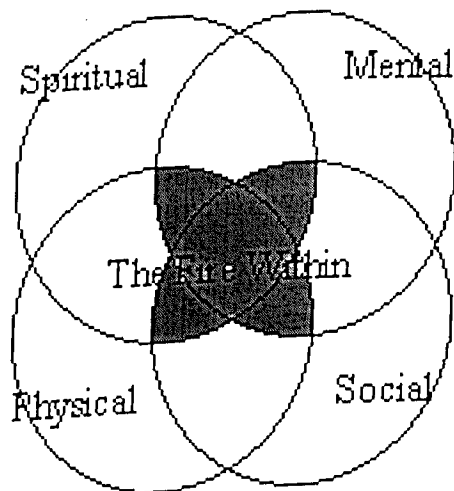
learning environment, energy is given out and used to form learning relationships with students and other like-minded school communities.

Another form of energy is *potential* energy. It is stored energy possessed by a body and can manifest itself as another type of energy, exert force and do work when realised. This internal energy is referred to by Covey, Merrill & Merrill (1994, p49) as “the fire within” and has its basis in four integrated capacities: physical, social, mental and spiritual. All four of these capacities are expressed in the need to live (physical), to love (social), to learn (mental), and to leave a legacy (spiritual). They are vitally important and if any of the four is not developed or integrated with the others, the inner energy is reduced. For example:

...we may see the physical need of earning a living as separate from our spiritual need to contribute to society. The work we choose to do may be monotonous, dull, and unfulfilling. It may even be counterproductive to society’s welfare. If we see the psychological need to learn and develop as separate from our social need to love and be loved, we may not seek to learn how to really, deeply love other human beings (Covey, Merrill & Merrill, 1994, p47).

However, when all four capacities overlap each other there is a powerful “synergy that ignites the fire within and gives vision, passion, and a spirit of adventure to life” (Covey, Merrill & Merrill, 1994, p48).

Figure 2: The fire within” (Covey, Merrill & Merrill, 1994, p48)



The fire within is soul activity (Sardello, 1995). It gives us the creative force to go into the unknown and consciously create the future with love. Soul as love is a conscious activity that expresses itself everywhere and in the individual. More particularly, teachers in a Catholic college do not teach in a vacuum of values but need to witness to the compassion of Jesus, share and extend the wisdoms of the spirit and have a passion for truth (Treston, 1992). This soul activity of energy and affection emanates from the very bricks and mortar of a school and is generated *from within* rather than from without.

Soul consciousness is referred to in John 2:25 when “Jesus ... never needed evidence about any man; he could tell what a man had in him”. John goes on to identify Nicodemus as a leader who had influence by implementing rules and his knowledge of the law, however he remained silent and safe when it came to the issues of his time. Nicodemus had lost his soul (Chittister, 1989). Contrast this to the next chapter of John when Jesus meets the Samaritan woman at the well:

Whoever drinks this water will get thirsty again; but anyone who drinks the water I shall give will never be thirsty again: the water I shall give will turn into a spring inside him, welling up to eternal life.

The implication for us as teachers is to go beyond the fragmented curriculum of subjects, syllabus rules and procedures. We need to include the whole person and the whole experience of living and be committed to developing the spirit and soul as well as the mind and the body (Dwyer, 1993).

Potential energy reveals two important ideas. Firstly, people have the capacity to care for and develop their own soul life, to reach beyond themselves to find meaning and purpose. Secondly, the world itself and indeed our schools have a soul. A critical aspect for this research is to understand the relationship between the individual soul and the soul of the College through unselfish love and service of all, and of God. To tap into this potential energy, Mica 6:8 summarises:

Table 4: The potential relationships for soul development (Mica 6:8).

“Walk humbly with your God”	Personal relationships
“Love tenderly”	Interpersonal relationships
“Act justly”	Structural relationships

When potential energy is realised, it can create an abundance of other energy. A common outcome is an increase in the kinetic energy of the person and of the system.

Kinetic energy is due to motion. So far the concepts of motion and change have been used rather loosely but it is now time to explore them more closely. The exploration of the meaning of change is not new, however, and has been the topic for philosophical thought since the earliest recorded writings of Aristotle who refers to other thinkers on this subject two hundred years before his time.

Parmenides (c. 540-480 B.C.) was one of a group of philosophers interested in the problem of change. These ‘Eleatics’ (from the Greek colony of Elea) thought that everything that existed in the world had always existed and was everlasting. Parmenides, however, took this further. He believed that the changes he perceived with his senses were not to be trusted and that reason was the only way to avoid perceptual illusion. Parmenides could be thought of as the first *rationalist*. He had unshakeable faith in human reason and believed this to be the source of our knowledge of the world (Gaarder, 1996).

Both Plato and Aristotle developed this rationalistic orientation to the world which is contained in the Realism and Idealism of today. They assign priority to essence over existence and that certain ideas and knowledge should be taught to everyone. In fact, Thomas Aquinas’ doctrine of Modern Realism came to be accepted as the articulation

of Catholic faith for about seven hundred years, until the Vatican II's *Declaration on Christian Education* opened thinking to other approaches (Buetow, 1988).

A contemporary of Parmenides, Heraclitus, thought that constant change, or *flow*, was in fact a characteristic of nature and he placed more faith in our perceptions. To Heraclitus, there was a 'universal reason' or God that guided everything and was the source of everything. Even at this early time there were completely different views of change:

Parmenides says:

- a) that nothing can change, and
- b) that our sensory perceptions must therefore be unreliable.

Heraclitus, on the other hand, says:

- a) that everything changes ('all things flow'), and
- b) that our sensory perceptions are reliable.

(Gaarder, 1996)

Notwithstanding, the *romantics* of the early part of the last century used the expressions "world soul" or "world spirit". Schelling believed in one absolute world spirit that consisted of both the human soul and physical reality. Another romantic, Herder, showed that each historical epoch had its own intrinsic value and each nation its own character or soul and this was revealed by the strong feeling of national identity at this time (Gaarder, 1996). The concept of world spirit was used by Hegel as the sum of human life, thought and culture, and he referred to the spirit's progress throughout history. He also believed that the world spirit becomes conscious of itself through the individual (subjective spirit); through family, society and state (objective spirit); and through art, religion and philosophy (absolute spirit).

The kinetic aspect of this movement of the spirit is given further support by "The Declaration on Christian Education". It refers to human nature as neither static nor fixed, but undergoing continual metamorphoses:

... and strive for the growth of the Mystical Body; moreover, that aware of their calling, they learn not only how to bear witness to the hope that is in them (cf. Peter 3 : 15) but also how to help in the Christian formation of the world that takes place when natural powers viewed in the full consideration of man redeemed by Christ contribute to the good of the whole society.

These basic ideas on the nature of our existence have been the focus for many other great thinkers over a long period of time. What can we discern from them that may help us understand the nature of the change we find ourselves in today? Is there a way to resolve the above conceptual differences in the way we perceive the world? The clue may lie in the new metaphors of physics. At the beginning of this century there was a similar breakdown in the classical concepts of physics. A new quantum theory to explain the non-classical observations was formulated in such a way that the classical concepts were incorporated as a special case of a more general coherent theory.

A metaphor that may lead to new insights is the hologram. Anaxagoras (500-428 B.C.) believed that everything can be divided into smaller parts, however even the smallest part contains fragments of all other things. Today, with the help of laser technology, we can produce holographic photographs such that any small part of the hologram is enough to resurrect the complete image. The more of the hologram we use, the sharper the resolution, however each segment of the photograph contains information about the whole.

This interesting feature has a parallel in Biology. Every cell of our bodies contains information in its genes on the way the rest of our body is constructed . Any cell could be used to clone your body. Our knowledge of genetics is therefore reinforcing a conceptualisation of an undivided whole being present in each part.

Peile (1994) uses the idea of a movie film to incorporate the notion of flux into a "Creative Paradigm". Each image or frame on the film is a hologram slightly different from the previous one but when shown in sequence they give us the feeling of movement. His movie of holograms is a way of understanding the concept of a *developing* whole. In this paradigm, the whole of nature is contained in each image of

reality to which we become conscious, but these images are continuously changing (Peile, 1994). This begs the question of course, is there a determined nature to these changes or are they random?

Classical science has tried for centuries to simplify nature, expose its underlying logic in the form of 'laws', and then use these laws as a means of control (Briggs, 1992). The technological advancement over the last century has shaped the way we think about our physical environment. There is a sense that if we can amass enough information about the forces in nature then the irregularities, unpredictability and variety can be explained. But the world around us and the way it changes is a complex phenomena:

An individual tree is the result of a vast, shifting set of unique circumstances, a kaleidoscope of influences such as gravity, magnetic fields, soil composition, wind, sun angles, insect hordes, human harvesting, and other trees. An individual wave as it pulsates toward shore is driven and sustained by a beehive of "dynamical" or continuously active forces, far too numerous to determine in detail (Briggs, 1992, p14).

Edward Lorenz in 1961 used vast amounts of data and the latest computer technology to try to model the weather. What he found however was that no matter how much information he fed into the computer on all types of related variables, he *could not* increase the accuracy of a long range weather forecast. He deduced that complex dynamical systems such as the weather are sensitive to even the smallest factor, which through a process of continuous feedback and interaction, becomes magnified and affects the whole. Natural systems are sensitive, nonlinear, open to influences by even minuscule events, do not operate in isolation and are unpredictable in detail (Briggs, 1992). However patterns of behaviour can be found.

Benoit Mandelbrot invented a new geometry called "fractal" geometry to explain the patterns in apparent chaos. An important insight to come out of his work is a holistic feedback process that causes self-similarity on many different scales and an infinite variety of forms:

Obviously, the weather at its different scales displays a self-similarity, a fractal structure. One way to explain this is to say that the weather is holistic, which means

that between its "parts" (its fronts, patches of rain or snow, high-pressure and low-pressure zones) are other "parts of parts," and "parts of parts of parts" (right down to the shimmers of heat rising from the sweating body of one of the hikers, or the chemical heat generated inside her straining muscle tissue). The result is that when all these "parts" and "parts of parts" start feeding into each other, they can generate images (such as weather maps) whose patterns have scaling detail. These patterns illustrate the fact that the system's whole movement takes place continuously at every scale (Briggs, 1992, p24).

The origin of this 'whole movement' that is reflected at 'every scale' is an interesting point. If we consider the metaphors described above, the holographic plate, the living cell and the fractal are determined by the 'reality' around us, but in a "creative paradigm" an implicit whole gives expression to the explicit environment (Peile, 1994).

We acknowledge the presence of an implicit whole and its sense of future every time we pray "The Lord's Prayer": "... your kingdom come, your will be done on earth as in heaven." and again in St Matthew's gospel, Jesus replies to the tempter: "Man does not live on bread alone but on every word that comes from the mouth of God." Paul in his letter to the Ephesians put it another way:

You must give up your old way of life, you must put aside your old self which gets corrupted by following illusory desires. Your mind must be renewed by a spiritual revolution. (Eph. 4:22-23)

Three qualities of the implicit whole seem to be coming through: a future orientation, it requires conscious effort to develop and it is located in this world and in individual life (Sardello, 1995).

The first of these qualities establishes the nature of our destiny. This is not to be confused with self-centredness that has a focus on what we want or what we think our soul wants. Our purpose is seldom what we think it might be as if we control who we are. In contrast to a "knowing", purpose requires a "doing" out of love and is revealed through our actions (Sardello, 1995). The transformation that occurs as a result of giving love to the community is the very essence of kinetic energy.

Organisations lack this kind of faith, faith that they can accomplish their purposes in various ways and that they do best when they focus on direction and vision, letting transient form emerge and disappear. We seem fixated on structures; and we build them strong and complex because they must, we believe, hold back the dark forces that are out to destroy us. It's a hostile world out there and organisations, or we who create them, survive only because we build craftily and smart - smart enough to defend ourselves from the natural forces. Streams have a different relationship with natural forces. With sparkling confidence they know that their intense longing for ocean will be fulfilled, that nature creates not only the call, but the answer (Wheatley, 1992:16 in Middleton & Hill, 1996, p155).

The second quality of requiring conscious effort refers to our ability to develop an inner sense of the quality of relationships and the inner quality of the world around us. It frees us from being trapped behind our unconscious forces from the past and the prejudiced views of the world formed from science, books, history or past experience. We need imagination to transform everyday consciousness into an opportunity for creating soul (Sardello, 1995). This quality avoids any deterministic interpretation, however it is consistent with the *creative paradigm* where the process of development of what is visible to us is a manifestation of the development of the invisible whole: "Both the surface and the inner movements of the stream are inseparable aspects of the flow of the whole stream." (Peile, 1994, p140). John's gospel explains this notion:

Make your home in me, as I make mine in you. As a branch cannot bear fruit all by itself, but must remain part of the vine, neither can you unless you remain in me. I am the vine, you are the branches. Whoever remains in me, with me in him, bears fruit in plenty; for cut off from me you can do nothing. (15: 4-6)

Our culture provides the soil and nourishment for our soul development. Seeing the world not as a modified projection of the past but as something we are responsible for is the third quality mentioned above. We come to know ourselves through community and love as if it were an orchestra. While we are in harmony with the world's soul, the music we make is a creating process however, if one note is off-key it affects the whole symphony (Sardello, 1995).



A spiritual culture is one that must be continually renewed as we deal with the

messiness of life but it is in this context that we find God. We are the notes of the explicit symphony that already exists implicitly in harmonic accompaniment. Although fragmentally defined, it is the harmonious chords we 'play' that are woven into the symphony of the whole. We do not have the temporal control as our composer does, but react to the melody of the time. The meaning of the implicit whole and the explicit part we play can only exist concurrently to ourselves when we focus on their relationship that forms the music, instead of concentrating on the notes themselves (Chang, 1956). When we are aware of the whole flow of the music, we become aware of what is not yet destined to come (Peile, 1994). Through the transparency of time we not only see our vision but also the changes occurring around us and the power of infinite growth.

2.4.4 Time

Time varies with the melody being lived. For teachers it is often seen as a major constraint to what they are able and expected to achieve at school. "Not enough time" is often the response to innovative change (Hargreaves, 1994).

