

**AN INVESTIGATION OF STUDENT SELF-EVALUATION AS AN
AUTHENTIC PEDAGOGICAL PRACTICE:
PROCESSES, POSSIBILITIES AND REALITIES.**

Valentina Klenowski

Thesis submitted for the degree of

**Doctor of Philosophy
in the
University of London
Institute of Education**

1995



Abstract

This thesis investigates student self-evaluation in learner-centred contexts to acquire a deeper understanding of the processes involved. The study describes, analyses and interprets student self-evaluation processes using qualitative, case study research design.

Questions of how students go about self-evaluating their experiences of learning and teaching, and how teachers attempt or succeed in integrating experiences of this type of evaluation into their teaching practice, are the focus of this study. The conditions under which these processes are promoted are explored in a secondary school in Western Australia and in a comprehensive secondary school and a Further Education College in London. The constraints that exist in the implementation of these processes are also discussed.

The impetus for this research stemmed from a lack of theory on feedback and formative assessment in the classroom. It also derived from the perceived potential of the involvement of students in the self-evaluation process as a means to improved learning outcomes. Student self-evaluation, as an authentic pedagogical practice, shifts the evaluative focus to learning itself, and the supportive processes associated with it, rather than focusing simply on the measurement of that learning. Student self-evaluation processes are therefore considered as a formative process leading to self-development. It is a process of identifying the value of the teaching and learning experience for the individual student.

This study contributes knowledge about the formative purposes of self-evaluation procedures and their links with learning. The potential exists for student self-evaluation processes to harness student ownership and control of their own work, influence the strategies they use in learning, and impact on their confidence, self-esteem and thus the quality of the learning they achieve. Student self-evaluation also supports the development of skills currently being demanded of students to succeed in the twenty first century. This research provides a rationale for sustaining current efforts to transform assessment and evaluation practices despite the antithetical context.

Acknowledgements

I am grateful to the Commonwealth Relations Trust, the Nuffield Foundation, the Conference of Director-Generals, the State Government and the Education Department of Western Australia for the national award of the Commonwealth Relations Trust Fellowship. The financial aid, the provision of facilities, materials and kind support from staff at the Nuffield Foundation and Commonwealth Relations Trust have enabled me to conduct this research.

I appreciate the help, advice and support given to me throughout the supervision and writing of this thesis. I would like to thank Professor Helen Simons for her initial encouragement, inspiration and support to proceed. I wish also to acknowledge the assistance and advice provided by Dr Louise Stoll and Professor Caroline Gipps and I am very appreciative of Dr Janet Harland's support and reassurance over the past two years.

I am thankful for the cooperation and support of staff, students and parents in the Australian secondary high school, the English Further Education college and comprehensive secondary school. They shared with me their work, ideas, experiences and time.

The staff of the Curriculum Studies Department in the University of London, Institute of Education have been exceedingly helpful and supportive. My PhD support group, my Australian colleagues and friends have also been very generous in their reassurance.

Special thanks to my family for their support and encouragement of me to pursue my press for learning.

TABLE OF CONTENTS

TITLE	1
ABSTRACT	2
ACKNOWLEDGEMENTS	3
TABLE OF CONTENTS	4
TABLE OF FIGURES	8
 Chapter One: THE CATALYST FOR ACTION	
INTRODUCTION	9
CONTEXT	10
BACKGROUND	11
IMPETUS FOR ACTION	12
RATIONALE	13
 Chapter Two: TOWARDS A DEFINITION	
INTRODUCTION	15
STUDENT SELF-EVALUATION	17
PURPOSES OF ASSESSMENT AND RELATION TO SELF-EVALUATION	18
EVALUATION AND LEARNING THEORY	21
EVALUATION IN THE LEARNING ENVIRONMENT	24
ALTERNATIVE APPROACHES	27
CLASSROOM CONDITIONS FOR STUDENT SELF-EVALUATION	33
 Chapter Three: RESEARCH METHODOLOGY	
A QUALITATIVE APPROACH	36
Context	36
Values	37
Process	37
Flexibility	38
INTEREST IN EDUCATIONAL CHANGE	38
THEORETICAL SAMPLING	39
SUBJECTS AND CONTEXT OF THE STUDY	40
SELECTION AND NEGOTIATION	41
Arboret High School	41
Grove FE College	42

Forest Comprehensive Secondary School	43
DATA SOURCES	44
DATA COLLECTION PROCESS	45
VALIDATION PROCEDURES	47
DATA ANALYSIS	48
Initial Phase	48
Intermediate Phase	48
Secondary Phase	50
Tertiary Phase	52
Final Phase	53
DATA CODING	53
CONSTRAINTS OF THE STUDY	54
ETHICS	56

Chapter Four: ARBORET HIGH SCHOOL: Student Centred-Learning

INTRODUCTION	59
AIMS	60
BROAD CONTEXT	60
Educational Reforms in Western Australia	60
National Project on the Quality of Teaching and Learning	61
SPECIFIC CONTEXT	62
School Profile	62
Learning Organisation	64
Student-Centred Learning	65
STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES	66
Portrayal of a Parent Information Evening	66
Synthesis of a Staff Development Day	68
STUDENT SELF-EVALUATION: PROCESSES IN ACTION	70
A Student-Centred Classroom	70
Year 9 Social Studies Class	75
Year 10 Social Studies Class	77
Year 9 English Class	79
SUBSTANTIVE THEMES	81
Informal and Formal Student Self-Evaluation Processes	82
Key Dimensions of the Student Self-Evaluation Process	84
Supportive Conditions for Student Self-Evaluation	89
Constraints on Student Self-Evaluation	95
LEARNING OUTCOMES	97

Chapter Five: GROVE FURTHER EDUCATION COLLEGE: Where Is The Evidence?

INTRODUCTION	100
AIMS	101
BROAD CONTEXT	102
Background	102
Principles of GNVQs	102
Assessment and Certification	104
Grading	106
SPECIFIC CONTEXT	108
College Profile	108
Nuffield Science in Practice Project	108
STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES	112
Use of GNVQ Unit Specifications at Grove	112
Application of GNVQ Assessment and Grading at Grove	117
STUDENT SELF-EVALUATION: PROCESSES IN ACTION	118
The Portfolio	119
Link Periods	120
Snapshot of a Link Period	121
Portrayal of Student Self-Evaluation	124
SUBSTANTIVE THEMES	128
Informal and Formal Student Self-Evaluation Processes	128
Key Dimensions of the Student Self-Evaluation Process	129
Supportive Conditions for Student Self-Evaluation	136
Constraints on Student Self-Evaluation	138
LEARNING OUTCOMES	143

Chapter Six: FOREST HIGH SCHOOL: Partners In Improving Learning and Teaching

INTRODUCTION	147
AIMS	147
BROAD CONTEXT	148
SPECIFIC CONTEXT	149
Schools Make A Difference (SMAD) Project	149
Student Assessment and Reporting	150
STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES	152
Flexible Learning	153

