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APPENDIX 1

Report on curriculum 'pathways' written by staff 27 who attended the conference on alternative learning strategies given by Mike Middleton in early 1992; this was available for all staff to read. This conference was one of the initial stimuli towards the review of educational directions at the School.

CONFERENCE REPORT

STUDENT OUTCOMES: THE FOCUS OF CURRICULUM

IMPROVING AND ENHANCING LEARNING FOR STUDENTS

A. Mike Middleton delivered two papers on the first day of the conference. These were largely anecdotal and in some respects a repetition of his talks to [the School] staff in 1991. Following is an outline of his main points.

Paper One: Clarification of Outcomes Based Education

1. General Comments:

1.1 There are many aspects to the concept of outcomes, they are hard to quantify.

1.2 Educational change and discussion of change has been taking place over a long period in Australia, outcomes are but the latest manifestation of that change but reflect a long-term pattern of ideas that have been emerging and developing.

2. Schools in post-industrial age:

2.1 We can have schools where less students fail, we can move away from the competitive model of education and focus our curriculum on the fact that all students can succeed. We should not mandate that a certain percentage have to 'fail' as in the current HSC syndrome. The TER is an anachronism.

2.2 There is a need for risk-taking, not prescriptions; ambivalence and change make it very difficult to establish rigid goals.

2.3 Outcomes should not be performance agreements for teachers.

2.4 There is a contradiction between the concept of outcomes and the current idea of quotas. We cannot increase the success rate of schools with quotas.

2.5 Outcomes should not be limited to just student outcomes; they should be long-term and holistic.

3. Previous educational strategies:

3.1 Past education systems have reflected the patterns of the agrarian (annual harvest) and industrial (hierarchies) revolutions. In an industrial school the process drives activity: a constant process is applied to different students who respond in different ways and therefore achieve differentiated outcomes.

3.2 This was fine in an industrial society where a pool of unskilled workers was required but did not represent equality of opportunity as certain groups consistently did better than others under this model. For example, white Anglo-Saxon males achieved better outcomes than aboriginals, girls and migrants.

3.3 In Australia in the 1970's and 1980's an attempt was made to achieve equal outcomes for these groups by providing more money for disadvantaged schools and groups but the extra money did not ensure equality of outcomes as process remained undifferentiated.

3.4 It is therefore important to move to outcomes based education for reasons of social justice.

3.5 The perceived hierarchy of subjects leg. Maths, Science, English dominate) also leads to inequalities - the success of some is defined by the failure of others.

3.6 Attempted curriculum changes did not achieve equality of outcomes students still either succeeded or failed; 'treadmill factors' still operated: norm-based assessment, rigid timetables, unchanged teacher training, a gap between parents and the school, and a win/lose mentality. There was no attempt to reform whole school structures.

4. Outcomes:

4.1 A real change in education is taking place with the move towards new concepts of knowledge and learning and towards the use of outcomes.

4.2 The industrial model cannot continue. The challenge is in providing goal-based learning for students, to move away from the winners/losers pattern which is detrimental to society as a whole. Students will learn more effectively if they have outcomes, if they know what their goals are and work towards them.

4.3 Australia is not intellectually competitive. We need to stop thinking of individual outcomes only and also think of outcomes for the nation and for society. The school curriculum is designed to Provide differentiated credentials but this is no guarantee that the needs of individuals, employers or society are being met. People are beginning to question the effectiveness of education. We need a collective ethos, not just individualism to really benefit society.

4.4 We should plan the future by deciding upon the outcomes we want as a society. The future is open, knowledge is infinite but we can take control if we plan the future according to outcomes.

4.5 Outcomes should not be competitive but available to all. To achieve this teachers must look at the learning process, to move away from the industrial fixed-process model and to seek to provide differentiated processes so that all students are capable of achieving outcomes.

Paper Two: School and Classroom Organisation

1. Facilitating change

1.1 Need to change people involved in education, especially their ideas of the function they want to perform, rather than to change structures. When the people have recognised a need for change, the structures will change to fit the new perceived needs and functions.

2. Future needs

2.1 Learning needs to be goal based.

2.2 Students need control over learning.

2.3 Students need to have outcomes in mind.

2.4 Knowledge should not be just transmitted, students need to learn how to learn especially for their future needs outside the classroom.

2.5 There is a need to meet social needs, to overcome injustices and inequities.

2.6 There is a need to Plan for the future.

3. Classroom practice

3.1 Process should be differentiated to ensure guaranteed outcomes for all.

3.2 There should be a core of essential earning.

3.3 Teachers need to program for outcomes by:

i. knowing the outcomes they seek
ii. 'mapping' what students know
iii. planning to extend the range of activities, catering for different learning styles
iv. evaluating own teaching, preferably with a Peer
v. monitoring student achievement and helping them to monitor own achievement (by reflecting on learning process, self-assessment and profiling)
vi. planning future learning on the basis of prior learning

4. Ways of catering for different learning styles:

4.1 Vary activities within subject

4.2 Team teaching

4.3 Use a learning centre

4.4 Co-operative learning

4.5 Contracted learning

4.6 Self assessment (encourage students to write and talk about their own learning.)

4.6 Celebrate achievement

4.7 Reflect on current teaching program and check the balance of watching and listening, questioning, doing, applying, interacting, reflecting, using the wider environment.

5. Desired educational outcomes

5.1 Students taking responsibility for and ensuring greater control over their own learning

5.2 Students believing in their learning potential

5.3 Students being reflective and knowing themselves as learners

5.4 Students who can make meaning

5.5 Students who are good problem solvers, communicators and decision makers and competent in group processes

5.6 Students with a developing set of values on which they base their decisions

5.7 Students who question

6. The new model?

6.1 The old model resulted in differentiated outcomes but the new school/model, by providing a differentiated process becomes an enab.er, providing outcomes for all.

6.2 Schools must cater for variations in culture, rate of learning, learning style, motivation and self-esteem.

6.3 Aspects critical for learning include:
      i. The social dimension - belonging, rights, interpersonal skills
      ii. The personal dimension - self-esteem, self-confidence
      iii. Skills for learning - listening, watching, summarising, researching, questioning, group skills
      iv. Learning how to learn - reflecting, knowing own style, knowing own limitations
      v. Building on previous knowledge - literacy, numeracy, having a frame of meaning

7. Comment:

7.1 These papers were useful in placing current educational debate in an historical context and in providing general philosophies and strategies as the bases for future action.

7.2 Middleton is an effective persuader in his argument that changes in education are necessary if Australian society is to competitively adapt to the requirements of a post-industrial age.

7.2 Middleton's ideas provided a general introduction to the more specific strategies introduced by Stephanie Burns in her session on catering for different learning styles. He demonstrated the need for differentiated Process in education, she provided some examples of how this can be achieved.

B. Learning Based on Outcomes: A National Perspective
Alan Ruby, First Assistant Secretary DEET

1. Why a National Curriculum? Why outcomes?

1.1 Outcomes based education has been a recurrent theme in educational discourse in the past ten years or so. This concern has been driven by the need for micro-economic reform, for Australia to be more competitive economically.

1.2 All the economies of the Asia Pacific region know that education and training are the key to economic competency but the move towards a national curriculum and outcomes should not just have an economic agenda.

1.3 We need to have a social agenda, to be aware of the need to sustain our standard of living and to maintain democracy and plurality on the base of a strong economy.

1.4 Economic rationale have, however been the driving force behind moves towards an outcomes based curriculum and a national curriculum.

2. What has been happening in the last five years?

2.1 There has been a move toward the acceptance of a common approach to curriculum in Australia with common and agreed goals.

2.2 A Curriculum Corporation has been set up to facilitate, inform and publish the works of national curriculum activities.

2.3 The AEC Curriculum and Assessment Committee has been set up to establish national collaborative curriculum and assessment framework.

2.4 National Curriculum Statements and Profiles have been developed.

2.5 Further work will be done to develop key competencies for 15-19 year olds.

2.6 There has been a review of compulsory education and training (Finn).

2.7 Recent reports into education can be briefly summarised:
      i. 95%, of 19 year olds should complete Year 12 or equivalent formal qualification.
      ii. Education should be of a better quality - all young people should achieve national agreed standards as described in employment related key competencies.

3. Other reasons for change

3.1 In the last ten years expenditure on public and private education has increased substantially in real terms but the level of input has probably reached its Peak - governments can't afford to spend more. The reasons are partly demographic - as Australian society ages there will be an increasing demand for other services in the areas of social security and health. There is a need to Provide education in a more efficient way.

3.2 The needs of the work-force have changed - more jobs require Year 12 credentials or better, even those in the retail sector. Available jobs in labouring, agricultural and construction industries have contracted Those who leave school before Year 12 are disenfranchised in the labour market and their quality of life potentially diminished. 15% of students leave school before Year 12 due to a variety of factors: lack of motivation, low basic skills, repeated failure, low economic status, sole Parent family status, poor educational achievement in parents, disabilities and being from NESB etc. More boys than girls 'drop out'. These people could increasingly become an underclass, a disaffected group which a young, democratic nation could not afford to have. Therefore this 15% is a very important part of the population which needs to be adequately catered for in our
education system.

C. ISSUES We Have to Face
Frank Fisher, Assistant Director General, North West Region.

1. Key Questions which need to be addressed by educators:

1.1 What are parents saying their children should achieve by the end of their schooling? There is a need to consult more with parents.

1.2 What are students saying they want to achieve while they are at school? The question of relevance is important.

1.3 How can we as a school achieve better outcomes for our students? This is a question that

needs to be asked in the long term.

1.4 How can we 'pick up' the challengirg 15%?

1.5 What do we as a staff have to do to achieve better outcomes?

1.6 What action can I take as an individual to achieve better student outcomes?

2. Schools Renewal

2.1 We need to consider the goals of Schools Renewal and the suggestions of the Scott Report.

2.2 Schools Renewal is about stating outcomes for schooling and school staffs having a clear understanding of the learning outcomes the school is trying to for its students. Are we incorporating these into the teaching program of the school?

2.3 Regions also need to have a clear understanding of the scope and level of learning outcomes which schools are trying to achieve.

2.4 The state office of the department is providing regions and schools with the learning outcomes which the department seeks for students in public schools.

3. Challenges for Schools

3.1 The learning needs of all students must be catered for as the retention rate is rising and needs to rise further. This is a dramatic challenge to schools.

3.2 The questions of relevance and how teachers teach are very important. Relevance is especially important to 15-19 year olds.

3.3 There is a need to develop a co-operative learning environment in schools.

D. Outcomes: The Board Perspective
Gary Johnson, English Assessment officer.

1. General

1.1 The notion of outcomes arose out of the Education Reform Act and was made mandatory in NSW syllabi.

1.2 Accountability of teachers in the learning process was
motivation for outcomes but they should not be seen just as
accountability.

1.3 Outcomes were originally difficult to comprehend at school level; the original Curriculum Outcomes document was 'virtually incomprehensible' and filled with jargon. The Board is rewriting this document in a more accessible form.

1.4 The vital questions for teachers are: How should outcomes be integrated into programs? How should meeting outcomes be addressed?

1.5 Programs should include aims, objectives, general outcomes and specific classroom outcomes.

These should become increasingly mor specific as you move through the hierarchy.