The industrial and Newtonian concept of time is that it is absolute, a constant measured by the regular mechanical 'ticks' of a clock and labelled by a number. More recent experiments however have shown this concept to be a human construction. In the physical and natural sense, Einstein showed time to be a varying or relative quantity. Time will appear dilated when objects approach the speed of light. Time will also appear to run more slowly when it approaches a massive body. These experiments verify time to be a more personal concept, relative to the observer who is measuring it (Hawking, 1988).

As an analogy, these two 'relative' properties of time give a powerful understanding to the 'sociopolitical' nature of time (Hargreaves, 1994). In particular, they suggest that different perceptions of time will occur for those experiencing different degrees of interest, responsibility and administration, and between systems with differing 'internal masses' as described in section 2.4.2. The administrator may see the change they desire and consider for a number of reasons (including their reputation) as essential, but happening slowly. The teacher, on the other hand, is in a densely packed environment of classroom, staffroom, curriculum, student and teacher to teacher relationships as well as managing a personal life, feels that change is happening too fast. The conflict of perceptions occurs because: "... the further one is away from the classroom, from the densely packed centre of things, as it were, then the slower that time will seem to pass there." (Hargreaves, 1994, p107). This *phenomenological* dimension of time explains important differences in the perceived inner senses of the speed and need for certain educational change.

Our perception of time has unfortunately been prejudiced by the industrial constancy of time. When educational change is instigated externally there is usually a separation of means and ends (Hargreaves, 1994). The ends have been determined from reference to mission statements, purposes, values or politics. The means are often imbedded in timelines, efficient strategies, indicators, plans and review stages. This objective view of time has a major effect on the way we approach educational change in our schools.

Physics tells us that speed is the rate in which a certain distance is covered in a given time. This has implications for successful change. Phenomenologically we have identified that teachers have different capacities due to circumstance and ability, to handle the rate of change. The physical relationship tells us we need to either vary the amount (distance) or the time (or both), to alter the rate of change to suit the person. By fixing the process time for change, however, we are going to get a varying amount of the change that is possible for different people to achieve. Unfortunately, those

teachers who can not keep to the imposed timelines will be interpreted as failing to cope. For many teachers this will lead to frustration, cynicism and guilt (Hargreaves, 1994).

To get quality educational change it is necessary for all to collaboratively decide and take adequate time necessary to clarify what is most important; what gives meaning and what part does each have to play in its success. This “quadrant II” thinking (Covey et al, 1994) is what makes work meaningful.

2.4.5 Work

Work is done when a force produces a change in position. Work is merely a practical aspect of energy transformation. The work performed is measured by the product of the amount of movement and the force causing this movement.

If a change in position occurs at right angles to the applied force, that particular force does no work. Examples of this occur with centripetal forces where there is no overall displacement and hence no work done, however a lot of energy may be expended in the process. The following examples of in-service education provide explicit occurrences of the expenditure of energy without doing work:

- One-shot workshops are widespread but are ineffective;
- Topics are frequently selected by people other than those for whom the in-service is provided;
- Follow-up support for ideas and practices introduced during in-service programs occurs in only a very small minority of cases;
- Follow-up evaluation occurs infrequently;
- In-service programmes rarely address the individual needs and concerns of participants;

- The majority of programmes involve teachers from many different schools and/or school districts, but there is no recognition of the differential impact of positive and negative factors within the system to which they must return;
- There is a profound lack of any conceptual basis in the planning and implementation of in-service programmes that would ensure their effectiveness.

(Fullan, 1991, p.316)

To do work, educational change needs to be a process whereby students and teachers alter their ways of thinking and doing and ultimately effect a change in position (Hopkins, Ainscow & WEST, 1994). It is tempting to fragment, analyse and list what students, teachers and principals know and do to provide conditions for effective work, and how to “get them to know and do it”. However the central question in achieving productive work is “under what conditions will principal, student and teacher become serious, committed, sustained, lifelong, cooperative learners?” (Hopkins, Ainscow & WEST, 1994).

In addition, the physical and natural definition of work develops a strong link to *progress* where there is movement from a less satisfactory state to a more satisfactory one. This literature review is suggesting we need a new assessment of the concept of progress. It involves the discernment of the movement of the soul of the world and the individual. Progress replaces the modern heroes of pop-stars, Hollywood celebrities, talk-show hosts and comic characters by real, extraordinary people who by their imagination and creativity inspire us to a calling of our own (Hillman, 1996). There is a recognition in our heart for beauty and each person’s unique image that calls it to a destiny. For teachers, the realisation is that each child is a gifted child whose particular gifts show themselves in peculiar ways, sometimes causing pain and isolation. Work is done and progress made when this soul development becomes the primary focus for our teaching and learning.

2.4.6 Power

Power is the rate of doing work. The more powerful a machine, the more work it can do in a certain time. In more general terms, power is often interpreted as a measure of

strength or authority and associated with leadership ability. It could be seen as the amount of change one can cope with in a certain time.

We uphold the Mission Statement to act justly and with compassion especially towards those in need and nurture the values of the Gospel by basing our leadership on that of Jesus - "I am among you as one who serves" (Lk 22:26; Jn 13:1-15). This offers quite a challenge to our hierarchal model for administration of schools. This model of leadership could be inappropriate to our Mission Statement if we rely on the power of dominance and official position to achieve our goals.

Even though the Leadership Team is responsible for the implementation of the vision statements and development of the curriculum, to be effective we need to be community orientated and not act individually (Arbuckle, 1993). By exercising relational power others are empowered to contribute at a level that matches their talents. "think big but start small" is good advice based on the theory that a little success will breed further success. This will be more motivational and reassuring to teachers since changes in their attitudes and beliefs about teaching and learning usually follow rather than precede changes in teaching practice (Guskey, 1986, in Johnson, 1996).

2.4.7 Summary

The literature has been reviewed from the perspective of each of the natural concepts of force, momentum, energy, time, work and power. These six principles have identified several emerging themes.

Table 5: Summary of the concepts of change

Natural Concept	Main Principles	Themes
Force	Used to produce change. Measured by its effect and is related to velocity; the "where and when" of change.	Three types: transformative, centripetal and maintaining equilibrium. Use the "compass" to select those that move us towards the vision/mission. Use the "clock" to change at a rate that allows all to be supported collegially. Productive velocity comes from a collaborative framework of forces that are accountable to the mission statement.
Momentum	Measure of the difficulty and effort required in change	Transformative action that is inclusive and accepts individual differences as positive. Requires commitment and interaction
Energy	Capacity to change Meaning and purpose Fractal and creative	Chemical: restructuring releases energy. This institutional capacity for change must be supported by the personal capacity or potential. Potential: the "fire within" is soul activity and gives rise to the kinetic. Kinetic: The "developing whole" determines our compass bearing and is reflected at every scale - universe, world, system and individually. It requires conscious effort to develop.
Time	Phenomenological means and ends.	Non-absolute: An acceptable rate of change varies relative to each observer and their situation.
Work	Progress	Involves soul development and creativity.
Power	Strength and authority	Relational: based on community. Discernment of one another's gifts. Involves thinking imaginatively and creatively.

Leadership is focused on both the teacher's and student's own journeys, to free them from stereotypical ways of behaving and to allow them to develop their own unique and formative spirit. It ensures that both teachers and students learn to use their abilities to continually expand their capacity to create the pathway towards a collective vision. It also involves a recognition and commitment to the moral, ethical and value education that defines this pathway.

In essence, the key to the empowerment of staff is the soulful re-enchantment of teaching as a way of thinking and relating more imaginatively and creatively (Moore, 1992).

2.4.8 Research questions

The literature review has revealed several issues for a secondary school undergoing a process of planned continual educational change. The six elements used to explore the perceptions of change have identified the following research questions to focus the research.

The first research question comes from the element, force:

Question 1: What influences have produced a change in the way teachers do things at the teaching - learning interface?

The second research question comes from the element, Momentum:

Question 2: What factors made the changes difficult or easy to implement?

The third research question comes from the element, Energy:

Question 3: What contributed to or detracted from the personal motivation and energy of teachers to participate in the change process?

The fourth research question comes from the element, Time:

Question 4: How have teachers been able to manage the time available for change?

The fifth research question comes from the element, Work:

Question 5: What are some of the ways teachers have changed their thinking and doing with regards to teaching and learning?

The sixth research question comes from the element, Power:

Question 6: What is the nature of relationships that have influenced the teacher to change?

These six questions act as a holistic guide to the research design so that appropriate and valid instruments are used to explore teacher's perceptions in a culture of change.

3. Chapter Three: Design of the Research

3.1 Purpose of the Research

This case study examines the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. The study will extend the supporting literature in its understanding of how and why teachers change (or indeed not change) and how they perceive teaching and learning in this particular school setting.

3.2 Research Perspective

The above purpose of the research requires an exploration and description of the *human reality* of the situation. It seeks to understand why some educational changes are perceived by teachers as being more effective than others in improving the teaching - learning interface. Indeed, the purpose of the research requires an exploration of how teachers at a particular secondary college have been influenced or not by the ongoing educational change over the past five years.

An important aspect of the issues generated by the literature review is that personal action is determined by the meanings that things have for them (Fullan, 1991; Hillman, 1996; Hopkins, Ainscow & West, 1994; Moore, 1992; Sardello, 1996). Cultural life has also been identified as an important social dimension that gives content and form to the way things are done (Edwards, 1987; Fullan, 1991; Goleman, 1995; Hargreaves, 1994; Johnson, 1996; Morgan, 1986). A further dimension that seems critical to the formation of action is the processes and structures that exist (Arbuckle, 1993; Beck, 1992; Fullan, 1991; Hargreaves; Middleton & Hill, 1996; Spry & Sultmann, 1994).

These authors advocate an approach that is democratic, holistic, caring, consultative, negotiated, collaborative and is based on Gospel values.

The nature of the above factors as they exist within a particular secondary college and how they got that way, the research questions that have been revealed by the literature, lend themselves to an ethnographic study (Weisma, 1991; Wilson, 1979). Such research is characterised by:

- understanding social phenomena;
- employing narrative description;
- including participant observation;
- sensitivity to context;
- focus on individual variables and factors.

(Weisma, 1991:14)

The intention of this study is to use a wide variety of types of data collection procedures such as questionnaire, indepth interviews, participant observation, school documents and records to increase its credibility (Stainback & Stainback, 1984). A model that allows for analysis and interpretation as well as description of the situation in context is the Case Study (Stake, 1994).

3.2.1 Case study approach

Adopting the case study approach to this research allows the process "... to describe and analyse some entity in qualitative, complex, and comprehensive terms not infrequently as it unfolds over a period of time" (Wilson, 1979, p. 448). It is a way of portraying the experiences of the participants and the nature and variety of the learning milieu so that a prospective user can relate them to their own experience, circumstances, concerns and preferences (MacDonald and Walker, 1975). Case study offers an opportunistic response for the researcher and participants as they work with in a culture of change at this particular time in the development of the College (Stake, 1994). The choice of case study seems appropriate as this research involves recording the perceptions of

teachers working in the day to day reality of what is happening at the teaching - learning 'chalkface'.

The advantages of a case study approach are identified by McLaughlin (1996) to:

1. be strong in reality and thus provide a natural basis for generalisation. They are down-to-earth and readers can respond using ordinary processes of judgement;
2. allow generalisations because of their attention to the subtlety and complexity of the case;
3. recognise the complexity of social truths and therefore can represent the discrepancies between viewpoints of participants;
4. produce data which may form an archive of material for subsequent reinterpretation;
5. be a step to action. They begin in a world of action and contribute to it. Case studies may revitalise educational practice;
6. produce data which are more public accessible. The language is less esoteric, less dependent on specialised interpretation and capable of serving multiple audiences;
7. be more holistic. Case study endeavours to understand the whole person in relation to their environment.

Similar generic qualities are noted by Adler (1996), Stake (1994) and Wilson (1979), and would seem to justify the choice of case study as the means to understand and give deeper insight into the impact (or otherwise) of educational change on the teaching-learning interface. It does not impose or make assumptions prior to making observations which, in this research, are discovery orientated in the natural environment of teaching. Explanations will grow out of the data rather than starting with an hypothesis (Adler, 1996).

3.2.2 The quasi-historical approach to case study

Two important processes are identified by Bartlett (1987) that need consideration in this research: how to interpret evidence and how to construct narrative to represent the meaning given to the observations. The first step in the analysis for meaning is to establish case records for scrutiny which Stenhouse (1982) categorised as: Assumption

(‘good’ evidence because it is not self-conscious.), Testimony (its open and honest quality may help the researcher to detect unreliability), Witness reports (need to be substantiated), Hearsay reports (treat with caution), Accounts and Reflections.

Exploring only the spoken word is limited because it is a temporal event said to an audience situated in history (Bartlett, 1987). What remains after the spoken word passes away is its historical meaning, preserved in the case records. Hence, the second interpretive stage is to search for the meaning in patterns of events: “... the concealed structures or themes of meaning of events in the language of the text considered as a whole” (Bartlett, 1987).

The quasi-historical approach was implemented in this research by producing drafts of the case records for participants to read and react to. This form of verification process demonstrates a commitment to public access and democratisation of the research which reduces the risk of the researcher’s ideology distorting the data (Bartlett, 1987). Basically, the quasi-historical approach attempts to construct a meaningful interpretation of past events to inform the present.

3.3 Research site

The case study focussed on the staff of an independent college run by the Christian Brothers that has undergone and continues to undergo significant educational change. The present principal is a Christian Brother who over the last five years has promoted and encouraged change to improve the teaching and learning throughout the college.

Some change has occurred through necessity. The diminishing number of Christian Brothers allowed positions of authority to be filled by lay staff (ie, those not Christian Brothers). The Leadership Team consists of five lay staff and the Principal. The physical structures have been extended to cater for the demands of a larger student population of 1300 students. The resources have also expanded to meet the new

curriculum demands, such as a new Information Technology Centre and a new Art and Science Complex.