Student Self-Evaluation Processes at Forest	155
STUDENT SELF-EVALUATION: PROCESSES IN ACTION	156
Snapshot of a Technology Class	156
Snapshot of an English Class	160
Snapshot of a Religious Education Class	162
Snapshot of a Humanities Class	165
SUBSTANTIVE THEMES	166
Informal and Formal Student Self-Evaluation Processes	166
Key Dimensions of the Student Self-Evaluation Process	167
Supportive Conditions for Student Self-Evaluation	176
Constraints on Student Self-Evaluation	181
LEARNING OUTCOMES	186

Chapter Seven: SUPPORTS, CONSTRAINTS AND OUTCOMES

INTRODUCTION	191
CONDITIONS FOR STUDENT SELF-EVALUATION	193
Pedagogical Change ⁷	193
Shared Value System	194
Evaluation Ethic	196
CONSTRAINTS ON STUDENT SELF-EVALUATION	197
Time	199
Discrepant Approaches	200
The Change Process	202
LEARNING OUTCOMES	204

Chapter Eight: CONTRIBUTIONS AND CONCLUSIONS

CONTRIBUTIONS	208
Focusing Down: Practical Considerations	210
Focusing Out: A Broader Perspective on Student Self-Evaluation	216
CONCLUSIONS	221
APPENDIX	223
BIBLIOGRAPHY	226

TABLE OF FIGURES

Figure 1	Philosophical principles which underpinned the teaching and learning at Arboret High School.	63
Figure 2	Principles which underpinned student-centred learning.	66
Figure 3	Form designed and used by students for peer and self-evaluation of their work.	78
Figure 4	The grading theme of evaluation and the criteria for merit and distinction awards.	107
Figure 5	Performance criteria, range and evidence indicators for Element 5.1 (Investigate energy and motion).	113
Figure 6	A section of the unit tracking sheet for Assignment 7 Accident on the Portsmouth Road.	116
Figure 7	The toy analysis sheet.	158
Figure 8	The purposes of professional, local accountability systems and student self-evaluation compared.	208

CHAPTER ONE

THE CATALYST FOR ACTION

INTRODUCTION

In 1987 in Perth, Western Australia a major restructuring of the centralised education system took place. This involved the formation of twenty nine school districts and devolution of some responsibilities and decision-making powers to schools. The bureaucratic central office began to devolve responsibility for school financial planning, school development planning, school decision-making and school accountability. New policies, new roles, new central organisational divisions, newly formed school districts were some of the major developments which came with this restructuring effort.

Simultaneously, at the secondary school level, there was major curricular change which required schools to implement a unit or modular curriculum, designed to offer lower secondary school students increased choice and relevance in their learning.

At this time I was employed as a school development consultant, one of the newly created roles. I worked with a district superintendent and a small team of advisory teachers, at one of the new, metropolitan school districts, which was comprised of one senior college, four secondary and twenty six primary schools. In this role I was responsible for co-ordinating, organising, providing and evaluating appropriate support and professional development to assist administrators, teachers and school communities with the implementation of these major structural and curricular changes. One of the professional development programs I organised was on school self-evaluation. This was done in response to the identified need of how to conduct a school evaluation.

In creating school development plans, establishing school decision-making groups and planning for the allocation of school financial grants; how would schools demonstrate accountability to the system, the central organisation, to students, to parents and the wider community? How would the superintendent evaluate whether school development planning processes were in operation at the school level? The professional development program, *"School Self-Evaluation: Monitoring and Review"* (Simons, 1990) was developed, delivered and directed by an outside consultant in response.

It seemed too ironic to offer development in self-evaluation, to fulfil accountability needs, and then not evaluate the program. Consequently, I evaluated it (Klenowski, 1992) for two important reasons. Firstly, to discover whether participants' needs were met and secondly to fulfil an accountability function of evaluating whether I was carrying out my role in organising appropriate, timely, professional development.

In conducting this evaluation I was energised and motivated to push my learning further. I recognised the value of self-evaluation from the training program, but also from carrying out the self-evaluation myself, to demonstrate two-way accountability to participant schools and districts. I also recognised the value of critique from the way in which the professional development program was structured. These experiences inspired me to explore opportunities of using self-evaluation as a possible process to improve one's learning. If self-evaluation and the value of critique had been beneficial to me, in my role as school development consultant, to participants, and to superintendents in fulfilling their accountability roles; then could students benefit from learning about evaluation processes, critique and demonstrations of their learning as we had done in the program?

It is down this path that I now wish to travel to pursue my press for learning. Prior to doing this, however, I will provide the context and background for this research and describe the insights and discoveries of the journey thus far.

CONTEXT

School restructuring continues to challenge practitioners and educationalists in the 1990's. It is in this context that demands for demonstrations of accountability emerge (Darling-Hammond & Ascher, 1991; Lieberman, Darling-Hammond & Zuckerman, 1991). Developing a professional accountability system as part of the local strategy is a complex task, which in Western Australian schools involved the identification of responsibilities and establishment of a thoughtful set of performance indicators for evaluating school effectiveness and student progress. "Professional accountability which seeks to create practices that are client oriented and knowledge-based" (Darling-Hammond & Ascher, 1991, p. 2) involves practitioners making decisions based on the best available professional knowledge, and establishing their commitment to the client. The intellectual and ethical decisions inherent in professional accountability require educators to possess the knowledge and skills to support such responsible decision-making. School evaluation, in the context of professional, local accountability, can be defined as "... a process of conceiving, collecting and disseminating information for the purposes of informing decision-

making, ascribing value to a program and establishing public confidence in the school” (Simons, 1990).

The 1990 training program in school self-evaluation was designed to provide participants with the necessary self-evaluation skills, processes and understandings for collecting, collating, interpreting and acting on information to develop and implement accountability policy at the local level. The participants were teams of staff from schools and districts. The program aimed to develop a process for collaborative school/district self-evaluation that could be extended to other schools and districts and provide a pool of trainers, to train others. It was intended that the evaluation process would become embedded in the system as an ongoing part of the operations of schools and districts and would fulfil accountability requirements to the profession, system, school and wider community.

The significance of the school as the unit of development and analysis is now recognised, as is the need for greater reflection and ongoing evaluation at the whole school and classroom levels (Wasley, 1991; Simons, 1987). Focus on these levels has made it apparent that different student needs and school circumstances require different strategies (Lieberman et al, 1991; Huberman & Miles, 1984; Sarason, 1991).

BACKGROUND

One evaluation cannot serve all goals. In the accountability context of this research, the locus of evaluation is at the professional, local level and is therefore designed to meet local needs. The emphasis is on formative evaluation which includes evaluation of process-oriented outcomes and is rich in description of local context. The information from this evaluation process is intended to facilitate local decision-making by providing implications for immediate or future action in an efficient manner.

The evaluation of the 1990 training program identified several important factors in the acquisition of self-evaluation skills for the development of local level accountability processes. First, it was important to create a collaborative culture, one where interdependent relations were established through the development of trust and respect for colleagues across levels, from superintendent through to teacher. Key characteristics of this culture were: a supportive ethos; a resourceful learning environment and team work. The structure of the training program and involvement of teams of teachers or staff from the same institution, provided the context for the development of a collaborative culture to be extended beyond the program.

Second, establishing a culture for critique was identified as another important characteristic. An essential part of the philosophy of the training was exposure of the group to critique and the establishment of an appropriate culture for evaluation. This was achieved through the expertise of the course director, design of the program, commitment of participants, and establishment of a supportive, affirming culture in the conduct of the course.