1.6 What is the difference between outcomes and objectives? Objectives state an intention, outcomes should be measurable. (It is difficult to differentiate between the two in some subjects where outcomes seem to be described very similarly to objectives.)

1.7 If the outcomes in a program are not full met by a student the student still progresses with their cohort. As far as the Board is concerned there is no such thing as de-acceleration. They are only making allowances for acceleration.

2. Outcomes and assessing student achevement:

2.1 Syllabus outcomes are observable and assessable.

2.2 Not all syllabus outcomes should be tested. Students attitudes and values should not be formally assessed.

2.3 Teachers' professional judgement is stressed, particularly given the fact that syllabus outcomes can be achieved at different levels of success.

2.4 Student performance should be assessed in terms of the achievement of syllabus objectives at a particular stage by using the outcomes as the performance indicators.

2.5 Teachers should address all the appropriate outcomes for a particular stage, but it is not possible to require that students achieve all of these outcomes at the same level of achievement.

2.6 Where students experience difficul y with a particular outcome teachers will continue to Provide appropriate remedial activities and where possible more teaching time and resources.

2.7 School programs are expected to Provide lesson and teaching outcomes which are school specific. It is suggested that mention of outcomes be the first step in programming.

3. What use are outcomes?

3.1 Outcomes can assist teachers with:
* better understanding the intention of a course
+ understanding different types of assessment tasks (diagnostic, formative, summative)
+ designing better assessment tasks which test a wider range of outcomes

3.2 Teachers should group various outcomes together in assessment tasks, not simply address one at a time which may lead to over-assessing.

3.3 The jobs that are available require people who can work in teams, operate under participative management styles and have a broad skills base. Schools do not prepare students for demands of the work-force. There is a fundamental mismatch between the priorities of educational institutions and the world of work and therefore a need for change.

4. What type of change?

4.1 The business sector argues for a change in the focus of schooling from process to outcomes.
4.2 The training sector see the notion of competencies as being important.

4.3 All want students with the ability to transfer what they have learned to new tasks and situations, an ability to apply knowledge and skills.

5. What are the key competencies?

5.1 * Collecting, analysing and organising information.
* Communicating ideas and information.
* Planning and organising activities.
* Working with others in teams.
* Using mathematical ideas and techniques.
* Solving problems.
* Using technology.

5.2 These competencies are not subject based and mustn't displace subjects.

5.3 Each competency has three performance levels described which have been taken to the business community and people in the workplace for feedback.

5.4 The competency 'using technology' was questioned in the feedback process as it is not generic but industry specific.

6. Conclusions

6.1 How we teach needs to change to fit in with these competencies. Competencies will need to be modelled in schools, this will challenge the ways schools are currently.

6.2 Content in school curricula is less important than how it is taught, how it is assessed and how it is reported.

6.3 Lock-step progression and 'batch processing' should be seen as anachronistic in education as these are dead in modern industry which has moved towards quality assurance and teamwork. Education structures need to change to catch-up with the realities of post-industrial society.

E. Catering for Different Learning Styles
Stephanie Burns

1. Introduction

1.1 Stephanie described her preferred note-taking procedures to the audience in the hope that we might experiment with same with our students: use of coloured texts, drawings, diagrams, symbols (such as a little key for key ideas), writing important information backwards etc. She stresses the need to move away from taking copious sheets of notes with a blue pen on white paper. She feels these are not very stimulating or memorable for revision purposes.

2. Learning models - Right Brain/Left Brain

2.1 Experiments have been carried out to distinguish between the functions of the left and right hemispheres of the brain in the learning process.

2.2 Left mode learners are good with language, have sound listening and writing skills and are probably readers. They enjoy detail and perceive texts in parts, they tend to learn in a linear, sequential process, to follow instructions well, to control time well and to achieve their goals.

2.3 Right mode learners tend to have more of a global overview of texts, to respond well to holistic images, to 'play it by ear', to be spatially aware (especially hand/eye co-ordination) and to be intuitive.

2.4 Left mode learners have in the past been favoured in education and in the work-force. Conventional teaching strategies particularly favour the left brain modality learner.

2.5 Yet, intuition is a very powerful resource. Regrettably this is probably the first casualty of early primary school experience.

2.6 There is a gender-based difference in learning modality: 80% males are right brain dominant and 80% females are left brain dominant. Boys tend to express right modality more when younger but begin to catch up with left modality use in their teens.

2.7 Educators must be wary of labelling young males as these could become self-fulfilling prophecies. Labelling creates unnecessary problems for males coming through into high school.

3. Learning Models - Bernice McCarthy's Learning Styles (4Mat)

3.1 Bernice McCarthy divides learning styles into four main categories:
* direct experience learners (who ask "why?", consider relevance important, 23% population);
* reflective learners (who ask "What?", favour information based learning, data, confirmation and substantiation, 31~0 population);" active learners (who do it, who ask "How?" who favour utility and who are inventors, 17% population);
* and concrete learners (who ask "what if?", consider possibilities, 29% population).

3.2 Again, schooling favours the 31%, of reflective learners.

3.3 From a teacher's perspective direct experience learners want to know "what I know"; reflective learners ask "what do others know that they want me to know?"; active learners want to "find out if what I know is what others know" and if it is valid? (does it work? is it true?); concrete learners are finding out "if what I know and others know can create new possibilities"

3.4 Teachers' strategies can be sequenced in such a way to cater for all learning styles:

 1. Begin with strategy to demonstrate relevance to cater for group one (demonstrate, recall personal experiences, guided fantasy, show and tell).
 2. Analyse results of relevance strategy (discuss, project, categorise.)
 3. Integrate observations into concepts (plays, guided fantasy, draw conclusions and make generalisations.)
 4. Teach it to them (exposition, lecture, worksheet, video.) Introduce relevant vocabulary.
 5. Reinforce the concepts (worksheets, teamwork, orals, quiz) - address any gaps in skills, knowledge here.
 6. Mess around with it, play with it.
 7. Analyse it for usefulness (presentation, skits, get a critique on it.)
 8. Develop a personal project on it and share with others.

3.5 This sequence of learning strategies can be applied in all subjects and are a very useful basis for staff development in an age where we are asked to differentiate teaching processes to cater for different learning styles.

4. Phases of Learning

4.1 Learning strategies include these phases:
 * Finding- listening, locating, reading

* Remembering
* Utility - putting it to use

4.2 School caters for the first two phase; very well but does not include the third phase often enough.

5. The Success Spiral Model (see Anthony Robbins, Unlimited Power)

5.1 Students performance is not always related to intellect, it is strategy based. 'A' students stumble on successful strategies and are able to repeat them, 'F' students don't.

5.2 The success spiral begins with potential which is converted into action, resulting in success which is translated into beliefs and attitudes about our ability to learn. This is then the starting point for new potential.

5.3 Students who experience three significant failures in a given area can believe that they have no potential in that area for a life-time. They become part of a failure spiral model.

6. Reading and Memory Strategies

6.1 Memory is a skill, not a talent.

6.2 We can teach memory skills in memorable ways.

6.3 There are two aspects to this: We must 'make it memorable' and we must link memory to a trigger.

6.4 Theories of memory
* We remember when events are linked to intense emotions such as guilt, pleasure, fear, embarrassment, danger or if the occurrence was a first-time experience.
* Our senses can help us to remember especially sight and smell.
* Repetition can aid memory.

7. "What every teacher Should know about....Learning...Reading...and Memory".
Videos held in the School library.

APPENDICES 2A & 2B

Example of two groups' papers summarising their thoughts and feelings on the directions that the School ought to take in its assessment of the curriculum. These papers were circulated to all staff and were presented at after-school or lunchtime meetings. Similar documents were also produced by the other four staff groups. The reports were given during meetings in Year 1, Terms 3-4.

Curriculum Development, Group One:
A Future Vision of The School:

General:

Need to stress importance of the development of the individual student to full potential, especially in those areas where special interests and talents lie. Avoid the marginalisation of the individual who is perceived to be different by the majority. Encourage intellectual, social, spiritual, cultural and physical growth in all individuals.

Implications: This may mean less emphasis on competitive sport and more on health and fitness; less emphasis on body contact sports and more on humanities based hobbies and recreational activities such as drama and public speaking. This could result in the establishments of clubs, say, in place of, or as well as, compulsory sport, in which students could be involved in activities more closely reflective of their individual interests. In the classroom, the introduction of vertical time-tabling and a unitised curriculum would help cater for individual differences. We need to cater for the non-conformist who may want to follow specialist interests. In summary, a progression from conformity towards a lowing more expression, and recognition, of individual differences.

Specific:
1. Intellectual:

* Vertical time-tabling to enable students to learn at appropriate level of competence and according to special interests and talents. This would break down the 'lock-step' progression of students through grades which might be inappropriate to their ability level in each subject. Students travel down appropriate learning 'pathways', detouring where necessary to consolidate learning or forging ahead where able. Thus, both the less able and the gifted are equally empowered.

* Vertical time-tabling almost inevitably leads to a unitised curriculum wherein teachers instruct, according to their own abilities and interest, students who have been counselled into a particular unit on their pathway of learning. leg WA Unit Curriculum in English - unit map, counselling guide-lines, example of unit of work.)

* Introduction of longer teaching blocs to facilitate more meaningful learning, especially in the senior School. The main implication of extended teaching blocs would be the need for teachers to vary their teaching strategies to maintain concentration and interest. For example, a mixture of teacher-centred and child centred strategies would break up the monotony of the lesson. The main reason for implementing such blocs would be to move away from the fairly fragmented school day and the loss of learning time in movement around the school. More meaningful learning may be achieved in a longer lesson.

* Each unit of work should be assessed by the student's ability to attain standards or to fulfil

criteria. Here, knowledge and skills are seen as cumulative and measurement of achievement involves seeing how far the student has travelled along the main learning pathway. This seems to be the current trend nationwide; the NSW Board is currently issuing curriculum outcomes documents. Other examples include the literacy profiles used in Victoria, the basic skills testing program in NSW, assessment profiles and 20 point assessment scale being used in Old in place of a percentile rank (out of 990) for school leavers and the work being undertaken by the AEC on profiles. In the Finn and Mayer Committees competence is portrayed as development within broad strands. Standards-based assessment is perhaps the single most important change in assessment practice in Australia in recent years and [the School] will inevitably have to fulfil Board requirements in this area.

* Each student could become personally responsible for compiling a 'Record of Achievement' as they travel along these pathways of learning. This would mainly be used to gain entry into the work force but could also be continued past secondary education to record on-going achievements as students train and retrain throughout their lives. This would encourage students to take
responsibility for their own learning and to set their own goals. This could include a resume; formal school certificates, reports, awards and work experience details; assessments on key employment-related competencies and other records such as references and record of extracurricular participation and achievement. (For further discussion of Records of achievement see Baumgart, Neil, 'A framework for assessment and reporting in primary and secondary schooling", Independent Education, Vol 22, No 2, June 1992, p22 ff.)

* Such a School would need a vastly expanded resource base.

2. Social:

* That [the School] should become co-ed beginning from Year 7 and moving through from that point. The main reason for this would be to allow natural and relaxed socialisation between the sexes. A single sex environment not only tends to breed a vigorous sexist culture but may retard the ability of many boys to unselfconsciously interact with girls, both now and in the future. The problem of providing equal opportunities for female success in, say, the maths and sciences, may still have to be addressed by the provision of single-sex classes in these areas.