In 1993, five years ago, the College staff undertook a major review of their curriculum called "Creating the Future". Educational changes implemented since then are: a vertical pastoral care system, special needs for the gifted and talented as well as those students that need support, catering for greater numbers of International Students, unitisation for flexible pathways in years 9 & 10, the growth of Vocational Education, assessment and reporting processes, many new Board and Non-board subjects introduced, to name a few. At present, the staff are investigating learning styles and multiple intelligences and their impact on lesson structure. There is also work being done in the area of "The Graduate"- desired qualities of the student at the end of their schooling at the college, where and how are they fostered at the college, as well as development of a unified process for staff development and appraisal.

3.4 Research participants

As the research is about teacher perceptions, research participants were therefore limited to the academic (teaching) staff of the College. The staff consists of 110 teachers, six leadership members, 30 Heads of Departments and Subject Coordinators and eight House Deans. Not only was it important to involve a cross-section of staff positions, it was also important to have the involvement of a cross-section of experiences and ages. Those that have recently joined the staff had limited experience of the changes however others have had up to 25 years at the college. Also, it was important to include those that supported the curriculum changes and those participants who had opposed it or expressed little interest at the time.

3.5 Research methods

3.5.1 Questionnaire

A draft questionnaire was constructed and three “critical friends” asked to provide feedback as to the reliability in the way the questions were interpreted. This led to another draft with some differently worded and formatted questions before the final form was accepted (Appendix 7.1).

The purpose of the questionnaire was to gather information in each of the major areas identified in the literature review as being critical in effective ongoing educational change. It attempts to identify the thoughts of teachers as they work within this culture of change. It also attempts to understand how and why teachers change (or indeed not change) and the way they perceive teaching and learning. The four questions asked were:

1. **to reflect on the ways you have changed your teaching over the last 5 years:** 18 characteristics were listed and two 5-point scales for the ‘extent’ and the ‘importance’ of change for each characteristic given.
2. **to reflect on what has influenced you to change aspects of your teaching:** 11 influences were listed for a response on a 5-point ‘degree of influence’ scale.
3. **to reflect on the factors that contribute to the effort required in changing:** 12 factors were provided for a response on a 5-point scale measuring the degree of effort.
4. **to consider those factors that give you energy:** 9 factors were given for a response on a 5-point scale measuring the degree to which each factor ‘gives you energy’ for teaching.

Each of the questions asked the respondents to provide rankings to key characteristics or factors identified in the literature review as potentially significant. This was not an attempt to limit responses but to clarify teacher’s thinking on these issues and to offer open-ended comment at the end of the questionnaire. Another advantage of this fixed inventory format is that it is time efficient; an important criteria when asking busy teachers to give of their time. The issuing of the questionnaire was preceded by a

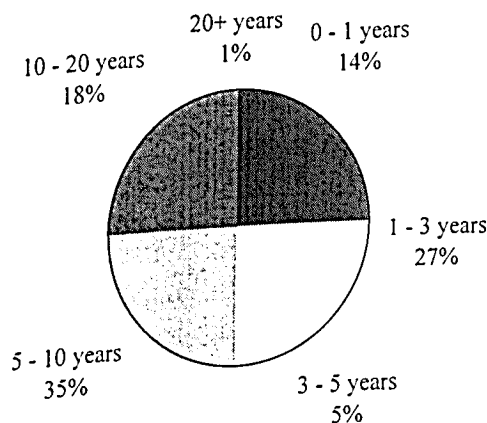
briefing session by the researcher outlining the purpose of the task, confidentiality and validation procedures.

A profile of the respondents to the questionnaire is given in the following tables and graphs:

Table 6: Length of teaching time at College

Number of Years	0 - 1 years	1 - 3 years	3 - 5 years	5 - 10 years	10 - 20 years	20+ years
Number of teachers	11	21	4	26	14	1

Figure 3: Length of teaching time at College

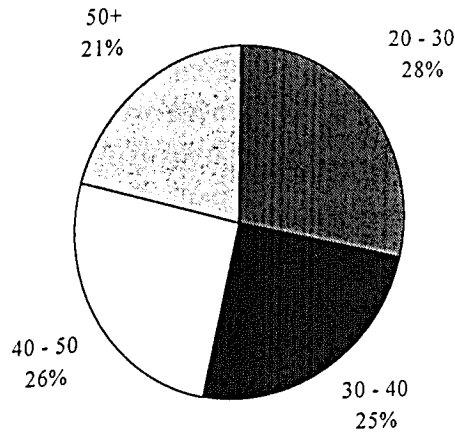


The eleven respondents who had been at the college one or less than one year were removed from the results to better represent those who have experienced a 'culture of change'. This left 66 respondents to the questionnaire.

Table 7: Number of teachers by age group

Age	20 - 30	30 - 40	40 - 50	50+
Number of teachers	22	19	20	16

Figure 4: Teachers by age group



The distribution of teachers by age indicate a good even contribution from each of the significant categories from the young teacher to the experienced and to the teacher near retirement.

Number of teachers with more than 20% of timetable in years 8 - 10	56	73%
Number of teachers with more than 20% of timetable in years 11 - 12	60	78%

With different educational changes occurring in the division of compulsory to post-compulsory education, the above profile indicates good representation from both areas. The following indicates a breakdown according to gender. This research however has not pursued issues on the basis of this division.

Number of female respondents with more than one (1) year at the College	15
Number of male respondents with more than one (1) year at the College	51

The issues that emerged from this questionnaire formed the basis for follow-up semistructured interviews.

3.5.2 Interviews

Eight participants were invited to follow-up on the issues identified from the questionnaire. They were selected for their ability to articulate a point of view and because they represented the diversity of staff opinions and socio-political groupings. Although these interviews were semistructured, they allowed free expression of ideas.

The issues to be explored were outlined with each respondent before interviewing began. The guide (Appendix 7.4) served as a check to make sure all relevant topics were covered whilst allowing participants the opportunity to articulate their own perspective rather than the prejudices of the researcher (Patton, 1990).

Information was added to these interviews from a further 26 interviews of the Heads of Departments and Coordinators. Although these were held as part of the PAR (Positions of Added Responsibility) reviews they served to cross-check and "... to minimise issues of legitimacy and credibility" (Patton, 1990, p. 286). Data were either substantiated or rejected.

Table 8: Profile of staff interviewed

Interviewee	Time at the College in years	Gender	Age	Position	Year 8/10 teaching	Year 11/12 teaching
1	11	m	39	**CLT	> 20%	0
2	15	f	35-40	Hse Dean	> 20%	> 20%
3	3	m	20-30	Teacher	> 20%	> 20%
4	18	m	40	Head of Science	> 20%	> 20%
5	8	m	30-35	Head of Junior English	> 20%	> 20%
6	3	m	25	Teacher	> 20%	> 20%
7	11	m	41	Teacher	0	> 20%
8	3	f	50	*VET Curriculum Coordinator	0	> 20%

** CLT: The College Leadership Team which consists of the Principal, Deputy, Dean of Pastoral Care, Dean of Studies, Dean of Residential Care and the Assistant to the Principal - Religious Education

* VET: Vocational Education and Training

3.5.3 Field notes

Field notes were taken as a record of what was heard and observed and the subjective impressions in interviews and in the relevant day-to-day conversations, anecdotes and staff interactions. These notes proved useful in validating data and focussing the study on what was the intended response of the participants.

3.5.4 Audio tape

Interviews were audio taped with the permission of the participant to enable accurate data collection. This was especially helpful in avoiding selective attention by the researcher that could have biased the results. It also allowed for the complete recording of data that came in rapid succession that would not be possible manually and still maintain accurate observation. Replays could also be used to cross-check data.

3.5.5 Participant observation

The researcher was a member of staff and had direct involvement with many of the educational changes that took place. This enabled the researcher to gain direct insight into the experiences, naturally and unobtrusively. The advantage of being a participant observer was to engage in free and open dialogue in moments of reflection with other members of staff. They may not have been so forthcoming with personal and private thoughts in other situations. Another point of significance is that the research process is seen as a shared one that acknowledges the values and purposes of both the researcher and the teachers in the study (Clandinin, 1986).

Some advantages of participant observation outlined by Bailey (1978) include:

1. it produces more data on non-verbal behaviour;
2. it is better able to discern and note ongoing behaviour as it occurs;
3. it can develop a more intimate and informal relationship with those being observed;
4. it is less reactive to events.

However, criticisms that can be encountered with participant observation include “subjective, biased, impressionistic, idiosyncratic and lacking in the precise quantifiable measures that are the hallmark of research and experimentation” (Cohen & Manion, 1994, p. 110).

3.6 Ethics

Approval was given for this research by the Australian Catholic University Research Projects Ethics Committee. Participants were informed of the purpose of the study as well as the methodology of the research at a briefing session held prior to research commencing. Approval was sought and given from the Principal and the Leadership team of the college and a consent form was signed. Throughout the research, the researcher was active in maintaining the ethical principles of impartiality, confidentiality, negotiation, collaboration and accountability. At all times, the researcher was sensitive to the demands placed on colleagues, mutual respect and academic rigour. Data were stored securely.

3.7 Trust worthiness, validity and reliability

3.7.1 Trustworthiness

As a fellow member of staff, rapport and trust was already established. This laid the foundation for open and honest dialogue that would ensure a rich participation with different value positions and outlooks given the opportunity to be expressed. Researcher bias is addressed by the process of confirming the meanings generated from analysis of data with the participants. Respect for this is based on a conviction that teachers not only have insights that are worth knowing about, but also have a right to be heard (Parlett, 1981). Accountability in the meaning interpretation is also assisted by the variety of data sources and collection sources (see table 9).

Table 9: Sources of data collection

Type of data source	Research questions	Collection techniques	Time (1997)
Questionnaire	1 - 6	Inventory format and open ended to identify issues. Confirmation and open discussion held at follow-up staff meetings	October
Interviews	1 - 6	conclusions confirmed by participants. Transcripts archived	October
Audiotaping	1 - 6	conclusions checked by a 'critical friend'	October
Participant observation	1 - 6	tabled documentation of the categorisation process	Feb - Nov
Pattern matching	1 - 6	checking and rechecking of data from more than one source	Oct - Nov
Segmenting	1 - 6	classifying data from different sources that contribute to a single idea	Oct - Nov
Field notes	1 - 6	Further checking and rechecking of data from other sources	Oct - Nov
Documents	1 - 6	Triangulation of data with: <ul style="list-style-type: none"> • Leadership Consultative Report's data • Workplace Learning Case Study • *PAR Reviews • Curriculum Review Reports 	Oct - Nov

*PAR: Position of Added Responsibility

3.7.2 Reliability

Reliability refers to the extent to which studies can be replicated in procedure and results (Weisma, 1991). Internal reliability is enhanced by the multiple data-collection procedures, along with triangulation. External reliability is a matter of the degree to which the contexts and methodology are similar. This case study is concerned with teacher perceptions which, although honestly given, may vary with a particular teacher from time to time, stress level and mood. Again, multiplicity of data collection over time and participant observation help in the promotion of understanding which is contextual rather than universal truth (Walker, 1983). In this regard, the study is a

detailed description of the researcher's understanding of the case as it existed for this particular time and place.

3.7.3 Validity

Whereas reliability refers to the consistency and stability of data, validity is concerned with its accuracy. Case studies have been criticised for distortions due to observer attachment to a certain theoretical stance, access to data, reader selectivity of the perspectives that enhance their personal beliefs, particularly when multiple meanings exist, and the incapacity to predictably generalise relevant outcomes from the particular (Stenhouse, 1980; Walker, 1983; Wilson, 1979).

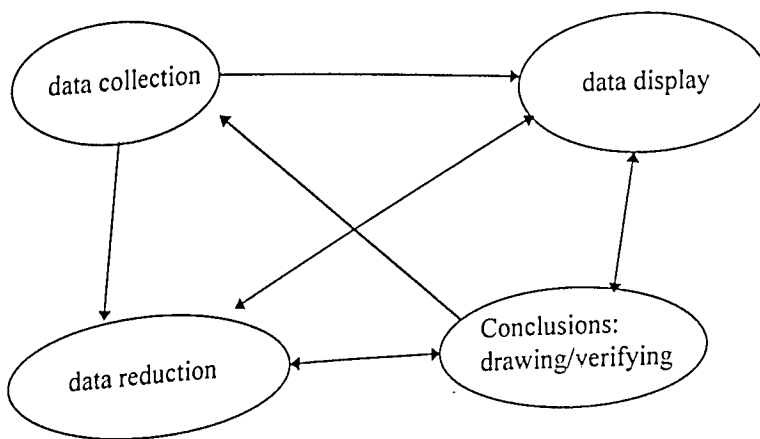
With this in mind, the researcher has endeavoured to be explicit and to clearly document the subtleties and complexity with enough information to allow the reader to generalise about the instance and the educational change process (Adler, 1996). It is hoped that this case study may not only uncover embedded social truths about this college but also give understanding to these truths in the broader context of educational change.

To ensure greater validity, the researcher employed the use of triangulation by using multiple data sources, researchers and methods (Adler, 1996). Multiple data sources include the variety of participants that were identified by the 77 responses to the questionnaire and wide variety in experience and belief of those interviewed in both formal and informal settings. Researcher triangulation was provided by a 'critical friend' who provided feedback to protect against subjective bias and to 'sit-in' during interviews to ensure all views of the interviewee were acknowledged and recorded. Methodological triangulation involved the use of multiple data collecting procedures as covered in table 9 above. By the use of triangulation in these three forms, the researcher was able to identify themes and patterns that emerged and assess their validity.

3.8 Analysis of data

The presentation of data from the sources in table 9 are integrated but presented under the thematic issues identified by the literature review. This grounded theory approach involves inductive and deductive analyses with data collection throughout the study (Huberman & Miles, 1994).

Figure 5: Components of data analysis (Huberman & Miles, 1994)



The generation of meaning followed a thorough literature review to identify patterns and themes and to form an initial conceptual framework for educational change. With this as the focus, the case study proceeded through stages of description of data, the context and events to which it refers, classifying the data and seeing how these interconnect to form a reconceptualization of the perceptions of teachers in this culture of change (Dey, 1993).