The following values, norms and attitudes helped to nurture and maintain a culture for critique. The initial clarification of expectations was fundamental. From the outset, the expectation that participants would be required to critique each other's work was made explicit. The generation of the criteria for evaluation by the participants themselves, and their consequent adoption, seemed significant. Other factors included a learning environment which was constructive, supportive and participative, and feedback to participants which assisted both in deepening skills and promoting an environment which valued critical feedback (Klenowski, 1992).

To confront other teams with constructively critical comments was not an easy task. However, for those teams that rigorously took up the challenge the outcomes were beneficial. For example:

“The point has been made re the usefulness of critiquing as a process of learning the skills for yourselves. We found this very helpful in our project as well ... when we were critiquing your study it gave us a lot of insight into what we had done and ways that we should have done it perhaps differently” (Transcript from video recording, 1990)

Self-evaluation as a process for improvement should be continuous and ongoing (Simons, 1987). It is through the process of identifying implications for action that change at the school or district levels occurred. For participants in this program this process appeared to be rewarding and empowering: "evaluating what we have chosen, not what we have been told to evaluate."

IMPETUS FOR ACTION

The evaluation of this training program gave rise to issues which form the "frame and impetus for action" (Guba and Lincoln, 1989). Guba and Lincoln (1989) indicate that the case study report has several purposes which include "... providing thick description, giving vicarious experience, serving as a metaphoric springboard, and

challenging constructions in ways that lead to reconstructions” (p. 193). They see “[t]he report not as a series of evaluator conclusions and recommendations but a frame and an impetus for action” (p.193). Similarly, participants of the training program, saw their case study reports as “the catalyst for action.”

From my own perspective, as evaluator of the training program, the self-evaluation process has been the catalyst for action for this research. I concluded that the collective professional development of teachers, administrators, superintendents in the self-evaluation process proved to be a powerful strategy for establishing a collaborative culture, one where all levels can demonstrate their accountability in an environment which is non-threatening. The design of the program provided for spaced, experiential learning and maximum participation by all team members, at all levels, in tasks varying from development of criteria for critique, selection of a priority issue for evaluation through to demonstrations of learning by presentations of the final case study reports. Many opportunities to network, share findings, be exposed to critical feedback, tap into existing expertise and resources were valued in the process of acquiring skills and demonstrating achievement. The reflective time available, interactions with other schools and districts, opportunity to debate rigorously and ask critical questions resulted in genuine communication.

Critiquing each other's work proved to be a rich and rewarding learning experience which enabled participants to integrate their learning and demonstrate further their understanding of self-evaluation.

RATIONALE

The rationale and focus for this research will now be outlined. To date research that has been conducted into the establishment of professional, local accountability processes has focused primarily on teachers as a professional community evaluating policies and practices. Most of this work has concentrated on the whole school level. A dimension that has been missing has been the impact of such development in the classroom and involvement of students in self-evaluation.

This research starts from the premise that the involvement of students in self-evaluation is a dimension which needs to be explored. It is timely to examine closely teachers and students in classrooms and the extent to which students are provided with opportunities and skills for self-evaluation. It could be that teacher attention to student self-evaluation offers students skills and opportunities for their active involvement and increased responsibility for improved learning outcomes. Students

in demonstrating accountability for their learning by employing self-evaluation may not only improve their learning but also share the responsibility of demonstrating accountability to the wider school community.

As Sarason (1991) has indicated: "[o]ne can change curricula, standards, and a lot of other things by fiat or legislation, but if the regularities of the classroom remain unexamined and unchanged, the failure of the reforms is guaranteed" (p. 88). He further states: "[w]hatever factors, variables, and ambience are conducive for the growth, development, and self-regard of a school's staff are precisely those that are crucial to obtaining the same consequences for students in a classroom." (p.152).

The introduction of skills of self-evaluation to students may offer an added dimension to the current learning environment structure through providing students with opportunities to take increased responsibility, and a more active role, for their own learning. This research is therefore based on the assumption that there exists a need to examine how learning in the classroom is structured and that it is this dimension to teaching and learning that makes a difference.

Specifically this research is based on the assumption that students' commitment to learning is likely to be strengthened when they take more responsibility, in collaboration with their teachers, for monitoring their own progress, for evaluating their own strengths and weaknesses and for collectively devising consequent strategies for maintenance or improvement. It is also assumed that students can be perceptive about the strengths and weaknesses of each others' work and this capacity can contribute to their own self-awareness and progress in learning.

Could it be then that if students were taught the skills of self-evaluation and were delegated increased responsibility to identify for themselves the areas for improvement or development that this could contribute to progress in their own learning? Would processes of self-evaluation which value critique, with the collaborative development of criteria for evaluation by students and teacher, have any impact on student learning processes? Could students through their involvement in self-evaluation contribute, either directly or indirectly, to accountability at the local level? These are some questions which inspired this research.

CHAPTER TWO

TOWARDS A DEFINITION

INTRODUCTION

In this chapter I review the literature about the evaluation of student learning in order to define the concept of student self-evaluation and to locate my research in relation to work on this and other cognate topics. Throughout this thesis I have used the term student self-evaluation as I am attempting to bring a broader understanding of evaluation by applying it to students judging the worth of their own work.

At this point it is worth noting that the majority of the research took place in Britain where the context was not one that was propitious to exploring evaluation in this broader sense. I had to explore student self-evaluation in the context of self-assessment.

For the purposes of this thesis I use the term evaluation throughout when I am talking about student judgements about their own performance. The exceptions are when I have made reference to the literature, quoted the work of others or referred to assessment as used in a particular context.

Before embarking on an exploration of student self-evaluation I need to make explicit what I mean by this concept. To achieve a comprehensive definition assessment, measurement, evaluation and student self-evaluation are defined to highlight distinctions and to serve as a working basis for this thesis.

In the literature the term assessment is often used interchangeably with the terms measurement and evaluation (Anderson et al, 1975). In the *Encyclopaedia of Educational Evaluation* the authors make the distinction that "... assessment, used precisely, has a narrower meaning than evaluation but a broader meaning than measurement" (ibid, p. 26). They suggest that it is appropriate, in the context of evaluation studies, to limit the term assessment to the process of data collection and organisation into an interpretable form so that judgements can then be made. In this sense, assessment can be seen as an information gathering process that precedes the final decision-making stage in evaluation, for example, in deciding whether to continue, to modify or to terminate a particular program.

Measurement is the act or process of measuring and is conducted for purposes of description and comparison of individuals (Wolf, 1990). Assessment, as opposed to simple one-dimensional measurement, is multitrait-multimethod in nature, in that a number of variables are judged to be important and a number of techniques are used to assay them (such as, tests, questionnaires, interviews, ratings, unobtrusive measures). Assessment techniques can also be multisource and/or multijudge (Anderson et al, 1975). Broadfoot (1986a) defines assessment as "[a]n evaluation of a student's achievement. There are many modes of assessment, each designed to allow for the best judgement of a student's performance in a given circumstance. An assessment may be pass/fail or graded or it may consist of a verbal report" (p. 233-34).