* That a personal development policy be developed and a program implemented which may pertain to such issues as values, ethics, sexuality, mental health, drug use, interpersonal relationships, hygiene and fitness.

* That the pastoral care role of tutors be expanded. That students be organised into year groups with year advisers. That PD camps be held annually. 'That a School counsellor be employed in conjunction with the PD program to also attend to the psychological problems of the student which fall outside the pastoral care role and expertise of house staff.

* That a community service program be implemented to encourage concern for others and more

positive ties with the community at large. This should be compulsory and not an extra tacked onto the school day. The practical elements of this could be run by tutors who may need to be in-serviced. The main purpose of this may to be to foster a greater degree of selflessness and genuine concern for others among students.

* That horizontal boarding be introduced in Years 11 and 12 with vertical boarding for Years 7-10 only. This would allow the senior students to devote more time to study and give the Year 10 students greater opportunity to develop leadership skills. Alternately, all boarding houses could be based on year groups with a pastoral care network established under a year group leader/housemaster.

* Behavioural: That a non-punitive disc pline policy be introduced based on policies and strategies which make students responsible for their own behaviour. Discipline is frequently equated with control and punishment, with negative sanctions being applied to unacceptable behaviour but as an educational construct the concept should include at least three objectives:

fostering students' personal development,
facilitating individual and group learning and
creating an environment where such processes may occur via classroom management and control. Good discipline is an important influence on the student's ability to develop and grow, to become self-controlled and self-actualised. Good discipline should imply a system of negotiated rules and regulations, recognised as legitimate by students as well as teachers. Discipline policies which fulfil the above criteria are William Glasser's Reality Theory and L.Canter's Assertive Discipline Policy. Glasser relies on open communication between student and teacher and a withdrawal/boredom structure under which there is far from being an adversarial situation. Glasser says, 'Give the kid a chocolate frog." Canter relies more heavily on a hierarchy of five time-out type consequences for misbehaviour inside a student framework of known and clearly spelled out behavioural expectations. A ny discipline policy should be fully negotiated by administration with staff and be consistently applied across the whole School. Responsibility for the development of appropriate classroom behaviour should rest squarely on the shoulders of the teacher but within a clearly defined policy structure and support system.

3. Physical:

* That there be less emphasis on competitive sport and a greater choice of extracurricular e, drama, journalism, creative writing etc.

* That there be an emphasis on fitness, hygiene, health and nutrition. eg House tuckshops to be encouraged to sell only fairly nutritious food and boys be encouraged to shower and wash hair more frequently and efficiently.

* That there be an emphasis on outdoor education and environmental awareness.

4. Cultural:

* That there be an emphasis on the development of cultural literacy. This could mean greater involvement with the various cultural groups and activities in the local community - an attempt to have students recognise aspects of their own culture and that of minority groups such as Asian students. Students would be given the opportunity to gain a sense of individual worth and identity through cultural pursuits.

5. Spiritual:

* Stress the importance of the individual's personal spiritual growth. Provide more opportunities for spiritual reflection. eg retreats. Expand the pastoral care role of tutors to encompass aspects of spirituality.

* The School could become more overt y Christian in its daily routine. eg prayers at beginning of day. There may be a need for the more explicit teaching of Christian values.

6. Staff:

*That there be a professional development policy to encompass annual personal reviews and evaluation and curriculum development in-service structures. To provide re-training opportunities to enable staff to adapt to changing requirements of profession.

* To utilise staff according to their special talents.

* Above all, implement structures which give staff a feeling of empowerment and personal recognition for their service.

Lock step progression\ regression: Group two

The Individual curriculum

The Finn report states " Curriculum m ist be appropriate and relevant to the full range of students so and satisfaction in their learning so hat the talented children can be challenged to the extend themselves full". The Carmichael repo t alludes to value of vocational, as well as, key competencies across the curriculum, with the utilisation of outside expertise to deliver the necessary training for the vocational a: pect of the educative process. Therefore a suitable administrative package that will facilitate this will need to be considered for the future if indeed these reports are to set the trend far ed icational direction in Australia I believe that one consideration would be to break the lock step progression of students through there educational years.

There are children we are teaching tha: we tend to label as either gifted, talented, normal, or, children with specific learning disabilit es.

A gifted student is one who achieves across a wide range of subjects and a talented student shows ability in at least one field of endeavou r. There are presently accelerated courses being introduced within NSW supposedly designed to c iter for those talented and gifted students called distinction counts. The prerequisite for entry to or e of these distinction courses is excellent achievement in one or more subject areas ,and that the student complete the required curriculum in at least one subject
area by the time he completes year 11.

I do not really know what a normal ch ld, but before I would try to define him, would put the questions: "Is he the student that score s the average mark, grade, assessment etc. in all his areas of study ?" or, "Is he the student that h is a healthy variety of interests, skills, development levels and goals that one would normally expect to find in different children growing up in different environments with differing backgrour ds ?"

The child with specific leaning disabili ies is also a very wide label which in no way defines what those learning disabilities are other tha i that they will invariably be different for each individual. In an educative context specific difficulty may refer to an inability to come to terms with a particular trait of a key learning area and may be solved simply by allowing the student to study at a level that is commensurate with his level of development for that subject.

A number of these students do not achieve to their perceived potential for a number of reasons which may include:

> Unrealistic expectations being placed upon him in an environment in which he can at best gain a limited achievement

No opportunity to progress further than his cohort therefore he is not necessarily challenged, becomes bored or becomes a problem child through this boredom as he attempts to regain an interest.

He is dealt with in a stereotyped fashion and is therefore expected to achieve to someone else's perception of his abilities.

He is assumed to belong to a fixed category of individuals, is lock stepped and is extended by some enrichment program

The current thinking suggests that the potential for outstanding achievement exists in a wide range of areas and there are three traits necessary to define a talented or gifted child. They are : above average ability, creativity and task commitment. Each trait requires development and stimulation in the classroom climate. While the ability and creativity may be constrained by other factors, the task commitment will be enhanced if the student is not locked to a particular system of learning but rather receives the opportunity to progress at his own rate.

The individual timetable (vertical, alternate or otherwise named), will allow-for accelerated progress through content when the student has the capacity to grasp new concepts, as well as allow students with some learning difficulties the time and opportunity to progress at a rate that is more suited to them. A talented child wishing to complete a board course by the end of year 11 would be more easily facilitated as he progresses at a rate dependent upon his own abilities. Similarly the student requiring remediation or needing to do those courses better suited to his abilities will now be able to select on his perceived need, (with advice of course). That 'normal' student with 'unusual interests' or specfic skill level will also have the opportunity to choose those options which best suit him.

The educative process must be mindfu of the Individual needs of the participants. Each institution or organisation must allow its students to develop learning contracts to help them organise their learning in a meaningful and co-operative manner. Some training in managing time, resources and accepting and deciding on priorities accepting general classroom constraints needs to be fostered and encouraged. The School staff will have to be aware of the requirements of external constraints when designing these semester courses and will need to be aware of the need to advise students without denying the student's opportunity to make an informed choice between options.

I put it that the breaking of the lock step progression of all students by allowing them to select courses either through interest, or on a prerequisite-co requisite basis will be highly advantageous to a pupil centred approach to education in the future.

Complementary to this could be the establishment of learning centres to help the children to relate to broad classroom foci, and yet select and initiate the sort of educative work they want to be involved in.

Other considerations that may be significant

Self paced progress
Flexibility of grouping
Encourage individuality
Set up resource stimulus areas
Make the children aware of any special abilities that they have

APPENDIX 3

Summary of the ideas suggested by the six groups. This summary was completed by John and given to all staff in Year 1, Term 4. This report outlines the main educational directions and 'future visions' raised by the six staff groups.

Curriculum Development - Future Visions

A Summary of Ideas Presented by the Six Staff Groups

General

1. The importance of the development of the individual student to his other full potential, especially in those areas where special interests and talents lie.

2. Avoid the marginalisation of the individual who is perceived to be different by the majority.

3. Encourage intellectual, Social, spiritual, cultural and physical growth in all individuals.

4. Curriculum must be appropriate and relevant to each individual student.

5. Different styles of pedagogy to suit individual modes of learning.

6. The need for all students to achieve at a level appropriate to their ability,

7. The provision of a comprehensive range of curriculum alternatives to adequately cater for the full: range of student ability. These include vocational, gifted, remedial as well as core programs.

8. Progression through achievement rather than mandatory hours.

9. The need for students to feel ownership of their learning and develop into self-motivated learners.

APPENDIX 4

Summary document produced by John which collated the central themes and ideas that staff put forward, through their groups. It was these items that staff ranked in order of preference during the staff curriculum meeting in Year 1, Term 4.

The Main Ideas

(These have been grouped under general headings to facilitate allocation for action)

1. Organisational Changes

* Vertical timetables
* Unitisation of courses
* Variable blocks of learning and teaching time
* Variable styles of teaching and learning days that incorporate extra and co-curricula activities
* Investigation of appropriate cycles to facilitate the above

2 Sport and other activities

* Greater choice of extra-curricular activities that include clubs, crafts, intellectual pursuits and vocational interests.
* Greater emphasis on fitness, hygiene, health and nutrition
* Reassess the needs of students for recreational and competitive sports

3 Hillcrest

4 Community Involvement

* Increased opportunity for academic, social and cultural links with other schools
* Access to alternate pathways through TAFE, TRAC, distinction courses, industry studies and work experience
* Opportunities for all students to participate in worthwhile community service
* Mentor schemes and projects that use the expertise of retired local residents, staff from [government scientific body sited locally] and [local university].

5 Pastoral Care

* Behavioural Counsellor to complement academic counselling as it currently operates
* Increased profile of pastoral care program and the role of the tutor Year advisers
* Non-punitive discipline policy involving levels Greater emphasis on the spiritual
6 Co-education

7 -Student Groupings

* Adoption of year 7 boarders by day parents
* Senior Houses
* Exclusion from Boarding House during the School day
day time study facilities

8 Human resources policy

* Professional Development Policy including personal reviews and evaluation staff morale
* Provision of retraining opportunities to enable staff to adapt to changing requirements of the profession
* Utilise staff according to their special talents
* Implement structures which give staff a feeling of empowerment and personal recognition for their service
* canvass ideas from staff forum for debate

9 Spiritual Debate

* education and religion
* education and faith
* chapel groupings

APPENDIX 5

This table, which itemised the main categories of Appendix 4, was issued to each group, during the staff curriculum meeting in Year 1, Term 4, and the results collated to discern which topic held the most support. Organisational changes were ranked first by all the six groups as being the most important topic to enhance the academic program of the School. It was at this meeting that staff decided to set up the Curriculum Committee to review models and options.

Curriculum Priorities

Use this sheet to assist your ranking of the items raised in the summary.

ITEM	YOUR RANK	YOUR GROUP'S TOTAL RANK FOR THIS ITEM	AVERAGE divide group total no. number in group
ORGANISATION CHANGES	1		1
SPORT AND OTHER EXTRA-CURRICULAR ACTIVITIES	3		4.5
HILLCREST	6		7.5
COMMUNITY INVOLVEMENT	6		7
PASTORAL CARE	5		4.5
CO-EDUCATION	4		6
BOARDING	6		5
HUMAN RESOURCE POLICY	2		3
SPIRITUAL CURRICULUM	6		5.5

APPENDIX 6

This was the first and only document published by the Curriculum Committee, as a group, which outlined how they perceived the way forward, problems that might be encountered and the timeframe for the implementation of the organisational changes. These organisational changes were referred to as 'vertical timetabling' or 'vertical semester organisation' (VSO). This report was the outcome of the first meeting of this committee held in Year 1, Term 4.