The processes involved linking the data to the analytic text by summarising, identifying themes/patterns/clusters, discovering relationships, developing explanations. The converse of the text pointing to further data display was evident in it making sense, suggesting comparisons, requiring elaboration or integration and suggesting re-analysis (Huberman & Miles, 1994).

The next section on results and discussion will draw on these links to tell the story of this case study. This process has led to a more informed understanding of educational change by the researcher.

4. Chapter Four: Results and Discussion

4.1 Purpose of the Research

This case study examines the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. The study will extend the supporting literature in its understanding of how and why teachers change (or indeed not change) and how they perceive teaching and learning in this particular school setting.

4.2 Design of the research

As outlined in chapter 3, the presentation of data is thematic with the various sources (see table 9) of data contributing to the overall discussion on educational change. With this in mind, it is not the intention of this study to conclude with a definitive list of effective change strategies that would ensure success if this formula was followed. The situation is more complex than this oversimplification would have us believe. The outcome of this case study is open ended rather than closed. The purpose is to identify generative conclusions that might be useful in both this situation and in other contexts of educational change.

4.3 Analysis of data

4.3.1 The extent that teachers have changed in the last five years.

This section explores the degree of progress in educational change as defined by the concept of work in the literature review. The staff were asked to reflect on the ways they have changed their teaching over the last five years. The scale for responses was:

A	B
<p>This scale indicates the extent of change over the last five years:</p> <ul style="list-style-type: none"> ① much less ② somewhat less ③ no change ④ somewhat more ⑤ much more 	<p>This scale indicates the importance you feel that this characteristic has in creating a more effective school:</p> <ul style="list-style-type: none"> ① not at all important ② not very important ③ fairly important ④ important ⑤ crucial

The results from the 66 respondents were as follows:

Table 10: Questionnaire results on extent of change

	Characteristic	Extent of change	Importance of characteristic
	1	3.52	4.11
Content	2	3.92	4.30
process	3	3.83	4.36
skills	4	4.20	4.17
assessment-variety	5	3.98	4.17
choice of L. pathways	6	3.82	4.06
students accept. responsibility	7	3.91	4.25
planning instruction	8	4.12	4.02
technology	9	4.05	4.26
variety of L. strategies	10	3.83	4.11
extension & enrich. opportunities.	11	3.92	4.32
pastoral-student	12	3.37	4.32
pastoral-teacher	13	3.58	4.29
expectations-academic	14	3.79	4.63
expectations-potential	15	3.55	4.14
consultation in decisions	16	3.62	4.40
passion for teaching	17	3.61	4.46
motivation for teaching	18	3.47	4.08
working to a shared vision			

Figure 6: Questionnaire results on extent of change

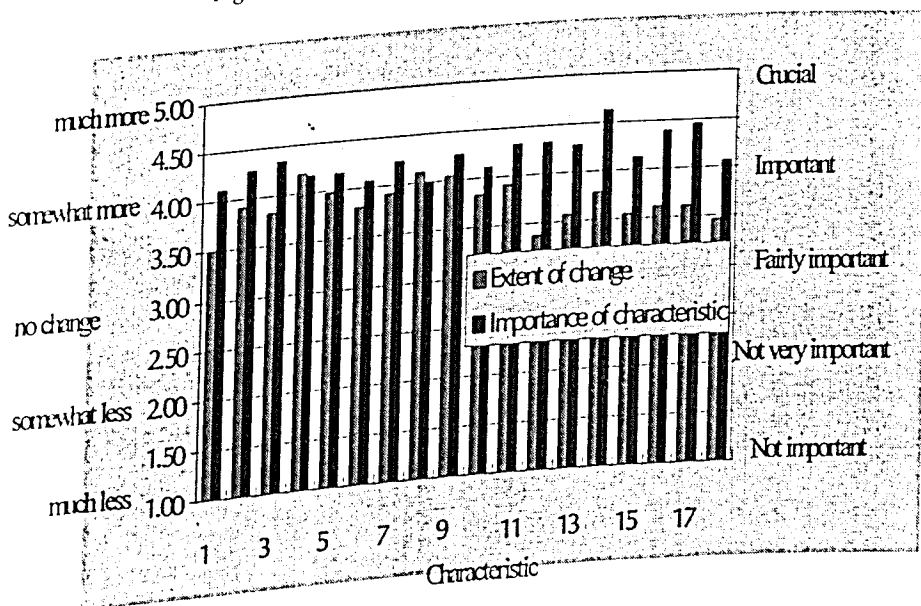


Table 11: Summary of the findings from the questionnaire.

<p>All 18 characteristics on the inventory have changed somewhat with the greatest change occurring in:</p> <ul style="list-style-type: none">• variety in assessment• use of technology• variety of learning strategies• choice of appropriate learning pathways• awareness of student needs - pastoral• learning of processes (especially teachers at the college 1 - 5 years)• planning instruction (especially teachers at the college 10+ years) <p>The least change occurring in</p> <ul style="list-style-type: none">• awareness of teachers needs• working towards a shared vision - the mission statement <p>All characteristics were important to teachers with the most important being:</p> <ul style="list-style-type: none">• the expectation for students to achieve to their potential• motivation for teaching• passion for teaching

The extent of educational change has been significant over the last five years. Prior to this period, interviewee 1 felt that the staff were content with the job they were doing and things seemed to be in relatively good order. However, there was a growing belief among many staff members that changes in curriculum content, processes and organisation would improve learning for students (Vision 2000 report). As the literature review has identified (section 2.3.1), there is a critical difference between desire and capacity. Teachers seemed willing to participate in group discussions and committees and planning meetings, however it was quite a different matter to produce substantive activity that was directed towards the commonly agreed upon "Vision 2000" goals. To achieve this step, it was necessary for strong leadership to give direction, using the "compass" (Mission statement) during the times of organisational fluidity.

It was also important for the leadership to support both those who saw the changes favourably and those who did not, with a caring persistence. Help was needed to overcome the inherent autopoiesis, anxiety, fear of loss of competence, and the fear of

losing the security of familiar ways of doing things. In addition, it was important not to devalue what had gone on in the past but to express the changes as moving forward to better ways and opportunities for achieving better teaching and learning. This was highlighted by interviewees 1, 2 & 4 who saw the opportunity for a different way of doing things even though the college review of 1993 was administration driven. It is significant that without the total structural and organisational change that occurred, it was felt that substantive renewal would have been minimal (Principal). This gave more control of the agenda to those who had the vision for something better. Interestingly, all of the changes that have occurred have been judged by most staff as being important to them (Questionnaire). A common reaction is reflected in the following comment by interviewee 1: "I didn't see the vision at first ... jumped on the bandwagon to give it a go ... Now that it has happened it has been worthwhile".

These planned purposive changes were seen as an attempt to improve the existing situation (Interviewees 1,3,4,6 and 8). The educational changes are perceived to be extensive, in important areas, and real. This is exemplified by the degree of new resources and technologies, different teaching strategies and some alteration in beliefs (Questionnaire & PAR reviews). Each of these are seen in the literature review as significant first order changes that affect the quality of what is being done educationally.

Typical of many responses to what has changed at the chalk-face is "we have replaced the 'jug - mug' transmissive model with a contextual, student-centred, constructivism. Students challenge and extend ideas" (Interviewee 4). There is an overall agreement that students have more control over their learning as illustrated by this comment by interviewee 5:

We are letting the kids in on the secrets that only the staff knew in the past. They can see more of the reason and thoughts behind what they do rather than doing it without question. There is an old saying 'knowledge is power' and in this respect we are empowering students.

Another insight is the feeling that we have become less teaching orientated and more focused on learning. Interviewee 8 made the following observation:

In the past we felt teaching was covering all of the objectives for a lesson ... and if the student didn't learn, we blamed the student as being lazy, stupid, not suited to the subject or obviously not doing their homework. Now there is more checking that learning is taking place and more responsibility taken for learning that is ongoing everyday and not just checking at the end of term exam time ... we are developing instruments to show that the learning has taken place, and if not, how we can offer opportunities to address that in a new context and design new experiences. We are faced with students at all stages of learning and have needed to adjust our teaching styles. We have articulated and communicated better what it is you have to do to be competent.

It was also suggested that this has improved student behaviour and their self-esteem with a positive change in how others perceive student differences (Interviewees 4,5,6 & 8). One teacher, (interviewee 7), felt however that students were more immature and some felt "lost" because they were not going to achieve as well as they wanted to. He felt there is a need for a more consistent approach to student management issues and for more resources to be spent in advising students on the implications of their choices.

Of concern is the low but still positive rating (3.37) given to teacher needs - pastoral. This could mean that teacher needs were already being met and there was no need for large change or it could mean there was an unrequited need. The separation of life - needs and system-needs could lead to a shrinking of the personal needs of the teachers whose purpose and conviction are required to maintain change. This is recognised by the high importance rating, 4.32, and required further investigation through interviews.

It was felt by interviewee 7 that the staff were challenged but cared for and supported to go beyond their comfort zone. Interviewees 2 and 8 mentioned that the staff responded by choice to perceived needs and acted as a learning community that valued differences in others. However, interviewee 4 recognised the need for more individualised professional development and reflection time. Skills needed to be developed in conflict resolution to allow the free expression of ideas. There was some sense that on

occasions a confusion of dealing with personalities as opposed to issues had occurred (Interviewee 7). It was noted, however, that most staff had generous teaching allocations and extra time had been allocated for unit development during this stage of curriculum change. In general, staff felt well supported, treated compassionately, and were enjoying working more collaboratively (interviewees 1,2,3,5,6 & 7).

The recent Leadership Consultation Report (1997), that was the result of a wide ranging consultation of the College family (teachers, students, support staff, parents and associated groups), summarises this section on the extent of change:

The College is a significant leader in the area of curriculum development. Respondents also acclaim the College's efforts in providing an expansive variety of academic pathways for students... The inclusivity of the curriculum is also highly commendable... The overall academic climate in the College is perceived to be very positive and challenging and staff are very professional and generous in their efforts.

In addition, the changes are seen to have changed the culture of the school. These second-order changes confirm the findings of the literature review that for educational change to be effective there needs to be a corresponding change to the shared vision and the creation of a productive work culture. In recognition of this, staff have perceived the need for the renewal of their shared vision (Consultation report, interviewees 3 & 7 and questionnaire importance rating 4.08).

While the next section will support the importance for renewal of our shared vision, the researcher also notes the danger that these changes might be seen as an event we had to have rather than an ongoing process of renewal. Contentment and complacency will be the signals for such loss in momentum. Our greatest strength will be the ongoing development of our mission through planned and purposeful staff reflection. It will require the clear articulation of how we put into practice and model this mission and a recognition to be individually accountable for how we contribute to this vision. The next section will discuss these findings for influencing ongoing renewal.

4.3.2 The factors that have been influential in teachers changing:

This section examines the balance between change and stability. It identifies the forces that change the momentum of the status quo. The staff were asked to reflect on what has influenced changes to aspects of their teaching over the last five years. The scale for responses was:

C	
This scale indicates the degree of influence	
①	no influence
②	little influence
③	fair amount of influence
④	influential
⑤	crucial

Table 12: Questionnaire results on influence

	Influence factor	degree 1-5
1	In-service	3.06
2	curriculum restructure	3.58
3	admin. polices	2.94
4	personal philosophy	4.02
5	competitive	3.05
6	research	3.22
7	Mission Statement	2.82
8	Political polices	2.34
9	community	2.63
10	moral perspective	3.63
11	soul forces	3.35

Figure 7 : Questionnaire results on influence factors

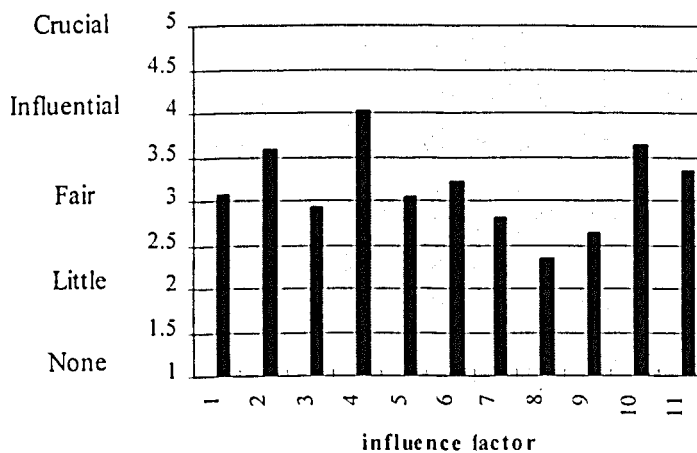


Table 13: Summary of the findings from the questionnaire

<p>Most influential were:</p> <ul style="list-style-type: none">• personal philosophy• curriculum restructure• moral perspective• soul forces• inservice for teachers at the college 3 - 5 years• competitive to be the best <p>The least influential were:</p> <ul style="list-style-type: none">• political policies• community pressures

All forms of data received have confirmed the research results described in the literature review that effective educational change emanates from within rather than from imposed “laws from above”. This is reflected in the questionnaire data where the greatest influential factor (4.02) was “personal philosophy” which was based on a “moral perspective” (3.63). At the other end of the influence scale was “political polices” (2.3). In other words, change is not mandated. This insight emphasises the importance of allowing staff to share their philosophies and values in a safe and non-threatening way. Personal involvement and consultation with a staff of 110 can be quite a challenge and requires organisational structures to allow for small group discussions to feed into and contribute to the bigger meetings.

The influential factors of educational change identified in table 13 are also indicating a concern for more than the intellectual. Results indicate teachers are affected by their heart and soul. Change priorities need to include development of the emotional intelligence (Goleman, 1996). Deepening the caring ethic, puts values into what is learnt and gives purpose to education outside of opportunistic or bureaucratically controlled curricular.

Curriculum restructure was given a high influence rating (3.58). The initial structural and organisational changes provided the possibility for action to be taken. This by no means ensured teaching and learning changes happened at the chalk-face. It was only when change was perceived by the teachers “to be relevant”, “of benefit”, “to make a positive difference that outweighed the investment in time and effort”, and “where there is a need” that effective change occurred. More than once it was expressed as “I am anxious for my own child to receive the best learning and I transfer that to what other parents must also desire. I ask what can we best do to help all students to progress and to remedy common blocks to their learning”.