In moving towards a clearer distinction in definition between assessment and evaluation it is useful to examine more closely the meaning of evaluation. Stake (1979) defined evaluation, in a program context, as " ... the declaration of the worth of something... We recognise there is no single determination of worth for any educational endeavour. Worth is complex and personal. Agreements as to overall worth can often be found but even among people of agreement there will be differences in criteria and standards. Part of an evaluator's responsibility is to indicate who finds merit in what, and what criteria they appear to exercise" (ibid, p. 47). He proceeds: "[t]o seek out such understandings the evaluator needs to gather subjective data and to understand then, the evaluator needs to use a disciplined introspection" (p. 47). Although this definition was offered by Stake in reference to program evaluation it can also apply to the evaluation of policy, personnel or for that matter student evaluations of teaching and their own learning (Stake, Personal Communication, 1993).

Wolf (1990) quotes Beeby's (1977) definition of evaluation: "... the systematic collection and interpretation of evidence, leading, as part of the process, to a judgement of value with a view to action" (p. 9). The view to action is highlighted and as Wolf suggests "... introduces the distinction between an understanding that results in a judgement of value with no specific reference to action and one that is deliberately undertaken for the sake of future action" (p. 9).

Each definition highlights important aspects which contribute to a richer understanding of student self-evaluation. A more precise definition will now be offered.

STUDENT SELF-EVALUATION

Student self-evaluation is concerned with evaluating or judging "the worth" of one's performance and in so doing, identifying one's strengths and weaknesses with a view to improving one's learning outcomes. The self-evaluator needs to identify explicitly what it is that he or she finds meritorious and the criteria which are used. In a developmental context the other important factor is for the self-evaluator to identify the implications for future action. This is how student self-evaluation is involved with the identification of the value of the teaching and learning experience.

The term student self-evaluation is used to emphasise that it is the students themselves who are conducting the evaluation. For such evaluation to be useful the outcomes should facilitate decision-making about action to be taken by the student. This concept of student self-evaluation then, parallels the notion of improving teaching and learning practices through teacher reflection on classroom practice (Stenhouse, 1975). The difference is that in student self-evaluation it is the student who is engaged in reflection on his or her learning processes and teaching experiences.

Definitions of evaluation (Stake, 1979; Simons, 1990) emphasise the notion of "ascribing value." Simons (1992) asserts that in the context of school self-evaluation it is important to remember " ... that the ascription of value is a process done by people, it is not embedded in evaluation instruments such as tests and questionnaires - hence the important need for discussion" (p. 7).

Wiggins (1989) concurs that evaluation is most accurate and equitable when it entails human judgement and dialogue. He states that "[w]e rely on human judges in law and in athletics because complex judgements cannot be reduced to rules if they are to be truly equitable" (ibid, p. 708). The implication here is that student self-evaluation may hold the key to unlock the door to the student's thoughts, understandings and explanations for the teacher. Through the process of self-evaluation a teacher may be able to acquire an insight into the student's response by checking out if the student's answer really means what it appears to mean. This suggests that in order to explore a student's answer, dialogue is needed, to ensure that the student is fully examined.

The importance of dialogue, interview or 'learning conversation' in the evaluation process has been recognised (Broadfoot, 1986b; Munby with Phillips and Collinson, 1989; Bachor, 1993; Barnes, 1993; Francis, 1994; Smith, 1994).

Owens and Soule (1971) believe that "involving pupils in an assessment dialogue is a simple means of providing a wealth of insight into the impact of teaching, how an individual pupil is coping with that teaching and its effect upon him [or her]. In particular, it can elicit information which must otherwise remain the exclusive property of the pupil, but which may be of vital importance to the teacher in relating to that pupil" (p. 60). Such information may be very relevant for the teacher when one considers Gipps' (1994) contention that "... different forms of assessment encourage, via their effect on teaching, different styles of learning" (p. 4).

The term student self-evaluation is used in a broader sense than student self-assessment because it refers to ascribing value to the learning experience, first in the identification of the criteria used, second by indicating what is considered meritorious and third by outlining the implications for future action. In the classroom context this is a developmental process which is supported and managed together with the teacher and the student's peers. This self-evaluative process is also broader than self-assessment in that students are engaged in more than just ascribing grades. They evaluate their performance against identified criteria (either self-identified or identified in collaboration with teacher and peers, or given) and are measuring progress against targets that have been self-selected or negotiated with the teacher.

To elaborate further on the broader meaning of student self-evaluation, as used in this thesis, it is useful to examine the purposes and types of assessment and how they relate to the self-evaluation process.

PURPOSES OF ASSESSMENT AND RELATION TO SELF-EVALUATION

In reviewing the literature discussions of assessment and self-assessment tended to predominate. The broader notion of student self-evaluation did not feature so obviously in the review. The clarification of how student self-evaluation is broader in meaning than assessment and self-assessment can be made from a consideration of assessment types and purposes. There are elements of formative assessment which come close to the formative and developmental purposes of student self-evaluation and these will now be elucidated.

Goldstein (1993) asserts that "[i]f an assessment system is to prosper and if it is to retain intellectual integrity, it must avoid claiming that it can serve conflicting

aims simultaneously" (p. 33). The general purposes of assessment which have been identified from the literature include: selection, certification, curriculum improvement, diagnosis of learning needs, student motivation, accountability and self-development. Willis (1992) suggests: "[w]hatever the intention, assessment information is designed to tell us something about learning" (p. 1). Student self-evaluation is linked to learning in that the student reflects on his or her performance from an improvement perspective. It is in this learning context of self-development and self-improvement that the distinction between summative and formative approaches becomes pertinent. This distinction was originally made by Scriven (1967).

Summative assessment focuses on outcomes at the end of the period of instruction rather than aspects of the process of teaching and learning. The aims of summative assessment are to determine the extent to which students have attained learning objectives and to allocate grades or certification accordingly. An example of summative assessment is the terminal written exam (Bloom et al, 1971; Gordon & Lawton, 1984; Sadler, 1989; Rea-Dickins & Germaine, 1991; Williams, 1992).

Formative assessment is concerned with gathering data to determine the extent to which students have mastered specific aspects of learning with the aim of improving subsequent performance. Formative assessment occurs during the process not when the process is assumed to be completed. It is developmental and aims to identify areas for remediation so that subsequent instruction and study can be improved (Bloom et al, 1971; Gordon & Lawton, 1984; Sadler, 1989; Rea-Dickins & Germaine, 1991; Williams, 1992). It is in this latter context of formative assessment that the relation with student self-evaluation can best be understood. This is because the formative process, of the identification of areas for improvement and development, underpins student self-evaluation.

The formative purposes of self-improvement and self-development align with the purposes of student self-evaluation. For example, formative assessment has also been called diagnostic (Bloom, B. S. et al., 1981; Black & Broadfoot, 1982) because it aims to identify learning difficulties for remediation purposes. The distinction between continuous and formative assessment is that: "[c]ontinuous assessment is recorded for purposes of accreditation or certification whereas formative assessment is used solely with a view to helping learners improve their future performances" (Williams, 1992, p. 32). Williams emphasises that "...the use of continuous assessment can sometimes frustrate the productive use of

formative assessment" (p. 32). This is an argument related to the nature of feedback and is supported by Sadler (1989). The role of feedback and its impact is as important in student self-evaluation as it is in formative assessment and self-assessment.