Vertical Timetabling

Perceived advantages of a vertical timetable for [the School]

*   Assists development of the individual to their full potential.

*   Transfers ownership and responsibility for educational progress to the student.

*   Enhanced curriculum flexibility and greater variety of educational pathways.

*   Greater student subject choice.

*   Increase depth of study where appropriate. Short term goals for the students: easy to their curriculum if necessary.

*   Student progression is not automatic. Students can repeat the unit or move horizontally.

*   Caters for talented students and those with learning difficulties.

*   Opportunities for accelerated progression.

*   Entry to classes based on interest, readiness and ability.

*   Organised processes for giving advice to students on subject choice. Motivation of the students higher.

*   Ability to economically run courses which normally have low numbers.

*   Students may spend more time in their preferred subject area.

*   Integration of the extra-curricula program is possible if desired.

*   Subjects are seen to have equal worth.

*   Student report profiling fits perfectly with vertical timetabling while still providing the opportunity for summary reports at Interim and Semester.

*   Students amass a more comprehensive record of achievement that also allows for more considered subject choice and career guidance.

*   Students are able to choose to learn via different modes: contract, investigation, problem solving, didactic, research, etc.

*   Teachers can offer courses which better suit their abilities, strengths and preferred style of teaching.

Areas of concern

* Time for a committee to properly investigate the proposal and still carry out part or all of their normal job.

* Appropriate and sufficient time for this committee to meet. Appropriate channels of communication to all interested bodies.

* Initial high administrative workload involved in writing unitised courses, attending inservice courses, etc while still attending to normal requirements.

* Increase demands on secretarial staff.

* Student selection procedures will be time consuming.

* Integration of the unitised program with BOS guidelines. Mechanisms to track students progress towards SC and HSC.

* Dependence on a few key personnel, particularly in timetabling.

A Decision to Proceed

To implement structural change is a relatively easy process when driven by a small team of staff who am focused on the merits of the proposed change. What is not so easy to achieve, but will constitute the deemed success or failure of the change, is the long term commitment of the entire School community, particularly a majority of staff. It will be the subject teachers and co-ordinators who will bear the brunt of the extra workload, which is inevitable in any new system.

Therefore, before we proceed any further with this investigation it is vital that the staff am aware of the full extent of the project and have an appreciation of the expected timeline to be used in the investigation and implementation phases. If a healthy majority of the staff are in favour of the idea, then we can proceed to the next phase of the investigation as outlined later in this document.

Factors that affect organisational change

The other factors that will determine the success of vertical timetabling at (the School) are:

* Support of the Headmaster and the Executive for the initial investigation.

* Sufficient funding and budgeting, in terms of materials, computer time and software, additional time given to the co-ordinator.

* Constant communication between the V.T, committee and the Headmaster, staff and parents.

* An adequate, feasible and well-structured planning timetable.

* Defined philosophy, aims and object ves.

* Approval, by the Headmaster and Planning committee, to proceed with planning and implementation subject to committee recommendations.

* Active support of Council, Executive, P and F and staff association.

* Inservice time given to all relevant staff.

* Appreciation that the implementation stage is only the beginning of the organisational change process.

PLAN OF ACTION

Term 4, 1992.

* Establish curriculum goals and priorities.

* Support of staff and Executive to proceed with initial investigation and report.

* Allocation of resources to facilitate investigation.

* Formation of a committee of staff representatives plus the Director of Studies and Head of Computing to undertake initial investigation.

* Approaches to educational consultants and experts in the field of vertical timetabling.

* Contact with schools that have successfully implemented similar changes.

* Provision made for funding of visits by committee to schools and consultancy costs.

Term 1, 1993.

* Collect and absorb information.

* Visits to five target schools who have implemented a V.T. system, two of these schools will have had the program for five to ten years.

* Initial staff inservice in the form of a curriculum conference originally planned for this year.

* School visits to be completed by Week 5

* Committee to prepare report to Plan iing Committee during Weeks 6,7 and 8.

* In Week 8 or 9, a detailed report is presented to Planning. This will include the following elements:

> Summary of research undertaken.
> Recommendation of whether V.T. sy item is appropriate for (the School).
> A number of alternate structures with recommendations.
> Revised time frame for implementaticn,
> Extent of initial implementation: Yea·s and subjects.
> Effect on the School day and suggestid cycle,
> Effect on co and extra-curricula activities, if any.
> Budget and finance considerations.
> Hardware and software requirements.
> Human resources management and inservicing requirements
> Pastoral care and guidance, particulaily for subject choice.
> Reporting and assessment systems.
> BOS implications
> Systems for record keeping.
> Marketing and publicity.

Term 2, 1993.

* Consideration by Planning Commit ee and recommendations.
* Decision by Week 4
* Report published with Planning recommendations and revised timeline.
* Staff discussions, advice to P and F and Council.
* Executive discussions
* Formal and informal discussions with staff to establish the parameters of the timeline.
* Instigate meetings with the P & F and Council to outline the curriculum and structural changes.
* Hold meetings with all H. of D. to outline the changes that will be required, the extent of initial implementation and to allocate responsibility for course restructuring and deadlines.

* Begin work on the computer softw ire modifications and hardware requirements needed to implement the new system.

Term 3, 1993.

* Plan and submit budgets that incorporate resources needed to implement changes to curriculum.
* Finalise the working parameters of the timetable. Type of cycle, length and structure of day, compulsory subjects.
* Finalise decisions concerning the lengths of subject units, which subjects to be incorporated

within the V.T., etc.
* Approach the BOS officially to gain approval for proposed changes.
* Write course outlines and unit outlines
* Negotiation of subject choice patterns in initial offerings
* Examples of faculty organisation and subject flow charts and relationships presented by co-ordinators.
* Implications to the extra-curricula program discussed.
* Effect of Centenary activities discussed.
* Design of unit report pro forma.
* Design of record management systems.

Term 4, 1993.

* All decisions concerning the operation of the V.T. system finalised.
* Draft subject handbooks written and distributed to staff, students and parents for comment.
* Software trials run.
* Survey and selection forms for each year drafted.
* Draft timetable for 1994 run through the computer program and published for comment.
* Counselling procedures for students discussed and relevant staff inserviced after Year 12 leave,
* Actual courses begin to be written.

Term 1, 1994.

* Courses continue to be written and conferenced.
* Draft timetable revised following discussion.
* Extensive counselling of students through tutor groups.
* Handbooks finalised and printed. Distribution prior to holidays.

Term 2, 1994.

* Students make subject choices for second semester
* Timetable drawn up and published
* Student assessment details finalised.
* Report format approved by Executive and discussed with staff and parents.
* Clashes resolved in student choices, staffing allocated.

Term 3, 1994.

* First phase of implementation.

APPENDICES 7A & 7B

Two examples of the information submitted to the Curriculum Committee completed by the sub-committee called the 'research group'. Each outlines those schools which have innovative curriculum policies coupled with a brie assessment of each.

School	The Entrance High School
Type	Government, comprehensive, co-ed.
Size	1,200, staff of 70.
Demography	Middle and working classes.
When?	1980 - March 1982.
Why?	Disenchantment of students with some courses, indiscipline, non-extension gifted and talented, problems w th lock-step progression, maintain standards and establish accountability, pupils non-active and non-participant in Wed sport, staff/parent desire that cultural experience have a more meaningful place in curriculum, cater for unique nature of individual, desire for child-centred education.
How?	Parity of esteem, select 7 courses per semester, 5 day week, 7x44 min per day, 7 lines repeated 5 times per week. Students could be placed in classes according to talents and ability
Funded?	?
Failure?	Teachers' Union insistence on class size and Ed Dept inflexibility on class size, teaching loads, teacher disagreement over integrated sport, onerous change-over period between semesters, need for increased guidance and clerical back-up, not all staff maintained the and momentum required to sustain Headmaster felt staff morale and school spirit would be harmed if continued along path of modification, search for solutions.
Teacher response	Initially excitement and enthusiasm but continual modifications led to disenchantment and lowering of morale.
Student response	Very positive, students staged protest when VSO discontinued.
Present position	?
Reference material	Maxwell, Tom. "Blocked at the Entrance" in Blocked at the Entrance, Entrance Publications, 1985, p138ff.
Key Personnel	Les O'Neil, Principal at time of innovation.

School	Safe Bay High School
Type	Government school, co-ed.
Size	5-600?
Demography	Coastal, rural, mixed, many from working class backgrounds.
When?	1987-1991
Why?	Offer wider range of subjects, increase motivation of the disinterested and disruptive.
How?	1986: Pastoral care stern (mixed age Teacher Advisory-Groups), vertical timetabling in Year 11 and for options in junior school. 1987: Pilot school, state vertical timetabling scheme. Vertical Timetable for years 8-10, 6 cycle, six periods per , 50 minutes duration. Six grid lines on time-table, choices made each term. Units =40 hrs, 1 term. Students took 6 units term, most mandatory. Unit maps organised across 6 stages of difficulty.
Funded?	Probably not well-resourced.
Failure?	Same reasons for WA failure: imposed from above - teachers reluctant to accept changes, politicians intervened ie mandatory hours of study in English, union interference re resourcing. Timetabling
Teacher response	Options subjects gained a higher status, feel parents do not understand UC. short-term goals increase motivation, pleased with time available for counselling students but teacher doubt own ability to counsel - need for staff training on pathways etc, and U.C. made lesson planning easier, need for computerised report system given turn around time between terms, workload had increased but enthusiasm was still high
Student response	Career aspirations largely determine unit choice, many felt they didn't get units chose, greater concern with "passing", many said they were trying harder', some found it difficult to cope with the workload of UC.
Present position	Demise of UC, a few schools still use vertical time-tabling for options, though not Safety Bay . Hope that national statements and profiles will provide a new means of students working towards objectives rather than in inflexible ways. Now has fixed pathways and fixed numbers of students in each class.
Reference material	Marsh, Colin. "Australia: Establishing a Unit Curriculum for Years 8-10 at River Valley Senior High School" in Reconceptualizing School-Based Curriculum Development, Palmer, 1990, p73 ff.
Key Personnel	Ray Harwood, Principal, Safety Bay High School.