The data (Appendix 7.2.5) also indicates those who had been at the college 1-2 years and also relatively new to teaching were fitting in with the established ways. Even though they may be considered “not experienced enough in the trade” to be agents of change and fairly conservative in their thinking, the data shows they are influenced mostly by their personal philosophy. Staff politics, however, had its greatest effect on this group. Some new staff can become identified with particular staffroom politics or cliques. The danger (as outlined in the literature review) is the process of “groupthink” where they identify with a particular political view or group for peer acceptance. They may avoid possible dissension or critical thinking so as not to be isolated in the staffroom.

A new arrival to a school will often follow the belief of observing and developing relationships in the first year before trying to implement changes in the second year. This upholds the wisdom of listening to and respecting the present work that has been occurring, however, this could unwittingly add to the inertial mass of the system because of the following reasons.

When a person first arrives, there can be a pseudo-communal effect where most people, perhaps through good manners, etiquette and a process of seeing what you are like, will be nice, compliant, and if the person is in a position of added responsibility, they will

be optimistic that a “new broom” might sweep away their problems. The rule seems to be not to do or say anything that will offend; to give a false sense of a smooth running community - as if they all have the same Christian beliefs and interpretation of schooling. A characteristic seems to be to talk in generalities and to avoid conflict by keeping their feelings to themselves. People even nod in public agreement, however, in their private, well established cliques where personal politics hold sway, they can be rather scathing.

There is no risk of challenge or deeper analysis or positive transformative action required of the individual in this scenario. To give tacit approval to the laissez-faire approach of cliques under the guise of observing the status quo for a year seems to be ignoring the opportunity for vision building and collaborative and participative decision making. This is not to suggest that one does not observe and respect the ways of the past but it does establish a philosophy of critique and looking for ways of improving what we do in a communal sense. It means acting in an inclusive manner, accepting individual differences as a strength and respecting everyone’s contribution. Rarely does it take a year to become established or to discern social relationships or to know the way things are done.

In contrast, the teachers who had been 3-5 years at the college were employed through this time of significant change and have been influenced strongly by their personal philosophy (and probably employed because of it) and also the opportunity offered by the curriculum restructure and by the research. “It is relevant that we have had the ability to reflect, adapt and be proactive in influencing external policy” (Interviewee 8). They have also had the time to establish “like minded” peer groups. This same teacher (Interviewee 8) put it this way:

Historically, with the increase in student numbers, student needs have changed. The school made an internal decision based on its ethos and values to take on changes to meet student needs. It was consultative and listened to opinions of others and made a real response to real people with real needs - to not package students into university or nothing. We are part of a community and not isolated from its needs.

Our mission is to value all learning and all pathways to provide a learning environment for everyone to learn.

The older and more established group, 10+ years at the college, are still mainly influenced by their personal philosophy and somewhat by a moral perspective and soul forces (the spiritual life force), although these are more entrenched than other groups with less time at the college. In one case, for an older, experienced and successful teacher, it was expressed that he had some time ago learnt all the tricks of the trade and knew what was necessary for the good learning of his subject. All these changes would not affect the way he went about the daily business of teaching.

On balance, the case study suggests a clear message that to influence change, the most important factor is to realign personal philosophies with a well articulated vision for improvement that involves ownership and empowerment of staff. One questionnaire summed it up thus:

The change has been facilitated by the staff who are strongly committed to the Edmund Rice dream and vision to be proactive and not be suppressed by those who have lost that energy for lifelong learning and by seeing teaching as a vocation not just a job. The forces to put students at the centre of the school and to live the mission has been truly remarkable. Those who have not been very effective and contributed little, have come to a better appreciation of what it means to be a teacher in an Edmund Rice school in the 1990s.

(Note: The 'Edmund Rice dream and vision' has been summed up in the Appendix 7.5 under the eight essentials of Christian Brother Education.)

Influences have caused a variety of levels of commitment by staff to the change process. Teachers also experience degrees of difficulty and support when it comes to implementation of these changes. The next section examines those factors that affect the ease of change.

4.3.3 Those characteristics that made the changes for teachers easier:

Momentum, as explored in the literature review, is the property of an organisation that tends to keep it going in the same direction. It determines the level of commitment and

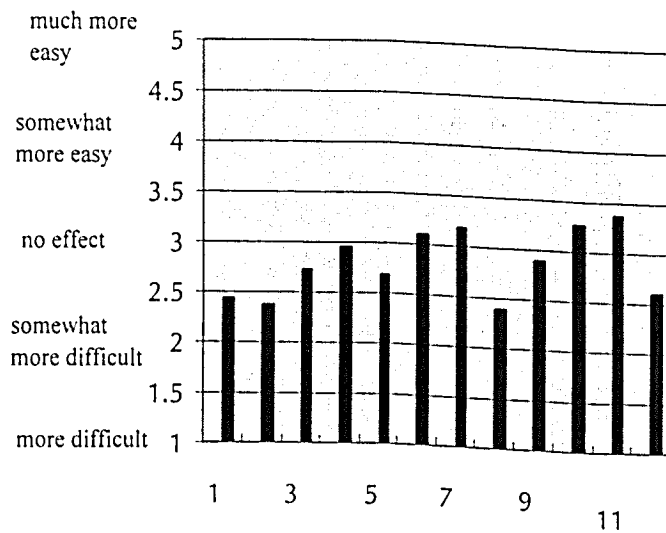
interaction that is required for transformative action to be effective. The staff were asked to reflect on what has contributed to the effort required in changing aspects of their teaching over the last five years. The scale for responses was:

D	
This scale indicates the effect of the characteristic on the effort required to change	
①	Made the change process more difficult
②	Made the change process somewhat more difficult
③	Had no effect
④	Made the change process somewhat more easy
⑤	Made the change process much more easy

Table 14: Questionnaire results for factors that affect the ease of change

	Characteristic	Effort
1	Size of school	2.42
2	Cliques	2.40
3	Subject groupings	2.78
4	Syllabus regulations	3.02
5	*BOSSSS regulations	2.92
6	**CLT	3.25
7	Curriculum structures	3.26
8	Staff politics	2.43
9	Time available	3.08
10	Holiday time	3.50
11	Student-free days	3.53
12	Speed of change	2.60

Figure 8: Questionnaire results for those factors that influence effort



* BOSSSS: The Queensland Board of Senior Secondary School Studies

** CLT: The College Leadership Team which consists of the Principal, Deputy, Dean of Pastoral Care, Dean of Studies, Dean of Residential Care and the Assistant to the Principal - Religious Education

Table 15: Summary of findings from the questionnaire

<p>Those characteristics that made the change easier were:</p> <ul style="list-style-type: none"> • student-free days • holiday time • school administration - CLT (College Leadership Team) • curriculum structures <p>Those characteristics that made the change more difficult were:</p> <ul style="list-style-type: none"> • size of school • cliques • staff politics

“Some changes have been difficult decisions...the college is like a big ship with a momentum of its own. Very difficult to turn around” said interviewee 1. Certainly the research data identified the areas of cliques and staff politics, size of school and, to some extent, the speed of change as factors that cause difficulty. The literature review identified the first two of these factors as increasing the inertial mass of the system and hence increasing the resistance to change. The third factor has to do with velocity

(speed in a certain direction) and when acting on the mass of the system it causes momentum - the effort required to change a system from its present state.

Data on the size of school included references to the number of teaching staff (110) and the number of students (1360). It was felt that as the size of staff increased, so did the myriad of complex relationships within groups and between people (Interviewee 1). Large staff meetings became unlikely venues for wholesome dialogue and were more for organisation and information sharing. Smaller house groupings or subject groupings were often formed to discuss issues which then reported back to the whole group. Interviewee 7 expressed the view that on occasions he felt his group was not fairly represented. Although the ideal situation would be for all 110 staff to share a common commitment and be like-minded about achieving a common vision for schooling, however, in reality, consensus is unlikely to occur.

To require consensus before implementing change is not only very difficult, but it can also be an unintended negative influence. Consensus encourages contrived collegiality (Hargreaves, 1994), where non-controversial, and usually not important issues, gain significance and priority because of their ability to gain universal acceptance. More important issues might well be sidelined because of a lack of consensus as they usually evoke strong personal and group identification. There is more reluctance to compromise on these issues.

Rather than strive for consensus, some groups of like-minded staff were very productive in sharing ideas and were a source of strength for those involved. These people did not see teaching as a solitary practice but were prepared to learn with and from their colleagues by participating in informal and formal debate, openness and professional discussion on critical issues that were compelling for them. Their efforts were not preoccupied by skills and standards so much as building relationships with students, creating a secure, inclusive learning environment and giving purpose and enjoyment to learning (interviewees 1, 2, 4, 5, 6 & 8; PAR reviews; Leadership

Consultative Report). However, not all collegiality is positive. The following will give instances of unproductive collegiality.

Groups of disaffected staff seemed to form cliques from either a common belief or moral stance, for social reasons or for political strength as an attempt to maintain the status quo. One particular incident that resulted in a court case created the centralising focus for one staffroom. Whatever was done by the Leadership Team from this point on was met with suspicion by a group within this room (Interviewee 4). Others felt that they had seen different people with ideas come and go over time, however life had gone on much the same (Interviewee 3 & 5). It was felt that some teachers were negative because they had not achieved what they wanted to and it was their way of pulling everything back to their level. Other reasons for avoidance mentioned were anti-authority because of unresolved conflict, fear of insecurity, attitudinal and human nature to say you can not do it and a fear of being found not as competent as they would like to be or of not keeping up with the latest and being found ignorant. For example, some staff felt guilty because they were not being supported within their department to get professional development and grow. They saw other teachers were able to access conferences, inservice opportunities and discussion groups, but they didn't say anything out of respect for those getting the opportunities. Instead, these teachers focused on other issues and felt more and more isolated and alienated from other staff (Interviewee 8 referring to the data on our staff from Velde, C., Cooper, T., Harrington, S. & Mailler, E., 1997).

Many made the distinction between negativism, which was seen as corrosive, and criticism born out of experience which contributed to a constructive dialogue and acted as a check on change for changes sake (Interviewees 1, 5, 6 & 7). It was also mentioned by (Interviewee 7) that "cliques" were a means of 'blowing off hot air that was soon forgotten about'. However, it was noticed that this could be wrongly interpreted by someone outside the clique as group negativity when in fact it was colleagues supporting someone feeling down for a culmination of other reasons.

Problems were created when confrontation of the individual was avoided or not done at the lowest level or too late and in the wrong way (Interviewee 7). When this occurred, the issue tended to escalate, and the eventual solution could be out of proportion to the problem. Generalisations, that can result from not targeting the individuals, antagonised other staff. It was felt that this was a problem when someone (usually a parent or student) had raised an issue to the Leadership Team but insisted on confidentiality. This became a case of “dammed if you do and dammed if you don’t”. If you do raise the issue with the individual, it is often difficult to be specific without loss of confidentiality.

Overriding all of this, however, is a sense of belonging to a college community and a sense of doing things for the greater good. As change became more accepted with obvious benefits to the students, more of these staff were conciliatory and pragmatic. There has been an acknowledgment by interviewees 1, 2, 4, 6 and 8 that the educational changes have been worthwhile and they would not go back to the previous ways.

The frustration of undeveloped potential and lost opportunity to make a difference was expressed by interviewee 8 thus:

The sad part for me is that within one school there is so much intelligence in the one setting and we never harness it. Everyone who is here is well educated, intelligent and yet we don’t harness that - and I don’t know why. You could go to a workshop with five people of limited education who could be creative, exciting lateral thinkers and intelligent. What do we do to prevent 90 people from being creative?

This would be an interesting issue to pursue in future research. Is this to do with the college or the individual? Would this be the case in any institution in which these people worked?

4.3.4 Factors that gave staff energy:

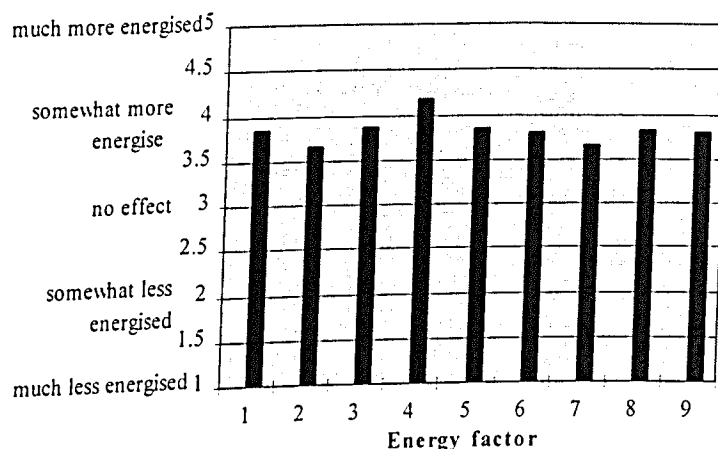
The literature review identified three types of energy sources for investigating an organisations capacity to change. They were chemical, referred to as structural energy; potential, the personal fire-within; and kinetic, due to the developing whole reflected at a system and individual level. The staff were asked to reflect on what factors gave them energy for changes to aspects of their teaching over the last five years. The scale for responses was:

E	
This scale indicates the degree to which the factor gives you energy for teaching	
①	Feel much less energised
②	Feel somewhat less energised
③	No effect
④	Feel somewhat more energised
⑤	Feel much more energised

Table 16: Questionnaire results for energy factors

	Energy factor	Energy
1	New role	3.84
2	Possibilities	3.67
3	Study	3.86
4	Like-minded' collaboration	4.18
5	Stable & predictable environment	3.85
6	Shared commitment	3.80
7	Co-curriculum	3.67
8	Spiritual	3.83
9	Personal 'calling'	3.80

Figure 9: Questionnaire results for energy factors



All nine factors were high with the greatest being “like-minded” collaboration (a form of chemical energy where the structure creates bonds between groups of people). For some teachers, their energy came from the challenge of opportunities without which they would stagnate and look for a transfer. They acknowledged the need to work collaboratively and interact with like-minded staff. This was seen as a positive relationship even if there were differences of opinions. There was trust in each other to try, to review and to renew. The following comment by interviewee 4 was illustrative of this:

With (teacher) I suppose I’ve had a long-standing relationship where we tend to annoy each other. It amazes me when we sit down to do things together we always get something good at the end of it. But we always seem to approach the issue from different view-points. It is a creative tension, but stressful ... we have different views and although we want the same thing, we approach it from different angles.