Feedback is defined by Sadler as "information about how successfully something has been or is being done" (p. 120). He quotes Ramaprasad's (1983) definition which describes feedback in terms of its effect rather than its informational content: "... information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way." Sadler stresses the importance of feedback as information that "... *is used to alter the gap* " (p. 121). He states that feedback is not particularly effective if it is recorded simply or if it is too deeply coded (such as a grade) to lead to appropriate action. The grade diverts attention from fundamental judgements and the criteria for making them. A grade may therefore be counterproductive for formative purposes and this explains why "continuous assessment" can frustrate the aims of formative assessment: "Students need more than summary grades if they are to develop expertise intelligently" (Sadler, 1989, p. 121). Maxwell (1993) highlights another important consideration: "[f]eedback is only relevant if students have an opportunity to improve as a consequence" (p. 288). These latter points relate to the broader notion of student self-evaluation. That is, feedback in the self-evaluation process needs to be more than summary grades and when implications for action have been identified an opportunity for such action to be carried out needs to happen. It is in this way that feedback and an opportunity to improve relate to self-evaluation and the formative purpose of self-development.

Tunstall and Gipps (in press) have developed an assessment typology of teacher feedback which incorporates the following types. First there are two positive types of rewarding (A1) and approving (B1) feedback and two achievement feedback types of specifying attainment (C1) and constructing achievement (D1). The two negative types of feedback are punishing (A2) and disapproving (B2) and the two improvement types are specifying improvements (C2) and constructing the way forward (D2). They are located along a continuum which ranges from evaluative (positive and negative) through to descriptive (achievement and improvement).

The feedback types in Tunstall and Gipps' assessment typology which are most relevant to the study of student self-evaluation include: constructing achievement

(D1) and constructing the way forward (D2). This is because in constructing achievement feedback "the child's 'voice' is heard more than in any other type of feedback. The child moves from recipient to active participator ... " and the teacher assumes "the role of 'facilitator' rather than 'provider' or 'judge'." This is true for feedback which is constructing the way forward as it is carried out in a way "that seems to give the child responsibility. ... instead of telling the child what to do to improve, the development tends to be identified mutually in such a way that the child seems to have space to make choices for him/herself ... it is much more a feeling of mutual appraisal of development".

Gardner (1992) sees the purposes of evaluation of student performance as: "... the obtaining of information about the skills and potentials of individuals, with the dual goals of providing useful feedback to the individuals and useful data to the surrounding community" (p. 90). This definition serves as a useful link to a discussion of the locus of accountability in relation to formative assessment and student self-evaluation. As presented in chapter one, evaluation conducted at the local, professional level which is designed to meet local needs will often result in formative, process-oriented findings. This evaluative information facilitates decision making processes by indicating implications for action in a timely manner (though not necessarily employing formal reporting strategies).

Evaluation for self-improvement and self-development is conducted at the local, professional, classroom level. The locus of accountability is at this level and therefore the purposes of student self-evaluation include: increased responsibility for self-evaluation and learning, the negotiation of learning targets, intrinsic motivation, implementation of self-reflective and self-corrective processes, evaluation of peer's and own work, interdependent relations and use of class or school based formal and informal self-evaluation methods.

EVALUATION AND LEARNING THEORY

Any discussion of self-evaluation as an authentic pedagogic practice must be located in a broader framework of learning theory for as Crooks (1988) in Willis (1992) indicates: "[a]ssessment plays an active role in the teaching/learning process" (p. 1). There are many who would agree (Broadfoot, 1986b, Broadfoot, 1988; Munby, 1989; Glaser, 1990; Stiggins, 1992; McClure & Walters, 1992; Wilson, 1992; Barnes, 1993; Linn, 1993). Gipps (1994) calls for "educational assessment for the twenty first century [to] be based on our best current understanding of theories of learning" (p. 4).

Willis (1992) illustrates that evaluation is an interactive activity between students and teacher that can play an important role in feedback to improve the quality of future learning. She quotes West (1988) who "makes it clear that assessment is not a separate phase of learning but an integral part of the teaching and learning process where teaching strategies typically involve the following: 'reflection on what learning has occurred, generating student questions, interpretive discussions, extended wait-time, concept maps, reflective thinking.' To encourage the quality learning that is likely to be associated with such strategies it is necessary to include such diverse activities in assessment tasks. In addition, marking should permit judgements about the level of qualitative change that has occurred" (p. 12-13). Such approaches to evaluation have emerged from a 'constructivist' view of student learning. However, as Ramsden (1988) in Willis (1992) indicates "implicit in much of our current assessment theory and practice is a view of learners as absorbers of quantities of provided wisdom" (p. 14).

In the constructivist perspective students actively construct their meaning from their learning experiences as opposed to recalling facts. They actively make sense of new knowledge and decide how to integrate it with previously held concepts and information. Confrey (1990) indicates that given this perspective children will change beliefs only when "persuaded that the ideas are no longer effective or that another alternative is preferable". He goes on to suggest that "the teacher must form an adequate model of the students' ways of viewing an idea and s/he then must assist the student in restructuring those views to be more adequate from the students' and from the teacher's perspective" (p. 109). The role of self-evaluation and the need for dialogue to enhance the learning process become increasingly evident. For as Confrey (ibid.) asserts "we gain a measure of access to that constructive process through reflection" (p.109) and "teachers ... must ... be prepared for the likelihood that the students' constructions will not coincide with their own, and encourage the students' expression of their beliefs so that teachers come to understand student beliefs. Teachers then must be prepared to revise their own beliefs or to negotiate with the student to find a mutually acceptable alternative ... " (p. 112).

Guba and Lincoln (1989) define the constructivist paradigm as a "series of mental constructions, ... only interactivity can lead to a construction or its subsequent reconstruction" (p. 88). The 'hermeneutic methodology' (Guba and Lincoln, 1989) used during this interaction and joint construction involves

processes of iteration, analysis, critique, reiteration and reanalysis. If teachers involve students in self-evaluation, and then discuss their self-evaluations with them, the opportunity may exist for students to reconstruct or jointly construct meaning through these interactions.

Vygotsky's theory is also useful in this context of evaluation which both reflects and supports learning. He explained the development of cognitive processes in terms of highly interactive, social experiences. Shepard (1992) suggests Vygotsky developed assessment techniques based on focused intervention so that teachers could learn from how students responded to instruction. The concept of focused intervention relates to Vygotsky's zone of proximal development which is quoted in Gipps (1994) as "the gap between the actual developmental level as shown by the child's unaided performance and her potential level as shown by her performance under adult guidance or in collaboration with more capable peers" (p. 27).

The significance of engaging students in the processes of self-evaluation is best understood from this theoretical perspective on learning. By providing students with the opportunity to evaluate their own learning, discussing students' self-evaluation with them and then getting them to plan future action; teachers are able to ratchet up student learning as they provide feedback which supports and impacts on their learning. Rosenshine and Meister (1994) have highlighted Vygotsky's belief that "one does not have to wait until a child is developmentally ready before beginning instruction" (p. 483) and in Vygotsky's own words "what the child is able to do in collaboration today he [or she] will be able to do independently tomorrow" (Rieber & Carton, 1987, p. 211). "Teaching must lead development forward" (Vygotsky in Davydov, 1995, p. 18). The impact of theories of guided learning are evident in practices such as scaffolding and reciprocal teaching both of which have important implications for student self-evaluation and how it is implemented in classrooms.