School	Boorowa Central School
Type	Government
Size	Small, Co-ed.
Demography	Working class, rural.
When?	1987 -1989.
Why?	Declining numbers in Secondary Department, narrow options choices, need to broaden educational opportuniti es of very parochial clientele.
How?	Wednesday morning speakers and excursions then introduction of recreational and community service elec tives then term electives then VSO. Bulk of VSO in 9-10, OAS v structured in 11-12, 7 and 8 vertically organised for English only, Maths not modularized in 9-10, 8 period , 5 day cycle (2:2:2:2), 8 timet ble lines, students choose courses for two semesters in previous year.
Funded?	Disadvantaged School: Program?
Failure?	VSO only partial: English staff had new head teacher who felt meeting SC requirements might be problem under VSO but could give no strong reason for no VSO in 9-10. Maths felt course was too sequential for VSO.
Teacher response	Workload increased but little complaint as they were already accustomed change, found teaching more satisfying and students happier. There was a noticeably high level of professional commitment amongst the staff. Curriculum was broadened. Talented st idents worse off?
Student response	Reacted positively to c anges but were very conservative in subject choices. Benefits from short-term goals. Com plained when unable to take up first choice subjects. Motivation levels improved, d scipline not an issue as had already been good.
Present position	?
Reference material	Laird, D "Vertical Ser ester Organisation at Boorowa Central School"

School	Sarah Redfern High School
Type	Government Secondary School, Co-ed.
Size	1278, 650 in VSO
Demography	50% low income earners, high proportion single parent families;50% with mortgages and two parents working low retention rates; high unemployment; unsatisfactory student absenteeism.
When?	Problems 1981; planning 1984; pilot early 1985; implemented 1986; modified 1986-1989.
Why?	Concerns about discipline, absenteeism, student motivation. Escape lock-step progression, offer choice.
How?	1985: 7 line time-table with core and electives in different blocks; complete vertical integration and semesterization of electives for Years 8,9,10; parity of esteem between core and electives; unit=3x40min/cycle. 1988: 353 semester I courses, offered within 18 subjects; four levels of mastery; 12 timetable lines; 5 day cycle, 25 time blocks; students study 12 units at a time.
Funded?	State subsidies
Failure?	Change had been constant to 1989. Failure of English and Maths to use VSO. Difficulty of meeting Board requirements re hours of study required in courses. Pessimism due to teacher, especially managerial, turn-over.
Teacher response	Happy with philosophical principles; unhappy with the time-consuming management practices especially leaving class to counsel, paperwork involved, inability of computers/school management system to provide necessary data when required. Concern over clashes between elective and core units. Concern that teachers did not have appropriate strategies for mixed ability teaching
Student response	Increased as a result of VSO: variety of educational experience; range of courses; school's response to students' interest; ability to meet needs of talented; provision of short-term goals for students.
Present position	?
Reference material	Laird, David. "Report on Aspects of the Operation of the Vertically Semesterised Curriculum at Sarah Redfern High School."

School	Western Australian government School System
Type	All government schools. Secondary: central and senior high schools.
Size	Student population of WA: sec - Years 8-10.
Demography	Various.
When?	1988-approx 1991.
Why?	Beazely Report, devolution of authority to schools; to broaden curriculum, provide students with choice and flexibility; to save money
How?	Move to standards referencing, unit curriculum and vertical time-tabling; 7 core areas; 1 unit =40 weeks;units sequenced into 6 stages;400 units + theoretically available.
Funded?	State government accused by unions of trying to implement sudden change without increasing funding and resource base. Curriculum adviser and middle management cuts.
Failure?	Lack of funding; government intervention after implementation necessitating change, ie mandatory hours in core subjects; union disquiet with lack of funding - divided community, timetabling problems; teacher overload.
Teacher response	Liked: benefits to students and educational outcomes, clear unit and course outlines, increased parental involvement. Disliked: increased workload, lower moral, insurmountable time- abling restraints.
Student response	Benefits from clear objectives and course outlines; greater involvement, and choice; motivation improved; frustration with timetable that dictated rather than promoted choice - inability to study marginalised subjects.
Present position	Vertical time-tabling is virtually defunct in WA with the exception of practice in few central schools; some teachers continue to use the unit and course outlines; there is a move towards the greater use of outcomes statements and profiles; standards referencing remains.
Reference material	Giddings, G and Eraser, B. "A Survey of Teachers' Views of a Modular Curriculum Innovation", Curriculum Perspectives, Vol.12 1 April, 1992 p27ff. Soucek, V "Fundamental Conflict", Education Links 42, p4ff. Marsh, Colin. "Australia: Establishing a Unit Curriculum for Years 8-10 at River Valley Senior High School" n Reconceptualizing School-Based Curriculum Assessment, Falmer, 1990, p73 ff.
Key Personnel	Colin Marsh, Director of the Education Authority, WA (Researched River Valley High but doesn't seem very interested in UC issue now). Ray Harwood, Principal, Safety Bay Hi School ("River Valley High") (Very keen innovator). Kevin Pilkington, Deputy Principal,Katanning Senior High School (anecdotal information). Jim and John Colgan (Helped with computing and timetable aspects UC - both deputies now?)

'BLOCKED AT THE ENTRANCE'

Summary of the study by D. Cohen et al. (1985) of an attempted to introduce a Vertical Semester Organisation (V.S.O.) into The Entrance High School, (TEHS), N.S.W.

Overview

The McGowan Report (1981), outlined the debate on educational structures and curriculum issues and precipitated the move by the Headmaster of TEHS to embark on a VSO program. McGowan concluded that:

> The major problem of secondary education is that schools are places where students are bored and the teachers are bored. What we need is for students to have some control of their environment. This implies freedom to make wrong choices as part of the learning process. Choices should be possible every six months, rather than only in (say) Years 8 and 10.'

and that:

> 'The greatest barrier to better education is the timetable'

The Headmaster, with a dedicated team of three (including a teacher with extensive computing experience) , approached the parents and students of the School to outline the curriculum program on which they hoped to proceed. The response was enthusiastic and the subsequent implementation proceeded smoothly and with excitement.

However, external factors and lobbying from the N.S.W. Teachers' Union and the Department of Education resulted in many alterations to the VSO structure. The Headmaster and the staff, after a period of a year or so, decided that the final product was so far removed from their initial ideal, that a return to a traditional structure was preferable.

Reasons for the failure of the sustained implementation of a Vertical Semester Organisation

i, Teachers' Union insisting that the class size should not exceed 30. Part of the VSO structure was the need for a variety of small and large classes.

ii, The Department of Education shied from a confrontational approach with the Unions over the staffing arrangements of a VSO timetable. The Department told the Headmaster to revert to an orthodox system if he was unable to satisfy the Union's demands.

Intra-School problems of the VSO structure

i, change over period can be a potential nightmare.

ii, absenteeism or departure of key staff.

iii, need for counselling of both staff and students.

iv, timetabling problems.

v, not all staff can maintain the energy and momentum necessary to sustain change.

vi, searching for a compromise affected staff morale and the total education of the students.

It is interesting to note, in conclusion, that when the Headmaster decided that it would be best, for all concerned, to return to a more traditional timetable, the students rebelled and instigated a two-period sit in . This was eventually terminated by a representative from the Education Department.

The vertical semester organisation of the timetable, at TEHS, failed not on educational or philosophical grounds but simply due to external power-broking and politics.

APPENDIX 8

Internal summary document outlining the thoughts of John to progress so far. This report was completed after the final meeting of Year 2, Term 1 and outlined how the committee perceived the way forward. Notice the title of the curriculum initiatives has now changed from VSO to 'non-graded curriculum structure'.

Non-Graded Curriculum Structure

The change process

Diagnosis
>What are the visions?
>What are the goals

Unitised curriculum with Predominant y shorter (1 term) and yet flexible in length, achievable, self-contained units of work

For example, "Activities" may constitute one unit, even though it lasts over a whole year

Develop consequences for effort and for the lack thereof

Ownership by students of their educational programme

The possibility of unique pathways for each child

Incorporate sport and activities as accredited units

Provide a greater variety of course units defined by outcomes and profiles (cf National Curriculum) and incorporating a greater variety of pedagogical styles, including non face-to-face units.

Develop testing to enable students to bypass specified units, whilst maintaining social growth

Development of framework to allow student-developed courses and negotiable course content, as well as teacher-developed coursework

Curricular changes moderated by a curriculum ratification committee

School day planned to work from 8.3( )am until 5.3()pm

The School day/week organisation allows for teacher "flexi-time" or parts of days where the teacher is not required

Cross-creditation of units and integration of coursework

The setting up of a multi-faceted resource centre

Working within the rules and regulations of the Board of Studies of NSW

The modification of the existing support network so as to allow for these goals CO be met. Network must support teachers (inser/ice) and students (pastoral)

Is there the capacity to achieve these goals

Action

Can the resources be re-organised and are they adequate

Awareness

Do we have an image of our ideal solution

Do we know enough about what is available in terms of different theoretical or practical models

Do we know how to acquire the data and information we need

Are we satisfied with our research into the problem to date

Evaluation before trial

Have we compared different solutions to our problems

Are the available solutions realistic in erms of our underlying philosophy and resources

Are our solutions going to satisfy our goals

Can we demonstrate our solution in a meaningful and valid way

Is our solution negotiable

Are we prepared to change our ideas i the trial reveals serious flaws or there is external pressure to change it.

Evaluation

How much flexibility is there in our model

Does the innovation solve our problems and achieve our goals

Installation & Maintenance

Has the program been fully costed for both the short and long terms

Have we detailed the proposal with respect to its implementation and its maintenance

What are the problems associated with the model 's upkeep on a continuing basis

APPENDIX 9

Document written by Luke and submitted to the Coordinators body, in Year 3, Term 4, for their appraisal. The document was endorsed without revision and given directly to the Headmaster for his assessment and comment. This detailed document outlines Luke's visions for restructuring the curriculum and practical suggestions as to how the changes might be accomplished.

Submission to the (School) Faculty Coordinators

A Proposed Model for a Curriculum Structure which will Enhance the Quality of Education at (the School)

Towards a Better Learning Environment Goals

1. The creation of a learning environment where educational progress and quality is demanded by students rather than reluctantly accepted or simply rejected.

2. The creation of a learning environment where children of all abilities can achieve at the rate of which they are capable and at the level at which they are capable.

3. The creation of a learning environment which provides a greater variety of pathways to suit the needs for the full range of learning modalities found among children.

4. The creation of a learning environment which allows children and parents to determine whether or not they accelerate or broaden and removes this determination from teachers.

5. The creation of a learning environment which is flexible in its structure and able to meet changing School, child, parent and community needs without requiring repeated restructuring.

6. The creation of a learning environment which complies with the obligatory requirements of the Board of School Education.

7. The creation of a learning environment in which teachers have a continually creative role.

8. The creation of a learning environment in which closer ties to the community (TAFE, mentors, employers, parents, university, other schools) are natural, not contrived.

What are the advantages of the proposed curriculum structure?
It can achieve all of the goals set out above by:-

a)   creating an 'atmosphere of personal ownership and personal responsibility for academic progress'.

b) creating an 'incentive to learn' by:-
   i)   rewarding industry and initiative and providing a disincentive to indolence.
   ii) providing a range of educational pathways and the capacity for each pupil to design his own.
   iii) providing short courses where pupils can keep the end goal in sight and consequently maintain motivation.

iv) making it possible for every pupil who has the desire, to accelerate ie. get more done in the same time and be rewarded for the effort.

c)   creating a structure that expresses academic achievement so clearly and succinctly that every pupil, parent, teacher and school administrator knows all the time precisely where he/she is positioned with respect to the goals set

d)   achieves academic acceleration without disrupting social groupings which are often more closely related to age and stage of physical maturation than to intellectual development. But at the same time it does allow movement beyond age cohort when appropriate.

An Outline of the Proposed Curriculum Model

1. Units

The basic module of the curriculum is the unit. The unit is defined in terms of time. It has a length equivalent to 22 x 45 minute periods ie. half a term of normal class time (16.5 hours).