For others the energy comes from the challenge to improve (potential energy): “I want students to learn better and enjoy more. Professional discussion, research, literature and leadership challenges me to try different things”. Also teaching was seen as a calling: “I tried other things first but hated them. I feel at home as a teacher” whilst interviewee 8 said it was a

passion for teenagers influenced by my own lack of opportunities ... it comes from a social conscience and a moral base, not power or money. Nothing! could make me leave teaching.

Notwithstanding all of these factors, teaching was seen, almost to a person to be a vocation and not a job. For example, interviewee 6 says:

I wake up really enjoying going to work and it adds to my will and drive to be a teacher. The variety - everyday is different - the helping out adds value to me. We are enriched by each other through negative and positive experiences and have become more caring.

It was felt that there was a definite staff spirit (kinetic energy) with some pockets of negativity but as a whole the school is full of spirit and one of 'mind and heart'.

5. Chapter Five: Conclusion

5.1 Purpose of the Research

This case study examines the effects of ongoing educational change that has occurred at a particular school. It attempts to identify the thoughts of teachers as they work within this culture of change and link them to the literature on what change looks like from the position of teaching. The study will extend the supporting literature in its understanding of how and why teachers change (or indeed not change) and how they perceive teaching and learning in this particular school setting.

5.2 Design of the research

As outlined in chapter 3, the presentation of data is thematic with the various sources (see table 9) of data contributing to the overall discussion on educational change. With this in mind, it is not the intention of this study to conclude with a definitive list of effective change strategies that would ensure success if this formula was followed. The situation is more complex than this oversimplification would have us believe. The outcome of this case study is open ended rather than closed. The purpose is to identify generative conclusions that might be useful in both this situation and in other contexts of educational change.

5.3 The research questions answered

The study of effective educational change is a complex social process with no easy solutions. To guide the research a framework of change concepts was constructed from the work of the natural sciences as identified in the literature review.

The first research question came from the element, force:

Question 1: What influences have produced a change in the way teachers do things at the teaching - learning interface?

The perspectives of teachers identified internal forces such as personal philosophy, moral beliefs and spirituality as most influential. The research clearly suggests the need for these forces to be aligned with a well articulated vision for improvement that involves ownership and empowerment of staff.

It was also identified that teachers needed to perceive the change to be relevant, beneficial, needed, and to make a positive difference that outweighed the investment in time and effort.

The second research question came from the element, Momentum:

Question 2: What factors made the changes difficult or easy to implement?

Corrosive negativism was seen as the main inhibiting factor to educational change. This was mentioned as occurring in a number of ways such as anti-authority because of unresolved conflict, fear of insecurity, fear of being found incompetent and cynicism about previous experiences of imposed change. Other factors that made change difficult were the size of the school that made it hard to achieve agreement and staff politics that tended to create cliques.

In contrast to the above difficulties is the productive strength created by like-minded staff sharing ideas. Mutual agreement was not always necessary. These groups, however, featured a constructive dialogue, a sense of belonging to a college community

and doing things for a greater good. It was these factors that were identified as making change easier.

The third research question came from the element, Energy:

Question 3: What contributed to or detracted from the personal motivation and energy of teachers to participate in the change process?

Motivation and energy seemed to come from a number of factors that included the need to create, to make a difference and to respond to a challenge. In general, the staff saw teaching as a vocation and not just a job. It was felt that there is a definite staff spirit and for most, a love of teaching that became their source of potential energy.

The fourth research question came from the element, Time:

Question 4: How have teachers been able to manage the time available for change?

The time given to staff on a Monday, last period for a semester, was seen by most as a cooperative and caring approach to assist staff in unit development. Time was not a significant factor with most staff citing holiday time being used to refresh and reflect and the use of student free days for development. It was noted that most teaching staff were below the recommended teaching allotment per week.

The fifth research question came from the element, Work:

Question 5: What are some of the ways teachers have changed their thinking and doing with regards to teaching and learning?

Teachers felt their approach to teaching had changed from a 'jug - mug' transmissive model to a contextual, student-centred, constructivism. In general they felt that students were more in control of their learning and that there is now more emphasis on learning and the achievement of identified outcomes.

The sixth research question came from the element, Power:

Question 6: What is the nature of relationships that have influenced the teacher to change?

The process of educational change has been one of shared decision making and smaller collaborative working groups. Many staff mentioned the satisfaction of working with like-minded others. Initially the restructure required movement in whole staff thinking and an understanding of how the parts (whether they be subject groups or pastoral groups) were interconnected and contributed to the school's mission. There was inclusivity and acceptance of those who were negative or neutral towards the changes with a general will to look for solutions to issues. It is the researchers belief that many of these teachers have changed as different ways became more established and benefited student learning.

5.4 Conclusion

It is when teacher perspectives on each of the components of force, momentum, energy, time, work and power are appreciated and their significance understood by change agents that effective educational change can be implemented in context.

The school in this case study had a high internal mass with considerable momentum of its own. Self regulation and autopoiesis were factors that maintained a culture of the way things were done and would be largely impervious to isolated change efforts. The force and impulse required to change this momentum was provided by a school review

“Creating the Future”. It was achieved through participative decision making led by an external facilitator. This ‘push’, however, would not have maintained momentum if new structures were not put in place to support the leadership for change.

The new vision for this schools implementation of the Edmund Rice charism, however, was not shared or seen by all. Some latent and unresolved anger, resentment and cynicism about the process lingered on. Nevertheless, there is a new energy, purpose and creativity that is on-going and producing significant educational change to learning in the classroom.

It is evident from this study that the successful implementation of continual renewal of what we do in the classroom comes from within the community and from within the individual and not by the hierarchical passing down of rules and regulations. Moreover it is concluded that, for successful educational change, the staff and college need a clearly articulated and agreed focus and vision for what they are doing.

5.5 Implications for further educational change

The possible future for educational change at this college may well build on the Edmund Rice Charism as interpreted by its staff. The integration of how each department links into this development will be critical. A focus for this change might be the development of the whole being, the student’s personal self and their soul. The school community of educators might reflect on how each is to contribute to this vision and articulate this overtly. Each department would contribute to the aesthetic, express feelings on contemporary issues of justice and spirituality, and develop in students an appreciation of a care for the Earth and its sustainability. The curriculum might contain more reflection time for soul development (Dr. P. Harney, Principal, a reflection during the PAR reviews 1997).

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7. Appendices

7.1 Questionnaire

Australian Catholic University
 Research Project - Master of Education

PERCEPTIONS OF TEACHERS IN A CULTURE OF CHANGE

Questionnaire

Since the Curriculum Review "Creating the Future" was held in 1993, there has been a process of planned change within the College. The purpose of the questionnaire is to gather information about the effects of this ongoing educational change at the "chalk-face". It attempts to identify the feelings, emotions and thoughts of teachers as they work within this culture of change. It also attempts to understand how and why teachers change (or indeed not change) and the way they perceive teaching and learning.

The issues that emerge from this questionnaire will form the basis for focused interviews. The data gathered will assist the College in its reflection on the effectiveness of the educational changes over the past five years and provide guidance for the future.

The research paper that emanates from this study will be submitted in partial fulfilment of the requirements for the degree of Master of Education, Australian Catholic University. It is possible that findings of this paper may appear in a publication. Participation in this research is voluntary and participants may withdraw at any time.

All information will be confidential. Participation in this research is voluntary.

RESPONDENT DETAILS

Where appropriate, circle the correct alternative

NAME (optional: to facilitate further research in this study only)				
Year of Arrival at the College				
Gender:	male / female			
Age (years):	20-30	30-40	40-50	50+
Position held:	Teacher	Subject Coordinator	House Dean	
	HOAD	CLT	Other:	
Approximate percentage of your timetable that you teach:		Years 8-10:	Years 11-12:	

QUESTION 1 - ASKS YOU TO REFLECT ON THE WAYS YOU HAVE CHANGED YOUR TEACHING OVER THE LAST 5 YEARS.

A	B
This scale indicates the extent of change over the last five years:	This scale indicates the importance you feel that this characteristic has in creating a more effective school:
① much less ② somewhat less ③ no change ④ somewhat more ⑤ much more	① not at all important ② not very important ③ fairly important ④ important ⑤ crucial

Reflects the extent of change in your teaching	Characteristic	Importance for a more effective school
1 2 3 4 5	Learning of content	1 2 3 4 5
1 2 3 4 5	Learning of processes	1 2 3 4 5
1 2 3 4 5	Learning of skills	1 2 3 4 5
1 2 3 4 5	Variety in assessment	1 2 3 4 5
1 2 3 4 5	Choice of appropriate learning pathways	1 2 3 4 5
1 2 3 4 5	Students accepting responsibility for their choice of subjects	1 2 3 4 5
1 2 3 4 5	Planning appropriate instruction	1 2 3 4 5
1 2 3 4 5	Use of technology	1 2 3 4 5
1 2 3 4 5	Variety of learning strategies	1 2 3 4 5
1 2 3 4 5	Opportunities for extension & enrichment	1 2 3 4 5
1 2 3 4 5	Awareness of student needs - pastoral	1 2 3 4 5
1 2 3 4 5	Awareness of teacher needs - pastoral	1 2 3 4 5
1 2 3 4 5	Expectation of high academic standards for students	1 2 3 4 5
1 2 3 4 5	Expectation for students to achieve to their potential	1 2 3 4 5
1 2 3 4 5	Consultation in decision making	1 2 3 4 5
1 2 3 4 5	Passion for teaching	1 2 3 4 5
1 2 3 4 5	Motivation for teaching	1 2 3 4 5
1 2 3 4 5	Working towards a shared vision - the Mission Statement	1 2 3 4 5

QUESTION 2 - ASKS YOU TO REFLECT ON WHAT HAS INFLUENCED YOU TO CHANGE ASPECTS OF YOUR TEACHING

C	
This scale indicates the degree of influence	
①	no influence
②	little influence
③	fair amount of influence
④	influential
⑤	crucial

Influence	Degree of Influence
In-service	1 2 3 4 5
Curriculum restructure	1 2 3 4 5
Administrative polices	1 2 3 4 5
Personal philosophy	1 2 3 4 5
Competitive - to be the best	1 2 3 4 5
Research	1 2 3 4 5
College Mission Statement	1 2 3 4 5
Political polices	1 2 3 4 5
Community pressures	1 2 3 4 5
Moral perspective	1 2 3 4 5
Soul forces	1 2 3 4 5

QUESTION 3 - ASK YOU TO REFLECT ON THE FACTORS THAT CONTRIBUTE TO THE EFFORT REQUIRED IN CHANGING.

D	
This scale indicates the effect of the characteristic on the effort required to change	
①	Made the change process more difficult
②	Made the change process somewhat more difficult
③	Had no effect
④	Made the change process somewhat more easy
⑤	Made the change process much more easy

Characteristic	Effort Required
Size of the school population	1 2 3 4 5
Social groups - 'cliques'	1 2 3 4 5
Traditional subject groupings	1 2 3 4 5
Syllabus regulations	1 2 3 4 5
BOSSSS regulations	1 2 3 4 5
School Administration - CLT	1 2 3 4 5
Curriculum structures	1 2 3 4 5
Staff 'politics'	1 2 3 4 5
Time made available in the timetable	1 2 3 4 5
Holiday time	1 2 3 4 5
Student-Free days	1 2 3 4 5
Speed of change	1 2 3 4 5

QUESTION 4 - ASKS YOU TO CONSIDER THOSE FACTORS THAT GIVE YOU ENERGY.

E	
This scale indicates the degree to which the factor gives you energy for teaching	
①	Feel much less energised
②	Feel somewhat less energised
③	No effect
④	Feel somewhat more energised
⑤	Feel much more energised

Factor	Degree				
A new role within the restructure	1	2	3	4	5
Possibilities presented in a change of curriculum	1	2	3	4	5
The mental stimulation of study and learning	1	2	3	4	5
Working collaboratively with 'like-minded' people	1	2	3	4	5
Working in a stable, predictable environment	1	2	3	4	5
A shared commitment - sense of whole school learning	1	2	3	4	5
Involvement in co-curricular activities	1	2	3	4	5
Spiritual - from within	1	2	3	4	5
A personal mission - 'calling'	1	2	3	4	5

Please use the following space to comment further on any of the above questions or on other related issues:

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Thanks for your time and consideration

7.2 Questionnaire results- Perceptions of teachers in a culture of change

7.2.1 Coding

Name: If this was given, it was recorded as “staff1...”. If no name was given, the questionnaire was identified as “s1...”

Length: Time at the college 0 = 0-1 year, 1 = 1-3 years, 2 = 3-5 years, 3 = 5-10 years, 4 = 10-20 years, 5 = more than 20 years.

Gender: 0 = male, 1 = female.

Age: 0 = 20-30 years, 1 = 30-40 years, 2 = 40-50 years, 3 = 50+ years.

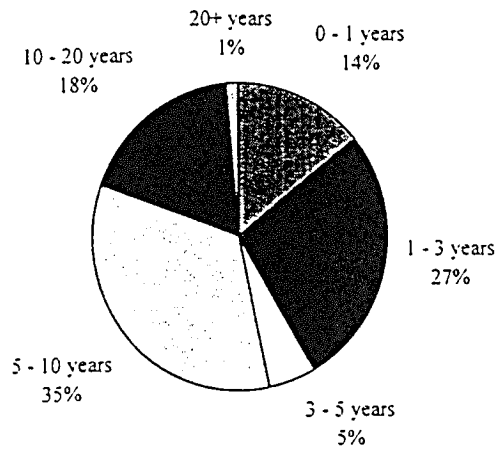
Position: 0 = Teacher, 1 = Subject coordinator, 2 = House Dean, 3 = HOAD (Head of Academic Department), 4 = CLT (College Leadership Team).