Scaffolding is the process of support and guidance offered to help the student achieve at the higher level. This concept has been extended to evaluation of student performance "to move beyond static assessment of what is known to ... a more interactive model [which] look[s] at learning potential" (Gipps, 1994, p. 27). Shepard's (1992) version of guided assessment called 'dynamic assessment' is also based on Vygotskian theory. "The assessment-teaching effort begins with a pretest of what the child already knows. The assessor-teacher has to judge where the child is ready to begin. Then the child and teacher work cooperatively

with the teacher providing increasingly more specific hints until the child learns to solve the assessment problems of certain type independently. ... Thus children learn in the course of being assessed" (p. 309).

'Reciprocal teaching' is another teaching strategy based on theories of guided learning designed to teach students cognitive strategies (Rosenshine and Meister, 1994). Specific, concrete, comprehension-fostering strategies which students can apply to the reading of new text are the focus of the teaching which takes place primarily in the context of a dialogue between the teacher and the students. As Palincsar (1986) states "[d]ialogue plays a critical role in providing scaffolded instruction" (in Rosenshine and Meister, 1994, p. 516).

Active engagement, interaction between teacher and student to improve the quality of learning and for construction of meaning, helping the student to new developmental levels, guided learning, the role of dialogue are all important considerations for student self-evaluation as an authentic pedagogic process. Evaluation in the classroom context can assume a supportive role in the learning process; it is to this notion that the review now turns.

EVALUATION IN THE LEARNING ENVIRONMENT

The development of a level of mastery in a particular skill or body of knowledge has criteria or standards of success built into it and therefore no matter what human endeavour is being pursued evaluation will be an integral feature of that learning process. Self-evaluation becomes relevant to indicate the relationship between the individual's abilities and aspirations in particular areas and his or her present level of attainment. Evaluation is also an integral part of teaching and learning (Bloom, Hastings & Madaus, 1971). Evaluation provides the teacher with important information for the purposes of planning courses, managing learning tasks and modifying classroom practice to improve the learning outcomes for students.

Students need to develop a range of skills, such as those for evaluation, to learn to succeed in a complex and rapidly changing world. In Bloom's (1956) *Taxonomy of Educational Objectives* evaluation is located in the last category of objectives in the cognitive domain. Implicit in this placement is the assumption that objectives in this category require some competence in all previous categories: knowledge, comprehension, application, analysis and synthesis. "Evaluation goes beyond these in that the student is presumably required to

make judgements about something he [or she] knows, analyses, synthesises and so forth on the basis of criteria which can be made explicit" (Bloom et al, 1971, p. 205).

"The thinking curriculum calls for recognition that all real learning involves thinking, that thinking ability can be nurtured and cultivated in everyone, and that the entire educational program must be reconceived and revitalised so that thinking pervades students' lives beginning in kindergarten" (Resnick and Resnick, 1992, p. 41). Darling-Hammond (1991) refers to research by Resnick (1987) and Sternberg (1985) on human learning which suggests that current evaluation methods fail to measure students' higher order thinking skills or provide opportunities for students to develop capacities to perform real-world tasks. She refers to trends in the United States where scores since 1970 on basic skills tests have been increasing while scores on higher order thinking skills have been declining in all subject areas.

Resnick and Resnick (1992) argue that the kinds of mental processes associated with thinking are not restricted to an advanced or 'higher order' stage of mental development. They state: "[t]he traditional view that the basics can be taught as routine skills, with thinking and reasoning to follow later, can no longer guide our educational practice" (p. 39). Similarly, in advocating the development of skills for student self-evaluation I am suggesting that students need to be given the opportunity to acquire skills for making judgements a lot earlier than suggested by Bloom's hierarchy. In the process of self-evaluation the student becomes the object of his or her own thoughts, that is, engages in introspection. This requires the skills of analysis and synthesis which are acquired as a consequence of engaging in this process, not by waiting to master one level before moving on to the next. Therefore teachers need to give students practical experience in critique, such as evaluating whether one's piece of writing meets the specified criteria or evaluating how one's artistic performance could be improved. For it is through engaging in such practical activity of critique, evaluation and analysis, that the student comes to understand and acquires knowledge of self-evaluation processes.

Understanding for the student is accomplished through the student's active involvement. By engaging students in these tasks the teacher is giving the student practical opportunities to acquire the understanding and is allowing the student to develop evaluation skills. The teacher is also establishing credibility and value in the task itself. However, at some point the teacher needs to make

explicit what the student has done by engaging in that particular self-evaluative task.

Evaluation is an educative activity (Cronbach, 1982) and student self-evaluation offers the opportunity for students to be actively engaged in thinking about how they are progressing with their learning and what practical action they can take. By evaluating one's progress the student is assuming greater responsibility for the drive, pacing, sequencing and reinforcement necessary in the learning process. In the passive learning mode it is the instructor who assumes control over the learning process. Such active engagement in the learning process relates to the concept of metacognition which refers to thinking about thinking and includes a variety of self-awareness processes. Shepard (1992) asserts that metacognition is important because it is "the development of metacognitive abilities ... that is more likely to make an individual more intelligent" (p. 314). Gipps (1994) emphasises that "access to metacognitive processes for pupils can come from a process of guided or negotiated self-assessment, in which the pupil gains awareness of his or her own learning strategies and efficiency" (p. 28).

This type of practical engagement by students in their own learning processes is supported by Hirst (1983), Lieberman (1991), Sarason (1991), Gardner (1983, 1991, 1992,) Darling-Hammond (1991) and Resnick and Resnick (1992). For example, at a lecture in December, 1993 at The Institute of Education, University of London, Hirst expressed his belief that "... knowledge and understanding are first and foremost practical ... we first learn to do things in a practical sense ... and that ... human knowledge is based on practical satisfaction of wants and desires." Thus in order to satisfy the desire to succeed in a particular field or to attain a level of mastery the skills of self-evaluation will be needed. These are best attained in a practical learning setting rather than through the teacher using a didactic approach of passing on propositional knowledge about self-evaluation to students. Hirst (1983) in outlining the failings of his educational theory "... the rationalist account, which I now wish to reject explicitly ..." refers to the fact that "[n]ot all forms of intelligent 'know how' presuppose that the person possesses the 'know that' of the relevant principles" (p. 10). He goes on to indicate that "[r]ational action can, and in certain respects must, precede rational principles, the latter being the result of reflection on rational actions" (p. 10).

Sarason (1991) has argued strongly for increased students' responsibility for their learning. He suggests that "[t]he responsibility of the teacher, a derivative of his

or her power, is awesome. It is also unrealistic and unjustified. ... It is unjustified because it rests on the unexamined and invalid assumption that there are not alternative and productive ways of structuring the social context in which learning can occur, ways that give more responsibility to students" (p. 91). He adds: "... alternatives to present practice have to be tried" (p. 95).