The time period over which one unit of work is covered may be shorter or longer than half a term.

2. Course

A course is a piece of work of any length. It is defined in terms of:-
    a) Time :   How many units.
    b) Target audience :   ie. target age cohort.
    c) National Profiles : Levels and Outcomes.
    d) Mode of Assessment : What specific assessment tools used.
    e) Pedagogy :   How it will be taught.
    f) Point Value :   How many points it is worth.

3. Point Value

a)   Every course will have point value.
b)   The point value would reflect the academic difficulty of the course and the time commitment.

4. Failure

If a pupil does not meet the Objectives of the course at the level designated in the course definition, there are several possible consequences. He may be:-

a)   Awarded a conditional pass and is allocated less than the full point value for that course but is allowed to use that course as a prerequisite for another course.

b) Awarded a FAIL and is allocated LESS than the full point value for that course but is not allowed to use that course as a prerequisite for another course. If the prerequisite is essential he could have to repeat the course or do a different equivalent course.

c) Awarded a double fail and is allocated no points and has no prerequisite entitlement.

5. Course Selection Time

Pupils would make course selections at the end of the previous year.
Selections for 1st semester courses would be irrevocable.
Selections for 2nd semester course wou d be indicative.

6. Assessment

a) The assessment of each course would be done within the course time. There would be no whole school, massed examination period.

b) The assessment policy for each course would be publicised with other course information prior to course selection time.

c) It is vital that the standard and form of assessment is consistent with time the course runs otherwise the point value of the course will be corrupted.

d) Representative samples of work reflecting the range of standards will be kept on file.

7. Reporting

At the completion of each course the participants will be issued with a certificate which sets out:-

a) the course description, objectives and level
b) the point value of the course
c) the points and grade awarded.

8. Course Design

a) Initial Concept -- may derive from:
  • individual teachers
  • faculties
  • pupils
  • pupils and teachers
  • parents
  • TAFE
  • Dept. of Education
b) Course Structure and Content developed by:

- teachers
- faculty groups
- Inter faculty groups
- Teacher and mentor
- Teacher and pupil etc.

c)   Course accredited by:

Inter Faculty Standards Committee

The Inter Faculty Standards Committee will be a standing committee with a representation from each faculty. It will be responsible for assuring the Director of Studies that any new course:

i)   complies with Board of Studies requirements.

ii)   has a point value which is appropriate to the time demands and level of cognition required to complete it.

iii) has an appropriate assessment schedule.

This committee is vital to the operation of this curriculum structure. There must be genuine priority between courses with equal point value. The emergence of courses that were perceived as cheap ie. less effort or ability required to earn the same points as other courses, would destroy the system.

9. Course Length

A course may run over any time period For example:

a)   the usual course length will be   term (9 weeks) and will be 2 unit courses (33 hours)

b)   a St John First Aid Certificate Course which runs for two days of 6.5 hours each, plus a revision night of 1'/2 hours and an exam of 2 hours ie. total hours = 16 '/z hours, will be a 1 unit course.

c)   a one semester long course designed for an individual student who works with a mentor for 1 hour each fortnight and is required to do 6 hours per fortnight researching and writing ie. total hours 45 hours. will be a 2.7 unit course.

d)   a course designed to prepare fo: and operate the Forensic Science Camp may start in August of one year and finish in May the following year and may involve 100 hours, will be a 6 unit course.

e)   a course that involved the student working 3 hours per week at McDonalds and researching and writing a report may extend over 1 semester and may be considered to be a 2 unit course.

f)   a course which extends over 1 'erm and involves one period/week face to face with a teacher and a group of other students plus prescribed reading and a written projected may be a 1 unit course.

In summary, the 'unit value' designates the time input that the course requires but it does not indicate the time period over which the course will run.

The point value of a course is not directly related to its unit value although the unit value will have a contribution to the' determination of point value.

10. Kinds of Courses

The variety of kinds of courses is restricted only by the regulations of the Board of Studies and our imagination.

a) The starting point in course design is our current syllabuses. These can be unitised into mainly 1 term long, 2 unit courses although there could be a case for some 1 unit courses.

b) Skills and knowledge currently gained in the Activities Program can often be directly related to syllabuses in various faculties eg. first aid -, Health & PD, map and compass -, Geography / Science, radio communication -, English etc. There is no reason why Courses cannot be dissected out of the Activities Program and credit points earned by students who meet the appropriate standards. Some of these courses may run over periods longer than a year.

c) TAFE courses will be evaluated and allocated a point value.

d) Experience in the work place is regarded as valuable but currently we don't give formal recognition to it. Legitimate courses may involve a combination of time in the work place plus research into related areas eg. marketing, industrial relations, public relations, management.

e) There is broad scope for courses which involve reduced teacher/pupil face to face in which students work individually and/or in groups on teacher directed in approved activities (debating, chapel choir, the School singers, sports refereeing, drama) should be recognised as legitimate courses and attract credit points.

f) Bridging courses could be designated to meet the needs to students who had decided to upgrade the standard of their work and move up to higher level courses eg. bright boy who has worked at an average level for Years 7 and 8 wants to have a go at courses with a higher academic demand (and a higher point value) but has gaps in his knowledge that need to be filled. Or boys from other schools who find 'holes' in their background may require bridging courses.

h) Remedial courses will be required. Bridging and Remedial courses will probably be half term courses.

i) Special skills courses such as touch typing and speed reading would be in demand.

j) Courses could be organised with a pupil/mentor structure. Pupils could meet with mentors or they could communicate via electronic mail and the INTERNET system. Mentor relationships should not be restricted to gifted and talented pupils although it is well suited to meet their needs. A mentor may have remedial role or may meet the needs to a pupil of average ability.

k) There are great opportunities for cross faculty courses.

11. Indicative Hours

The Board specified 'indicative hours' should not be interpreted as 'approximate hours' but as an indication of the time an average student should take to achieve the objectives of the course. The actual hours that need to be applied to a course can be much less for able and industrious students. The indicative hours requirements can be incorporated into the 'point value' for a course

since the point value reflects both time input and level of difficulty and objectives achieved. Thus the specified indicative hours for a subject can be derived by multiplying the points by a conversion factor. This will need to be done 'for office use only', in practise what will be specified to pupils is the number of credit points that must be accumulated in each subject area. A pupil must earn a specified number of credit points in each subject. Once these have been accumulated he has the option of doing more courses in that subject or avoiding that subject from then on.

12. Record Keeping

a) Each pupil will have a hard copy record of courses done and credit points won in his file of course Certificates.

b) A computer record would be set up, accessible to staff (for all records) and students (for their own records).

13. Senior School Junior School Interface

There should be a smooth transition from junior school to senior school. This can be facilitated by:

a) unitising the Year 11 HSC preliminary course. A pupil could be studying some HSC preliminary courses concurrently with Year 10 courses.

b) investigate Open Learning Courses. These could be studied as enrichment courses by pupils in Year 10 (or even Year 9) who had completed their junior school obligations.

c) Provide NON-HSC courses for less able students which begin in Years 9 and/or 10 and continue through into Years 11 and 12. Courses such as 'Building Construction' which could involve long term projects would benefit from this continuity.

14. Year 7 'Settling in' Semester

It could be argued that Year 7 students could benefit from a more stable first semester ie. own age cohort, no smorgasbord of courses available. maybe a single term would be sufficiently long.

15. Supervised Study

The creation of 'reduced face the face' courses will demand the creation of supervised study facilities for Year 7 and 10 students. Two kinds of study facility are required:

a) total quiet

b) quiet discussion.

'Study Halls' (ie. large spaces where moderately large numbers of students can sit and study) must be created and staff must be rostered to supervise them.

16. Unsupervised Study

There will be a demand for small spaces where small groups of pupils can meet and discuss, work

on projects, construct etc. etc. without supervision. The new library will go part of the way towards meeting this demand but more space will be required.

17. Computing Facilities

This will have to expand as demand increases.

18. Timetabling

The timetable can be the great inhibitor of curriculum innovation. At this stage no timetabling solutions exist but I concede that little time has been dedicated to the problem. The greatest flexibility, it seems, will be achieved by 'pinning' the timetable rather than 'blocking' it. Pinning is significantly more time consuming.

19. Are all courses ability streamed?

No. The proposed curriculum structure can accommodate both streamed and unstreamed courses. The course designers determine whether it is to cater for a specific or a broad ability range. If the course is unstreamed it may, but not necessarily, award, to individual pupils, credit points on the basis of objectives achieved and the level of cognition achieved.

Appendix A

Short Courses
Why have short courses?

1.   Students must be able to 'see' the goal - the end of the task - if they are to be able to maintain maximal effort. A year long, or even semester long course is too long to allow this.

2.   The concept of failure, or of reduced reward, is work is not performed satisfactorily is easier to accommodate if the course is short. Failure to achieve the objectives of a specific course can be   considered to be the result of an error of course choice rather than a personally damning disaster.

3.   With short courses we can rely on a pupil's personal choice to sort out the level of study that they are capable of. The cost of "slightly burned" fingers is bearable because the benefits- ie. a perception of personal ownership of educational progress - far outweighs any loss.

4.   Short courses make possible a greater range of educational pathways. This also enhances both the perception, and the reality, of pupil ownership of educational progress and pathway.

5.   Short courses make it possible to organise short remedial courses, special skills courses

and bridging courses without the need to withdraw pupils from other lessons. It also makes it possible to derive the benefits of the remediation etc. within a shorter time frame ie. a 1 unit remedial reading course (16.5 hours) at the beginning of the year will produce a student with skills that can be exercised for the remainder of the year.

6. The current system would spread that 16.5 hours over the whole year so the pupil has suffered the consequences of the lack of reading skills for the whole year. If a student is absent for a period it is possible the ensure that vital topics are not missed out on by repeating the course.

7. A new students from another school or state can 'dovetail into' the local system by choosing the suite of courses that will fill the gaps and avoiding those courses that would be repetitious of work already done.

8. Short courses make it easy to design service courses which teach basic, generally required skills which can be prerequisite for a number of other courses. eg. study skills courses, career courses, statistics, project design, use of word processor, graphs and their interpretation.

There are disadvantages inherent in courses of short duration. Some of them are:-

a. Lost time due to sporting trips, excursions, culture events etc. have a greater impact on the outcomes that can be achieved in a course.
b. There may be insufficient time o build up relationships between teacher and pupil. (But in reality the same pupils will meet the same teacher quite frequently in either parallel courses or end-on courses).
c. There is a danger that brevity may encourage the stereotyped teaching of a narrow range of subject matter (this may be a danger but it is one that can be avoided -- forewarned is forearmed.)
d. Short courses can produce a heavy time demand on assessment, recording and reporting. Structures must be designed to avoid this or the benefits of short courses will be partially negated.

Appendix B

The Credit Point System
Why apply a 'point value' to each course?

The point value is purely a simple means of communication. It allows everyone concerned to know what a pupil has achieved and how far he has to go. It identifies courses in terms of their degree of difficulty and time commitment. It allows pupils to discriminate between courses that are designed to extend and those designed to broaden. It allows pupils to know when they have completed the required time in any subject area and it allows pupils to easily know when they have completed the minimum work prescribed for the junior secondary (School Certificate)

course.