Grades: 0 = less than 15% of their teaching allocation, 1 = more than 15%.

7.2.3 Questionnaire - teachers profile

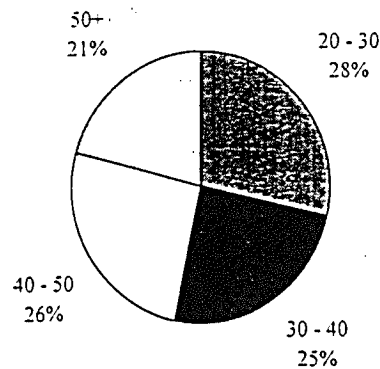
Length of teaching time at College

Number of Years	0 - 1 years	1 - 3 years	3 - 5 years	5 - 10 year	0 - 20 year	20+ years
Number of teachers	11	21	4	26	14	1



Number of teachers by age group

Age	20 - 30	30 - 40	40 - 50	50+
Number of teachers	22	19	20	16

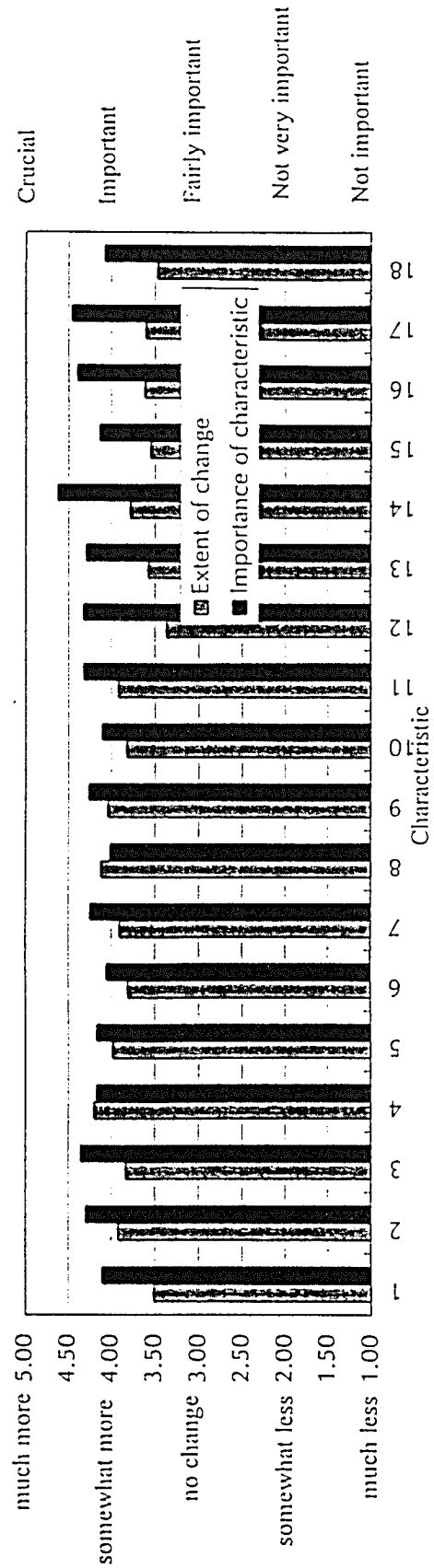
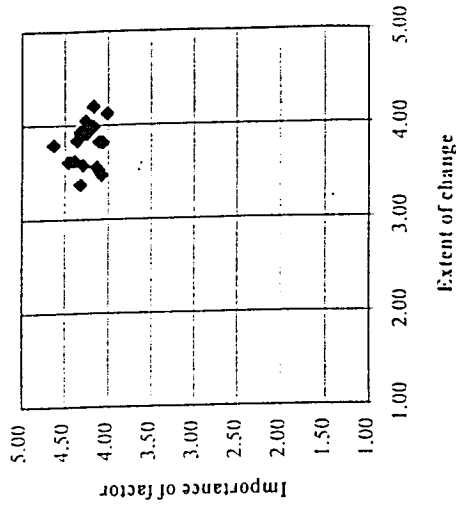


Number of teachers with more than 20% of timetable in years 8 - 10	56	73%
Number of teachers with more than 20% of timetable in years 11 - 12	60	78%

Number of female respondents with more than 1 year at the college - 15
 Number of male respondents with more than 1 year at the college - 51

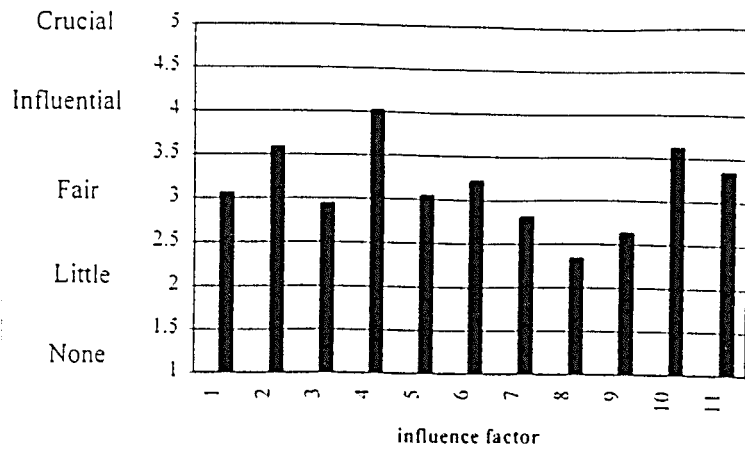
7.2.4 Questionnaire data sorted on change characteristics.

Characteristic	Extent of change	Importance of characteristic
1	3.52	4.11
2	3.92	4.30
3	3.83	4.36
4	4.20	4.17
5	3.98	4.17
6	3.82	4.06
7	3.91	4.25
8	4.12	4.02
9	4.05	4.26
10	3.83	4.11
11	3.92	4.32
12	3.37	4.32
13	3.58	4.29
14	3.79	4.63
15	3.55	4.14
16	3.62	4.40
17	3.61	4.46
18	3.47	4.08



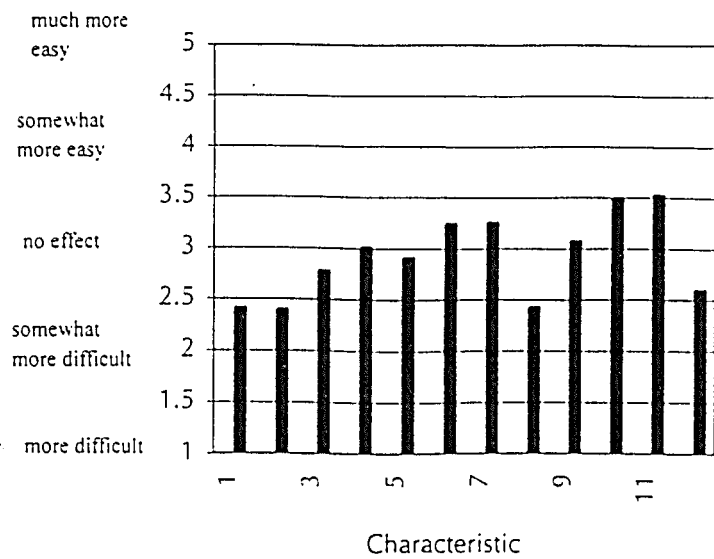
influence

	Influence factor	degree 1-5
1	In-service	3.06
2	curriculum restructure	3.58
3	admin. polices	2.94
4	personal philosophy	4.02
5	competitive	3.05
6	research	3.22
7	Mission Statement	2.82
8	Political polices	2.34
9	community	2.63
10	moral perspective	3.63
11	soul forces	3.35



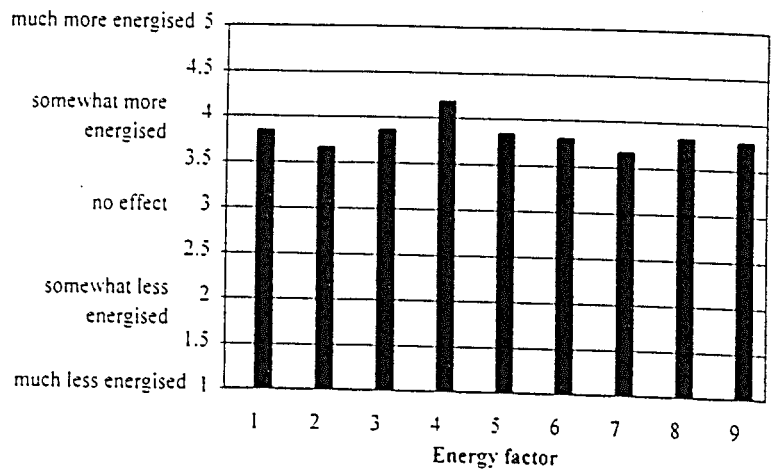
effort

	Characteristic	Effort
1	Size of school	2.42
2	Cliques	2.40
3	Subject groupings	2.78
4	Syllabus regulations	3.02
5	BOSSSS regulations	2.92
6	CLT	3.25
7	Curriculum structures	3.26
8	Staff politics	2.43
9	Time available	3.08
10	Holiday time	3.50
11	Student-free days	3.53
12	Speed of change	2.60



energy

	Energy factor	Energy
1	New role	3.84
2	Possibilities	3.67
3	Study	3.86
4	'Like-minded' collaboration	4.18
5	Stable & predictable environment	3.85
6	Shared commitment	3.80
7	Co-curriculum	3.67
8	Spiritual	3.83
9	Personal 'calling'	3.80



7.2.5 Questionnaire data sorted by age groupings

change

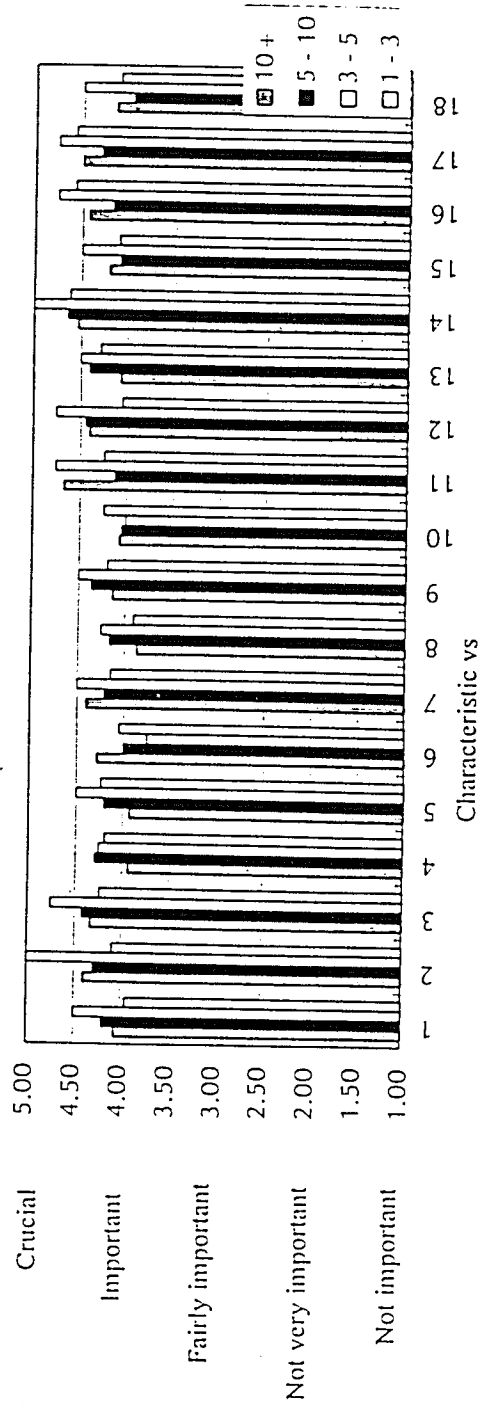
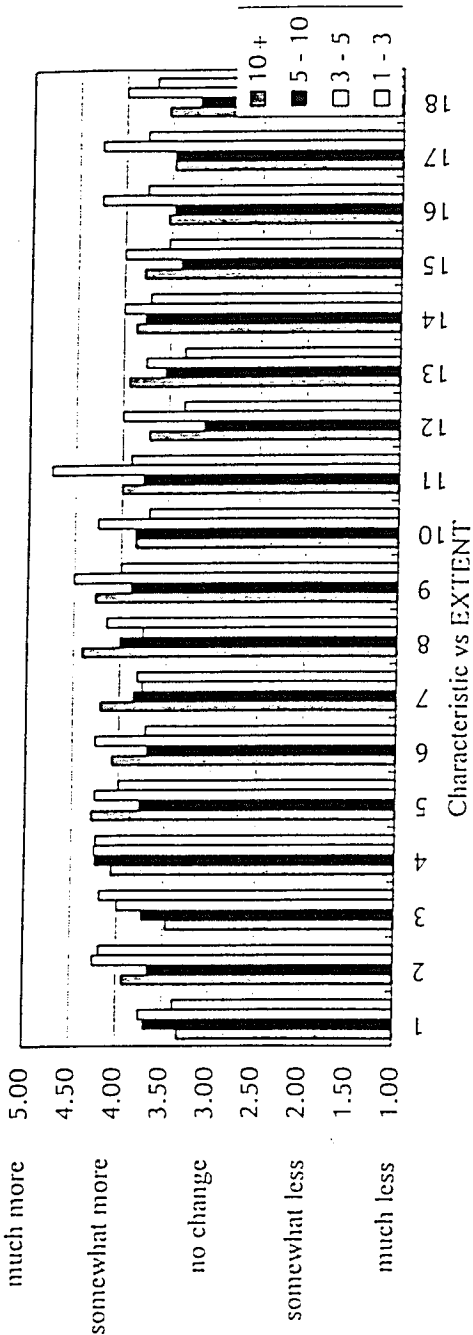
Importance