One way in which present practice can be changed is to engage students in self-evaluative practices which are designed to increase their responsibility for their own learning and which provide them with self-evaluative skills for life-long learning.

ALTERNATIVE APPROACHES

A growing dissatisfaction with current forms of evaluation of student achievement is evident (Wiggins, 1989; Sadler, 1989; Wigginton, 1991; Williams, 1992; Smith & Stevenson, 1992; Gardner, 1992; Resnick and Resnick, 1992; Brandes & Ginnis, 1992; Gifford & O'Connor, 1994; Gipps, 1994). For instance, in the introduction to *Expanding Student Assessment*, Perrone (1991) writes "... what typically passes for student evaluation, what fills the public discourse, is an over-arching model of assessment, built around a host of standardized tests, that doesn't get particularly close to student learning and doesn't provide teachers with much information of consequence" (p. vii). In this context student evaluation is characterised by a bureaucratic evaluation system which is focused on the measurement of learning for accountability purposes and tends to be inimical to the thinking curriculum (Resnick and Resnick, 1992).

"The use of school leaving examinations for purposes of selection is at the heart of the dissatisfaction with conventional forms of assessment" (Williams, 1992, p. 47). The use of such a single indicator of achievement as a basis for making significant decisions is questionable. One of the main criticisms of conventional examinations is their concentration on the evaluation of the 'product' rather than of the 'process' of learning. Here product refers to the outcomes, the conclusions, findings, facts, information, discoveries, conclusions or disclosures of learning. The process refers to the methods, procedures, manners of thinking, techniques, strategies or skills involved in establishing the relevant facts or in determining the relevant conclusions (Williams, 1992).

Another criticism of conventional forms of evaluation is their dependence on a norm-based system which means that every student is evaluated in relation to the

norms of achievement of others doing the same examination. Therefore a proportion of students will inevitably fail. In Britain and Australia, at the school level there is a gradual shift from norm-referenced to criterion-referenced evaluation systems.

Gardner (1983) identified the existence of seven different mental faculties: language; logical-mathematical analysis; spatial representation; musical analysis; bodily kinesthetic thinking and two forms of personal understanding - interpersonal knowledge and intra-personal knowledge. Given this concept of multiple intelligences, Gardner (1992) calls for evaluation that is "intelligence-fair." Current formal testing in the United States evaluates primarily the linguistic and logical-mathematical faculties rather than an individual's skills in the other areas. In discussing the principal features of a new approach to evaluation for learning Gardner asserts: "... it is the proper mission of educated individuals as well as those who are under their charge to engage in regular and appropriate reflection on their goals, the various means to achieve them, their success (or lack thereof) in achieving these goals, and the implications of the assessment for re-thinking goals or procedures" (ibid, p. 90). He stresses the need for there to be the development of methods and measures which aid in regular, systematic, and useful evaluation of learning and believes that it ought to be part of the natural learning environment. The value of developing students skills in self-evaluation is realised.

Common criticisms of student evaluation based on standardised tests include:

- the dominating impact of external assessments for accountability purposes on teaching and learning in schools is to the detriment of other purposes for educational assessment;
- that teachers teach to the test;
- the focus of classroom instruction is narrowed with the tests driving the curriculum;
- that standardised tests assess lower level thinking skills and that instruction in higher level thinking and learning skills is reduced (Lieberman, 1991; Darling-Hammond, 1991);
- the emphasis on achievement and test results suggests that the purpose of education is only for academic achievement rather than for social, intellectual, emotional and physical development of young people (Suarez & Gottovi, 1992);
- that such tests do not provide teachers with adequate information regarding student learning and;

- that meaningful feedback for student progress is lacking from the results of such tests.

Additional problems of singular, standardised testing systems include the mismatch in some cases of the content of these tests with the curriculum of particular schools. In addition, it is questionable whether standardised achievement tests measure the quality of schools or teachers or the quality of the education a student has received (Suarez & Gottovi, 1992; Goldstein, 1993). Agreement with this notion that raw scores only tell part of the story is also apparent in Britain where Lofty (1993) has quoted Bates who states that such scores "... tell nothing of other features of a school's life. They take no account of pupils with special educational needs or of those who have done better than could reasonably have been expected of them" (Lofty, 1993, p. 53). Goldstein (1993) adds "Not only are comparisons that are based upon raw results misleading and potentially unfair, we should not expect even value-added analyses to provide definitive comparisons" (p. 34).

In the British context Lofty (1993) claims that what many teachers had feared is coming to pass. That is "... a test-driven curriculum without significant attention to teachers' assessments of student progress through portfolios, presentations, or authentic tasks. Many teachers believe that students themselves need to take an active part in setting, monitoring and internalising standards. The increasing pressure for national testing of student performance, however, has removed them from self-evaluation and negotiating grades, and it has reduced the incentives for group work and collaborative learning" (Lofty, 1993, p. 53).

Another criticism is that some tests make the complex simple. This is often achieved by dividing the learning to be tested into isolated and simplistic tasks which do not allow the students to practice the true test of performance or the test of putting all the elements together. This approach of breaking tasks down into their components leads to tests that assess only artificially isolated 'outcomes' and provide no hope of stimulating genuine intellectual progress. As a result, teaching to such tests becomes mechanical, static and disengaging (Wiggins, 1989, p. 706). Resnick and Resnick (1992) illustrate how the decomposability assumption has been seriously challenged by cognitive research and therefore argue that complex competencies cannot be defined by listing all of their components. They state: "... efforts to assess thinking and problem-solving abilities by identifying separate components of those abilities and testing them independently will interfere with effectively teaching such abilities.

Assessing separate components will encourage exercises in which isolated components are practiced. But since the components do not add up to thinking and problem solving, students who practice only the components are unlikely to learn to do real problem solving or interpretive thinking" (p. 43). They suggest that it cannot be expected that a skill component can be taught in one context and be applied automatically in another. They conclude that "... we cannot validly assess a competence in a context very different from the context in which it is practiced or used" (ibid, p. 43).

Critique of the utility of tests in measuring what students actually know has stimulated much debate and a move toward 'alternative, authentic assessment' approaches (Wiggins, 1989, 1991; Newmann, 1991; Harnisch & Mabry, 1993; Brandt, 1992; Zessoules & Gardner, 1991). In defining the term authentic assessments, Wiggins (1989) identifies the need for true tests of intellectual ability to require the performance of exemplary tasks, to replicate the challenges and standards of performance that typically face community leaders, designers or historians and to be responsive to individual students and to school contexts: "Within reasonable and reachable limits, a real test replicates the authentic intellectual challenges facing a person in the field" (Wiggins, 1989, p. 706).

The purpose of alternative forms of student evaluation are first to make evaluation more varied and comprehensive by the use of multiple methods for the demonstration of learning. These evaluation strategies, present "ill-structured problems" that require students to think analytically and demonstrate their proficiency as they would in real-life contexts (Archbald & Newmann, 1988). Ill-structured problems are chosen because, as Wiggins (1989) has elaborated, when he quotes Frederiksen (1984), "[m]ost of the important problems one faces are ill-structured, as are all the really important social, political, and scientific problems ... But ill-structured problems are not found in standardised achievement tests Efficient tests tend to drive out less efficient tests, leaving many important abilities untested and untaught ... We need a much broader conception of what a test is" (Wiggins, 1989, p. 706). Gardner (1992) agrees, he believes that evaluation for learning "... should recognize the existence of different intelligences and of diverse cognitive and stylistic profiles, and it should ... possess an understanding of those features which characterize creative individuals in different domains. ...[it] should acknowledge the effects of context on performance and provide the most appropriate contexts in which to assess competences ..." (p. 89).