A criticism of the credit point system is that pupils who are not strong academically will always be condemned to do low score courses with a consequent depression of motivation, behaviour problems and depressed achievement. To an extent this is true. There is no way to hide individual differences BUT the point system can also help to reveal opportunities for these pupils in some areas at least.

For example the allocation of points to a course will be on the basis of level of performance expected. In academic subjects it is intellectual level that is rewarded but in some other subjects more points can be awarded to say, manipulative skills, practical problem solving, aesthetics, design etc. For example a painting or a piece of furniture is judged by appropriate criteria. Thus there will be opportunities for the less intelligent to enrol in some courses where they have an opportunity to score high points.

The existence of the point value system is likely to ensure that a greater range of appropriate courses is designed to cater for this group of pupils.

How can credit points be used to monitor and facilitate acceleration?

High standards of performance are rewarded with high point values. Hence a pupil who wishes to fully exploit his ability can choose courses with high point values. If he aims beyond his ability he will receive a reduced 'score'.

It will not be difficult to specify a point score which would be accepted as the equivalent of meeting the current School Certificate minimum requirement (SCMR)

Depending on ability and industry a student could achieve SCMR at some time between the beginning of Year 9 and the end of Year 11. For most students it would be between mid Year 9 and the end of Year 10.

The important thing about the credit point system is that it allows all concerned to track progress towards SCMR and identify when it is reached.

This knowledge of 'how they are going' enables pupils to exercise educational options. For example, Fred may want to get School Certificate requirement out of the way as quickly as possible, get the HSC done and get off to University. James may decide to work hard and get most of the SCMR points by the end of Year 9 then spend most of Year 10 exploring a range of courses for interest.

Appendix C

Accelerated Progression
Accelerated Progression - How to achieve it?

For many, the term 'acceleration progression' is a synonym for 'leap frogging' ie. vertical movement of a pupil so that they enrol in courses basically designed for an older age cohort.

"Leap frogging" has some undesirable drawbacks. This is not surprising since it was created not as a desirable end in itself but to solve the problem created by placing gifted and talented students in unstreamed classes for their own age cohort. For the few G&T students involved, leap frogging was certainly the lesser of two evils.

What problems are associated with vertical progression (leap frogging)?

1.   Danger of social problems developing if pupils move too far ahead of their social group. It is true that some G&T pupils are emotionally and socially ahead of their age cohort and would be advantaged by vertical progression but giftedness is not necessarily associated with advanced social development and if vertical progression was the only, or the main, strategy for meeting the needs of the G&T student many would be disadvantaged.

2.   Gaps in knowledge and skills will certainly be an outcome of vertical progression. For example a gifted Year 7 pupil may be able to handle the concepts involved in Year 10 mathematics or Science or Literature and may achieve high grades at that level but by jumping from Year 7 to Year 10 a number of specific topics that would have been done in Years 8 and 9 have been missed. The gaps that have been created often won't be apparent until later.

3.   Accelerated progression by vertical progression is generally available only to a select few, that is, those who have been chosen by teachers. It does not stimulate the non-performing G&T pupil to   upgrade his performance and it does absolutely nothing to encourage the whole ability spectrum of pupils to do better.

        Leap frogging should be an option. For some pupils it is the best option, or the only practicable one but it should be an option that is only rarely exercised. A more appropriate mechanism for achieving accelerated progression must facilitate the acceleration of every student who has the motivation to perform better - regardless of intellectual ability.

Achieving accelerated progression for most pupils

By "accelerated progression" I mean the achievement of more outcomes at higher levels of cognition than would have been achieved in the same time period under the current system. The right to move through the School system faster or the right to achieve more than the "average" should not be limited to a small number at the top end of the intellectual range.

The amount of acceleration achieved should depend on each pupil's motivation. It should not be restricted by structural limitations in the system or by a restricted range of course options.

A desirable curriculum structure should encourage pupils to achieve beyond the limits they would normally set for themselves.

APPENDIX 10

Summary document produced by me to outline the key stages of the change process. This was submitted to the Curriculum Committee for the last meeting of Year 2, Term 1. Members considered that they were at Stage II, level B.

NON-GRADED TIMETABLING

The Change Process

There seems to be six phases in the change process which affect [the School], namely:

I. Diagnosis

    A. What are the problems?
    B. What are our goals?
    C. Does the School have the capacity necessary to achieve these goals?
    D. Can the resources be re-organised and are they adequate?

II. Awareness

    A. Do we have an image of our ideal solution?
    B. Do we know enough about what is available in terms of different theoretical or practical models?
    C. Do we know how to acquire the data and information we need?
    D. Are we satisfied with our research into the problem to date?

III. Evaluation before the trial

    A. Have we compared different solutions to our problem?
    B. Are the available solutions realistic in terms of our underlying philosophy and resources?
    C. Are our solutions going to satisfy our goals?

IV. Trial

    A. Can we demonstrate our solution in a meaningful and valid manner?
    B. Is our solution negotiable?
    C. Are we prepared to change our ideas if the trial reveals serious flaws or there is external pressure to change it?

V. Evaluation

        A. How much flexibility is there in our model?

        B. Does the innovation solve our problems and achieve our
           goals?

VI. Installation and maintenance

        A. Has the program been fully costed for both the short
           and long term?

        B. Have we detailed the proposal with respect to its
           implementation and its maintenance?

        C. What are the problems associated with the model's
           upkeep on a continuing basis?

If we answer the above questions I would suggest that we are somewhere between phase II and III, there are parts of both of these sections which need attention if we are to proceed in a manner which is going to bring success.

I feel a practical model is a long way off and much research and discussion need to be centred in the following areas:

I.   Visits to other schools which have trialed or have been successful (in the long term) the proposed system. It seems futile to dream-up a model unless creditable alternatives have been analysed (to date we have been very parochial in our field of vision).

II.   An evaluation of our resources and their flexibility.

III.   Aspire to create at least TWO workable models which reflect our goals.

Hazards

We are in danger of losing our way unless the basic outline of the above phases of the change process are adhered to. A strategy which, from the research literature, appears to be universal.

I.   It is, apparently, inadvisable to either change the order of the steps above or try and miss some.

II.   All too often a schedule, or the desire to have a workable model, dominates the thinking. The maxim that comes through loud and clear is 'make haste slowly'.

III.   All participants to the change to an un-graded school need to be constantly informed of progress at regular intervals, if the implementation of the model is to be readily adopted. There needs to be discussion, on a staff level, of the proposed models, so that doubts can be raised and questions answered.

APPENDIX 11

Questions which formed the basis to the private interviews held in Year 3, Term 4 and Year 4, Term 1. The questions follow the main themes that evolved from the data.

Questions which formed the basis of the formal interviews

Outlined below are the general topics which form the basis of the interview questions.

General Questions and Topics

A. Organisational Structures

1.   What are the organisational structures of the School?

2.   What are the general lines of communication and the processes for the dissemination of information?

B. The Processes of change

1.   What are the factors which limit a Headmaster's ability to implement change into a school?

2.   Who are the main agents of change?

3.   What are the main areas of conflict which impede progress?

4.   How can the teachers implement curriculum changes?

C. Traditions of the School

1.   How do the cultural traditions of the school help, or hinder, the development of educational and structural changes?

D. Goals and Philosophies

1.   What are the School's aims and objectives?

2.   What are your personal goals and educational philosophies for the school?

3.   What are the difficulties in implementing personal goals, set against those of the school?

E. Power

1. Who has the power in this School?

2. How have you been affected by the misuse of power?

3. Why are the staff so reluctant to voice their opinions and concerns publicly?

4. Who makes the decisions in this School?

F. Conflict

1. How does conflict arise?

2. What aspects of the administration do you dislike or like the most?

G. Communication

1. How are ideas and decisions communicated in this School?

2. do you have an effective voice in the decision making aspects of this School?

H. Roles and leadership

1. What do you see as your main role in the School

2. What are the qualities of leadership that you look for?

APPENDIX 12

A brief outline of the respective positions of staff cited in this study. To maintain confidentiality no further information has been given.

THE LIST OF STAFF CITED IN THIS RESEARCH

CLASSROOM TEACHERS

STAFF 1;	STAFF 2;	STAFF 3;	STAFF 4;
STAFF 14;	STAFF 20;	STAFF 21;	STAFF 22;
STAFF 23;	STAFF 28;	STAFF 29;	STAFF 30.

FORMER STAFF MEMBERS

STAFF 12;	STAFF 19;	STAFF 24;	STAFF 33;
STAFF 36.			

NON-TEACHING STAFF

STAFF 13;   STAFF 34.

MIDDLE MANAGEMENT TEACHING STAFF

STAFF 5;	STAFF 6;	STAFF 7;	STAFF 8;
STAFF 9;	STAFF 10;	STAFF 15;	STAFF 16;
STAFF 17;	STAFF 25;	STAFF 26;	STAFF 31;
STAFF 35.			

SENIOR ADMINISTRATORS

STAFF 11;	STAFF 18;	STAFF 27;	STAFF 32;

CURRICULUM COMMITTEE

STAFF 7 = MATTHEW;	STAFF 35 = MARK;	STAFF 20 = SIMON
STAFF 1 = LUKE;	STAFF 27 = JOHN.	

APPENDIX 13

This appendix outlines my thoughts on the 'scientific' process. These ideas sprang from an eclectic look at the literature as to how ideas and theories evolve from data. This discussion is not pertinent to this study, per se, but gives an appreciation of my decision to embark on a qualitative rather than quantitative methodology for this research.

THE SCIENTIFIC PROCESS

Introduction

As stated in the introduction to this study my background was steeped in qualitative methodologies. The decision to attempt to assess the processes of change from a qualitative perspective was born from my inability to envision how statistical analysis, surveys and other forms of data collection pertinent to this paradigm could be employed with any degree of success. I felt that such a complex organisation, in terms of its organisational structure, human interaction and culture, could not be portrayed by such rational methodologies.

The research methodology has been outlined in Chapter 2, but the somewhat convoluted, rambling and circuitous route by which an anthropological analysis was finally decided upon is not strictly pertinent to the study of change itself and more relevant to my personal voyage of discovery rather than the general reader.

What follows is a short discussion on qualitative and quantitative methodologies and a summary of my feelings on the matter.

THE SEARCH FOR A METHODOLOGY

Qualitative data still lie in the shadow of their statistical master and a central problem with this type of research is the question of appropriate research techniques and their validity with respect to objectivity and verifiability. My background was biased towards logico-deducto approaches and I could not see how such an approach might be applied in this case study. However, before this strategy was rejected out of hand it was necessary for me to examine the scientific, rationalistic, quantitative position and come to some conclusions as to its merit in this particular humanistic study. Sociologists, I perceived, had frequently trodden the statistical path to attain their goals of 'objectivity' and 'truth' but there seemed no logical reason to do so.

There has been only limited success by statistical sociologists in producing meaningful conclusions to everyday educational dilemmas and perhaps their decision to follow this strategy has more to do with methodological ease rather than epistemological sense. For example, the literature on the study of class size in secondary schools, and its relation to the quality of teaching and learning, a basic yet fundamental issue, seemed to the researcher to expose and highlight more questions than it answered. There have been a multitude of statistical, 'empirical' studies[1] into the relationship between class size and successful learning but the results were inconclusive. A telling statement by an American teacher John Payne (1976, quoted in Glass 1982: 93) stresses the situation:

> ... every time we ask for smaller classes, my colleagues and I are told that class
> size does not affect student achievement. All teachers, on the other hand, who
> live with the problem of large classes on a day-to-day basis realise that class
> size is, actually, the main problem. This inability to prove what all experience

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[1] See Lafleur's (1975) study of class size in Australian schools or Clarke and Richel's (1977), Ryan and Greenfield's (1975) and Svensson's (1962) studies of this topic.

shows has to be the great failure of educational research.