	Characteristic	10 +	5 - 10	3 - 5	1 - 3
Content	1	4.07	4.20	4.50	3.95
process	2	4.40	4.29	5.00	4.10
skills	3	4.33	4.42	4.75	4.24
assessment-variety	4	3.93	4.29	4.25	4.19
choice of L. pathways	5	3.93	4.20	4.50	4.24
students acc. responsibility	6	4.29	4.00	3.75	4.05
planning instruction	7	4.40	4.21	4.50	4.14
technology	8	3.87	4.16	4.25	3.90
variety of L. strategies	9	4.13	4.36	4.50	4.19
extension & enrich. opport.	10	4.07	4.04	4.00	4.24
pastoral-student	11	4.67	4.12	4.75	4.24
pastoral-teacher	12	4.40	4.44	4.75	4.05
expectations-academic	13	4.07	4.40	4.50	4.29
expectations-potential	14	4.53	4.64	5.00	4.62
consultation in decisions	15	4.20	4.08	4.50	4.10
passion for teaching	16	4.43	4.17	4.75	4.57
motivation for teaching	17	4.50	4.29	4.75	4.57
working to a shared vision	18	4.14	3.96	4.50	4.10

Extent of change

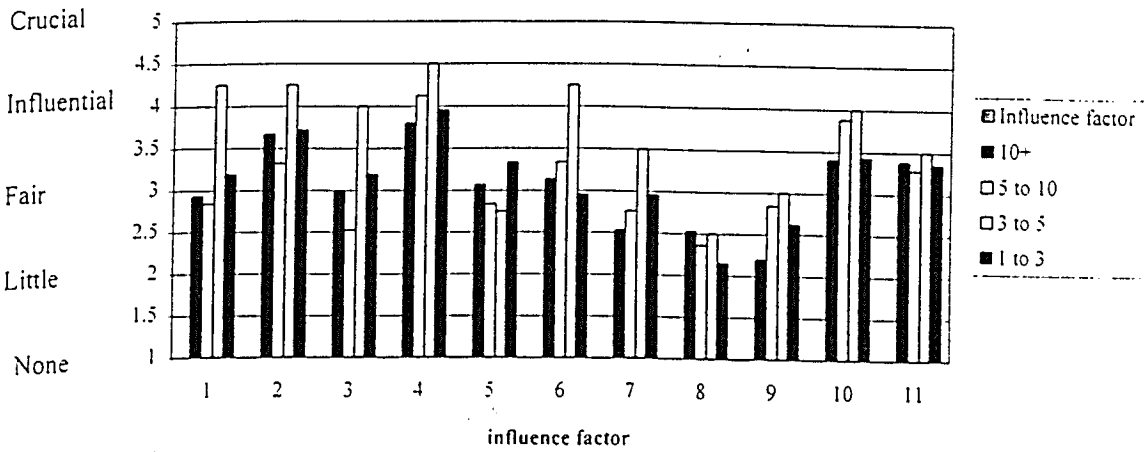
	Characteristic	10 +	5 - 10	3 - 5	1 - 3
Content	1	3.33	3.69	3.75	3.38
process	2	3.93	3.65	4.25	4.19
skills	3	3.47	3.73	4.00	4.19
assessment-variety	4	4.07	4.24	4.25	4.24
choice of L. pathways	5	4.29	3.77	4.25	4.00
students acc. responsibility	6	4.07	3.69	4.25	3.71
planning instruction	7	4.20	3.85	3.75	3.81
technology	8	4.40	4.00	3.75	4.14
variety of L. strategies	9	4.27	3.88	4.50	4.00
extension & enrich. opport.	10	3.85	3.85	4.25	3.70
pastoral-student	11	4.00	3.77	4.75	3.90
pastoral-teacher	12	3.71	3.12	4.00	3.33
expectations-academic	13	3.93	3.54	3.75	3.33
expectations-potential	14	3.87	3.77	4.00	3.71
consultation in decisions	15	3.79	3.38	4.00	3.52
passion for teaching	16	3.53	3.46	4.25	3.76
motivation for teaching	17	3.47	3.46	4.25	3.76
working to a shared vision	18	3.53	3.19	4.00	3.67

change

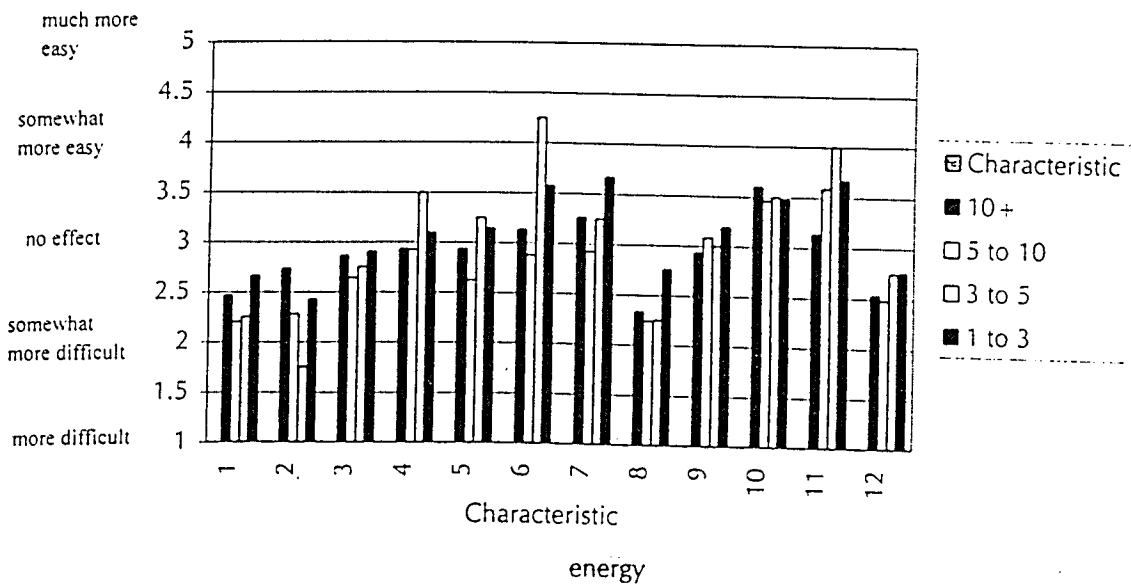


influence

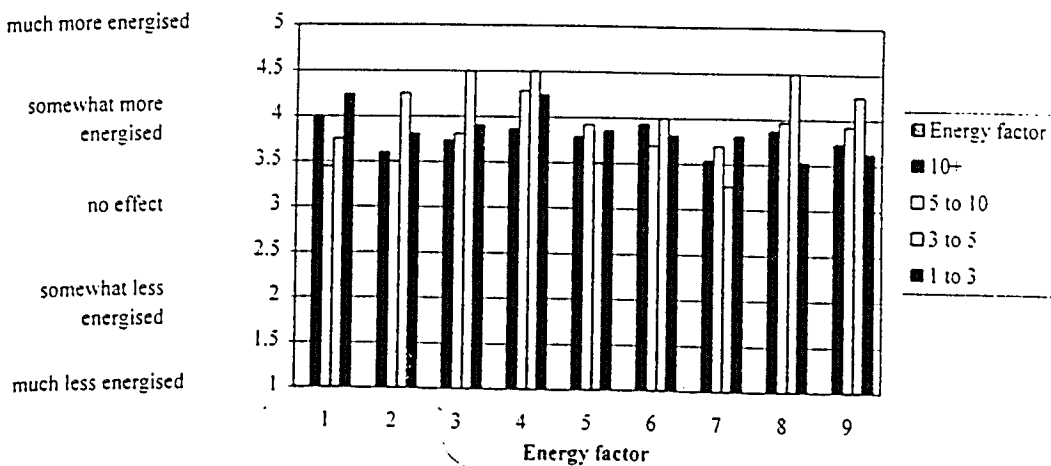
Influence factor	10+	5 to 10	3 to 5	1 to 3
1 In-service	2.93	2.84	4.25	3.19
2 curriculum restructure	3.67	3.32	4.25	3.71
3 admin. polices	3.00	2.52	4.00	3.19
4 personal philosophy	3.80	4.12	4.50	3.95
5 competitive	3.07	2.83	2.75	3.33
6 research	3.13	3.33	4.25	2.95
7 Mission Statement	2.53	2.76	3.50	2.95
8 Political polices	2.53	2.36	2.50	2.14
9 community	2.20	2.84	3.00	2.62
10 moral perspective	3.40	3.88	4.00	3.43
11 soul forces	3.38	3.28	3.50	3.35



Characteristic	10+	5 to 10	3 to 5	1 to 3
1 Size of school	2.47	2.20	2.25	2.67
2 Cliques	2.73	2.28	1.75	2.43
3 Subject groupings	2.87	2.64	2.75	2.90
4 Syllabus regulations	2.93	2.92	3.50	3.10
5 BOSSSS regulations	2.93	2.62	3.25	3.14
6 CLT	3.13	2.88	4.25	3.57
7 Curriculum structures	3.27	2.92	3.25	3.67
8 Staff politics	2.33	2.24	2.25	2.76
9 Time available	2.93	3.08	3.00	3.19
10 Holiday time	3.60	3.46	3.50	3.48
11 Student-free days	3.13	3.58	4.00	3.67
12 Speed of change	2.53	2.48	2.75	2.76



Energy factor	10+	5 to 10	3 to 5	1 to 3
1 New role	4.00	3.44	3.75	4.24
2 Possibilities	3.60	3.50	4.25	3.81
3 Study	3.73	3.81	4.50	3.90
4 Like-minded' collaboration	3.87	4.28	4.50	4.24
5 Stable & predictable environment	3.79	3.92	3.50	3.86
6 Shared commitment	3.93	3.69	4.00	3.81
7 Co-curriculum	3.53	3.69	3.25	3.81
8 Spiritual	3.87	3.96	4.50	3.52
9 Personal 'calling'	3.73	3.92	4.25	3.62



7.3 Preliminary findings from the questionnaire

7.3.1 The extent that teachers have changed in the last five years.

All 18 characteristics on the inventory have changed somewhat with the greatest change occurring in:

- variety in assessment
- use of technology
- variety of learning strategies
- choice of appropriate learning pathways
- awareness of student needs - pastoral
- learning of processes (esp. teachers at the college 1 - 5 years)
- planning instruction (esp. teachers at the college 10+ years)

The least change occurring in

- awareness of teachers needs
- working towards a shared vision - the mission statement

All characteristics were important to teachers with the most important being:

- the expectation for students to achieve to their potential
- motivation for teaching
- passion for teaching

7.3.2 The factors that have been influential in teachers changing:

Most influential were:

- personal philosophy
- curriculum restructure
- moral perspective
- soul forces
- inservice for teachers at the college 3 - 5 years
- competitive to be the best

The least influential were:

- political policies
- community pressures

7.3.3 Those characteristics that made the changes for teachers easier:

- student-free days
- holiday time
- school administration - CLT
- curriculum structure

Those characteristics that made the change more difficult

- size of school
- cliques

- staff politics

7.3.4 Factors that gave staff energy:

All nine factors were high with the greatest being “like-minded” collaboration.

7.4 Interview guide for teacher's perceptions of change

I would like to explore the notion of what has changed.

Q1 In what ways has the teacher's perceptions of students and their needs changed?

Q2. With respect to the pastoral care of teachers, how can staff identify or articulate their own needs?

Q3. In an atmosphere of change, what variations in approaches to teaching and learning have you witnessed here over the last 5 years?

I would also like your help in identifying what factors influence change. The literature and our questionnaire seem to be saying that these factors come from within the person or the community as opposed to being imposed 'top down' - bureaucratically.

Q4. Reflecting back over the last few years, what has been most influential in causing you to change?

- job vs vocation
- spiritual/soul/a calling or moral perspective vs do things because of rules, quid pro quo, what is in it for me vs 'the greater good'.

Q5. To what extent have you personally found it liberating and empowering to work with colleagues who share a vision for renewal?

- What does it do for you? invigorating, affirmation of heading in the right direction?

Again, literature in this field and the findings of the questionnaire would seem to indicate that the existence of cliques and associated staff politics in any organisation have an influence and a force that may not necessarily be positive.

Q6. What influence do such groups have at Nudgee?

7.5 Eight essentials of Christian Brother Education

Evangelisation of the Modern World: A Christian Brother's school contribute to the overall mission of the Catholic Church by bringing the Good News of Jesus Christ to every aspect of its life as an educative community. In doing so it fulfils the specific mission entrusted to the Congregation of Christian Brothers: " the Evangelisation of youth through the Apostolate of Christian Education".

Awareness of the Spiritual: The Christian Brothers' school fosters an awareness that the fulfilment of human existence lies beyond this world. It points from the visible to the invisible rejecting a vision of the human person which is purely material and temporal.

Building of a Christian Community: As with every community centred on the person of Jesus Christ, the quality of relationships is of particular importance. The Christian love the community seeks to enshrine is characterised by mutual respect, self sacrifice and good humour.

Compassion for the weak: Particular love and concern is expressed towards the weakest members of the school community. This compassion is also expressed in practical action on behalf of the poor and marginalised both locally and internationally.

Concern for the Whole Person: The central purpose of a Christian Brothers' school is the wholesome religious, moral, intellectual, cultural, physical and social education of its students. Concern for the whole human person also extends to the adult members of the school community.

Striving for excellence: The Christian Brothers' school encourages each person to use their talents to the full whether academic, cultural or physical.

Teaching as a Christian Vocation: The role of the Christian teacher is highly esteemed and the educative task is seen as more than just a job. It is recognised as a calling from God expressing His kind purposes for the future of humanity.

Education for justice: Christian Brothers' education is more than an end in itself. It is a process of transformation with the expressed aim of making society more just and thus contributing to the building of the Kingdom of God on earth.

7.6 Mission Statement

We are members of the (Name) College Family, founded by the Christian Brothers to provide a balanced education for the development of the whole person.

Faithful to the dream of Edmund Rice, we hold a special concern to act justly and with compassion especially towards those most in need.

Our College Family is based on a century of Catholic faith, residential care, the service of others, loyalty and friendship.

In Jesus our brother, we are determined in our struggle to uphold, communicate and nurture the values of the Gospel.

We work together to create an environment where every person is respected and each student is encouraged to strive in the academic, spiritual, social, personal, cultural and sporting aspects of life.

Appendices

Our goal is that each member of our family will become for the world, a Sign of the Faith:

Signum Fidei.