The knowledge of the teachers themselves is often not recognised as being important because it could not be verified with 'objective facts. Their cultural knowledge, born from years of experience, is rejected, their feelings subsumed beneath that of the 'expert' on educational research. This research wanted to tap this wealth of knowledge and portray their visions of reality.

The initial judgement made in this study was not that quantitative analysis did not have a place in educational research, but rather that the change process in organisations seemed too complex for any statistical approach. If the 'class size' problem could not be solved this way then a case study which tried to deal with broader issues would have even less chance of making meaningful conclusions. The nature of the problem in this study of how and why change occurs, or does not occur, contains too many variables to be tackled by quantitative methods. The research method which might possibly enable a comprehension of the 'hows' and the 'whys' of the problem posed here requires more flexible techniques which incorporate an appreciation of the nature of human perception and reality.

However, the decision to embark upon a qualitative approach was only resolved after a lengthy analysis of the 'scientific process' to see if, in fact, the fundamental research processes were different. The outcome surprised me and the conclusion drawn was that, ontologically, they were not that different. The 'scientific' and 'anthropological' processes seem remarkably similar in that significant progress is made in quantum jumps and not incrementally or in a linear fashion. Ideas form and concepts develop in moments of vision and understanding precipitated from a long and slow pondering of the issues involved.

Polya (1954), Kuhn (1970) and lately Feyerabend (1987) have all outlined the processes by which the physical sciences have developed, arguing that progress is not made by a simple accumulation of knowledge, rather that it is marked by often quite radical paradigm shifts.

Polya (1954: 6) explains the scientific process in terms of 'plausible reasoning', a far cry from Popper's (1968) rationalistic, logical progression of ideas. Plausible reasoning, Polya suggests (ibid.: v), being:

> ... hazardous, controversial and provisional. Demonstrative reasoning penetrates the sciences just as far as mathematics does, but it is in itself incapable of yielding new knowledge about the world around us. Anything new we learn about the world involves plausible reasoning.

Such thoughts could have come straight from any manual on ethnography; observations, in themselves lead to little. It is their interpretation that is important rather than the methodology. Guessing is an under-rated skill, it is a practical, learned art and is based on intuitive knowledge. Plausible reasoning distinguishes a more reasonable guess from an unlikely one. Such conjecture becomes more credible if the consequences of the pronouncement can itself be verified.

Feyerabend tries to meld the rationalistic perspective, which has typified mathematics and the physical sciences, with a more realistic account of the processes themselves. He contrasts

Ernst Mach's (1976[1905]: 327) 'instinct' with Einstein's 'free creations of the human mind' (quoted in Feyerabend 1987: 137). Mach's 'instinct' comes close to Polya's (1954: v) 'plausible' reasoning' but both are a far cry from Einstein's (1954: 291) almost god-like, 'free creations'. Einstein, says Feyerabend (1987: 9):

> ... more than once ridiculed the concern for a 'verification of little effects', made progress in precisely this manner... the idea of a science that proceeds by logically rigorous argumentation is nothing but a dream.

It is the researcher's instinctive knowledge that leads to the new ideas and theories, a knowledge which results from a long and detailed observation of the relevant evidence (which Feyerabend calls 'empirical') and an adaptation to the events and their outcomes. The path is not linear, there are many disappointments, blind alleys, behavioural changes and reversals of opinion to which both the scientists and non-scientists are subjected with theoretical studies juxtaposed to offer new ideas and directions. This does not mean that there is no method, rather that the methodology is not clean-cut, logical or based on reason and rationality, but a reflection of the complexity of reality and human perception.

There is rigour in this seemingly chaotic process but, as Feyerabend (1987:9) states:

> ... it is a rigour that fits the situation, is complex, changes, and differs greatly from the 'objective' rigour of our ... logicians.

Science's objectivity, which is sanctified by statistical and algebraic methodologies is a legacy of its success and growth over the last four centuries, from the times of Newton and Descartes. Formal notions of objectivity and clinical mathematics and physics are used to legitimise both the outcomes of the experiments and, just as importantly, the scientific processes involved. Reason and rationality are used to cloak any procedure or idea with an unassailable validity and substance. Some sociologists still seem to be over-awed by such misconceptions.

Mintzberg (1979) and Selye (1964) are correct in concluding that whilst deduction is seen as the core of scientific research it is induction that leads to the discovery. Mintzberg (1979: 584) outlines two parts to the inductive process which reflect both Polya's and Feyerabend's ideas. Initially there is the 'detective work' which is followed by the 'creative leap':

> ... the tracking down of patterns, consistencies. One searches through a phenomenon looking for order, following one lead to another. But the process is not neat.

To this quote must also be added the concept that the researcher should also look for inconsistencies and disorder as well as order when creating the foundations for the steps to discovery. It is often documented that the discoveries are 'accidental', but that belies the truth of the matter and the endless hours of 'poking around in relevant places and 'a good dose of creativity' (Mintzberg, 1979: 585). This is what makes good research, and always will be, whatever the field of endeavour.

The scientific process, I perceive therefore, is not a rationalistic ideology, based on Descartes' 'reason', a reductionist, empirical and external dogma which thrives on objectivity and

externally divorced from the lives of the experimenters, but an experimental, imaginative and creative exercise. Science is not an orderly process of asking questions and finding their answers built on an accretion of knowledge. It is a human affair, intuitive, rigorous and reflective. Scruton (1981) is misguided as to the workings of the 'scientific approach', by confusing scientific 'objectivity', in its traditional sense, with the actual processes of Science. Feyerabend (1987: 304) is much closer to the realities of research, from whatever discipline, when he states that:

> Science and humanity must conform to conditions that can be determined independently of personal wishes. And ... that it is impossible to solve problems from afar, without participating in the activities of the people concerned.

Thus whilst this study will be qualitative, the processes which form the framework for the acquisition of knowledge will involve the 'scientific process', as outlined above. However, instead of numbers being the medium of expression, words of those involved will be used to create the description, interpretation and explanation of their reality.

Is this research model scientific?

It is suggested in this research that the methods outlined in the Chapter 2 are scientific; that is a systematic quest for knowledge in order to understand perceptions and reality. Scientific processes have been misunderstood by non-scientists and misrepresented by the scientists themselves. For whatever reason, words like 'objectivity' and 'scientific' are misused and ill-defined, in the hope that the word itself will somehow validate the methodology.

In this research the term 'science' refers to its, perhaps, original meaning, that is knowledge ascertained by observation and experimentation. And by experimentation is meant a process whereby a method of discovery is employed to test ideas and perceptions, in this case by asking questions which probe the teachers' understanding of the organisational culture and how the processes of change fit into this picture of their reality. Scientific 'objectivity' refers not to some outside, clinical and divorced conceptualisation of reality but one which recognises the fact that 'truth' is relative and that, as Mikol (1980: 19) suggests:

> ... observers viewing the same scene from the same place do not simply see the same thing and interpret what is seen differently but they may have different perceptual experience.

'Objectivity' is taken to refer not to any particular methodology, which is ontologically impossible, rather a reference to the state of mind of the researcher and the conditions of experimentation. Familiar routines and prejudices must be put to one side and view the scene as if for the first time, suggested by the concept of C.Wright Mill's 'social imagination' (1970). It should also be recognised that whilst 'social imagination' may be the goal it is almost impossible to achieve and that there is no such thing as purely, disinterested observation. Personal values, philosophies and thoughts must be espoused and documented as part of the research process. The thesis should document the most complete account possible of the motives and ideas that have led to any conclusions, so that theories are not judged in isolation from the data from which it has derived.

Wherever possible, details are given of the basis for the formulation of instinctive knowledge and how it arises. Instinctive knowledge relies on historical precepts rather than on sensations. The research must be receptive to al' organisational theories and data collection procedures, however initially bizarre, and allow theory grounded in observation to be the filter of ideas, not personal prejudices. The processes for the collection of data need definition and explanations given to the reasons for the directions taken after their analysis. The research data, themselves, should dictate the patterns of the methodology. 'There are no elements that occur in every scientific investigation but are missing elsewhere' (Feyerabend 1987: 281). Neat categories and classifications should be avoided as there is a temptation to mirror such order in what is observed.

Finally, and most importantly, once my role has been defined what will be the main focus of this research is observation and quest oning of the teacher's ideas hopes, values and goals. It is their perspectives that will constitute the analysis of the organisational dynamics. They must be allowed to form the framework from which ideas and conclusions are generated and on which my interpretations are based.

Feyerabend's (1987) book *Farewell to Reason* tries to give a framework to the processes of research without some epistemological bias. This book presents a theory of Science which reflects the problems and concerns of researchers rather than the theorists. His following summary of the dilemmas of truth and validity[2] encapsulates the framework and methods of this piece of research more than any other.

1.   The way in which scientific problems are attacked and solved depends on the circumstances in which they arise, the (formal, experimental, ideological) means available at the time and the wishes and demands of the researcher. There are no lasting boundary conditions of scientific research.

2.   The way in which problems of society and the interaction of cultures are attacked and solved also depend on the circumstances in which they arise, the means available at the time and the wishes of those dealing with them. There are no lasting boundary conditions of human action.

3.   Science and humanity must conform to conditions that can be determined independently of personal wishes and cultural circumstances.

4.   There must be a rejection of the assumption that it is possible to solve problems from afar, without participating in the activities of the people concerned.

The scientific process is thus seen as being much closer to the 'Arts' than was once thought, and vise versa. The tensions that drive the debate between qualitative and quantitative research seem to be more about grandstanding than a wish to understanding that differing research requires differing processes and methodologies. But that ontologically they belong to the same family.

There is also disagreement here with Wolcott's (1988: 187) assessment of ethnography as

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[2]   taken and adapted from Feyerabend's ideas on page 304 of his book, 'Farewell to Reason (1987)

being unable to escape from the 'iron grip of statistical methodologies'. By his own confession he is pessimistic as to the efficacy of previous educational research and tacitly acknowledges that there may be other ways of looking and asking.

From the above conditions, the philosophical, epistemological and ontological standpoints, the research methodology is constructed. It is anthropological with theory grounded in the data and emanating from it. However, my position is not that of an outsider or bystander but an active participant in the daily affairs of the School; a position which needs careful definition and clarification to preserve the validity of this research. The study follows the scientific research process in the sense that reality is not an achievable absolute and that all answers are relative to the cultural setting. The scientific process acknowledges that intuition plays an important part in the development of emerging solutions to the problems posed and that such intuition emanates from an active and questioning approach within the research environment. Anthropological techniques are used but acknowledgment is given to the notion that objectivity not an absolute but only a degree of subjectivity. It is also proposed that cultural awareness increases with the time spent within the community although it is also recognised that emotional responses, personal goals and values do cloud judgement and perspective. Theory is inextricably linked to the data and the themes which emerge evolve from an analysis of that data and that theory is developmental and not preconceived.