Authentic evaluation approaches incorporate oral, practical, performance-based presentations or exhibitions including, essay examinations, research projects, scientific experiments. Also included are portfolios of students' work, group projects that require analysis, investigation, experimentation, cooperation and written, oral or graphic presentation of findings. The evaluation process requires students to respond to critique from peers or external examiners, thus opportunities to learn, to think through and defend their views exist.

A further purpose of alternative approaches to evaluation, is to make evaluation fairer by reducing the dependence on performance in a single terminal examination as the only determinant of student achievement. Another aim is to make evaluation more precise and accurate by making explicit the abilities being considered. This helps to encompass a wider range of abilities and facilitate the recording of achievement.

The use of teacher or school-based evaluation is another alternative. As greater authority is devolved to schools, it may be possible for them to be less reliant on hierarchical regulation to define their processes. It is in this context that locally developed indicators may prove to be more effective educationally. Wiggins (1991) agrees and indicates that one kind of testing does not fit all. He urges the use of multiple judges and refers to the Australian context where local student work forms part of the state system of evaluation of student performance (See Maxwell, 1994). Wiggins (1991) encourages the development of local level evaluation systems and the discontinuation of high-stakes generic testing that is not linked to local curriculum. Others, such as Smith and Stevenson (1992), agree and suggest that "... assessment data should be collected, formally and informally, and used by teachers and administrators to set learning goals and priorities and to build on what students already know" (p. 79).

A link between standard setting and evaluation exists if, as Wiggins (1989) suggests, the test offers the students a genuine intellectual challenge and if teachers are involved in designing the test. For evaluation to set standards, teachers must ask different questions, they must decide what the actual performances are that they want students to be good at, and if "... serious about having students display thoughtful control over ideas, one single performance is inadequate" (Wiggins, 1989, p. 706). Glaser (1988) quoted by Wiggins suggests that we should view tests as "assessments of enablement". That is "[w]e should assess knowledge in terms of its constructive use for further learning ... [we should assess reading ability] in a way that takes into account that the purpose of

learning to read is to enable [students] to learn from reading. All tests should involve students in the actual challenges, standards, and habits needed for success in the academic disciplines or in the workplace: conducting original research, analysing the research of others in the service of one's research, arguing critically, and synthesising divergent viewpoints." (Wiggins, 1989, p. 706).

Student self-evaluation provides the opportunity for students to identify their strengths and weaknesses. Gardner (1992) argues that the identification of the student's strengths and weaknesses must happen at an early point to impact on educational planning given the discovery of diverse cognitive styles and the implications of this. Currently the evaluation that occurs for selection purposes more often detects weaknesses rather than strengths. Through carrying out self-evaluation students are clarifying for themselves what they can and cannot do. In this sense they are conducting 'assessments of enablement'. It is also through the process of identifying the implications for action that students are developing life skills or skills appropriate for life-long learning.

Articulating the criteria for student self-evaluative purposes is an important step towards the attainment of the goal of improved student learning outcomes because these criteria make explicit for the student what is required to perform or produce a quality piece of work. In the ten years of research that Stiggins (Spandel & Stiggins, 1989) conducted in the field of classroom evaluation he noted that teachers evaluate at least 25 per cent of every instructional day, but the criteria and data that teachers use are usually stored in their heads. Stiggins urges teachers to ask themselves what they really value, for instance in good writing, and to put those criteria on paper especially for students to see.

Teachers in evaluating the quality of the student's work must therefore identify the criteria for quality performance and be able to judge the student's work accordingly. As Sadler (1989) has indicated "[t]he indispensable conditions for improvement are that the student comes to hold a concept of quality roughly similar to that held by the teacher, is able to monitor continuously the quality of what is being produced *during the act of production itself*, and has a repertoire of alternative moves or strategies from which to draw at any given point. ... students have to be able to judge the quality of what they are producing and be able to regulate what they are doing during the doing of it" (Sadler, 1989, p. 121).

Wiggins (1989) also acknowledges the importance of identifying the criteria for judging the performance of students. He indicates that in a truly authentic and criterion-referenced education time is spent teaching and testing the student's ability to understand and internalise the criteria of genuine competence. He suggests that what is harmful about current teaching and testing for students is that what is reinforced is the notion that the presentation of the right answers by merely going through the motions is evidence of one's ability. He stresses that "[c]oaches, who know that their hardest and most important job is to raise the standards and expectations of their students, rarely make the same mistake" (Wiggins, 1989, p. 706). When the teacher, together with the students, identify the criteria for evaluation there exists the opportunity to raise the standards of achievement through the clarification of expectations and the explicit statement of performance to be achieved.

Teachers also need models and criteria for what good performance evaluation looks like so that way they can compare their own efforts with these models and standards.

It is claimed that alternative approaches to evaluation help teachers and students to evaluate what they really do, they serve as expressive tools for students and they are highly motivating (Archbald & Newmann, 1988).Sizer (1990) points out that they are as much inspiration as measurement: "Giving kids a really good target is the best way to teach them ... And if the goal is cast in an interesting way, you greatly increase the chances of their achieving it (Sizer, 1990, p. 1).

How do students acquire these skills and what classroom practices and conditions sustain such learning? A review of the literature has identified the following classroom conditions and necessary teaching practices.

CLASSROOM CONDITIONS FOR STUDENT SELF-EVALUATION

From the readings on authentic assessment and student evaluation, there is broad agreement on the characteristics of classroom practice likely to be supportive for the development of student self-evaluation (McKenzie & Harrold, 1989; Wigginton, 1989; Wigginton, 1991; Sarason, 1991; McClure & Walters, 1992; Brandes & Ginnis, 1992).

These characteristics include classroom teaching practice where:

- evaluation is seen as part of the educative process;

- instruction integrates evaluation and learning;
- students are provided with the skills to evaluate their work and are given opportunities to use them;
- teachers encourage students to take responsibility for their learning to become independent learners;
- students are encouraged to take responsibility for judging their own growth and development and are provided with the opportunity to develop plans of action for improvement purposes;
- students are asked to judge, to refine their work over time using self-evaluation and document their development, for example, by the use of process folios;
- student self-evaluation occurs via portfolio review, by student or as a class using a critique format, face-to-face, or by teacher and student;
- teachers share their power with their students through a student-centred approach to teaching and learning;
- the student-teacher relationship involves nurturing, mutual respect and trust;
- school administrators are key advocates for self-evaluation and;
- teachers are action researchers or reflective practitioners.

Nuttall (1987) has identified the following conditions related to assessment tasks that seem to be elaborative and which are pertinent to a discussion of the learning environment which supports self-evaluation:

- "a) tasks that are concrete and within the experience of the individual;
- b) tasks that are presented clearly;
- c) tasks that are perceived as relevant to the current concerns of the student;
- d) conditions that are not unduly threatening, something that is helped by a good relationship between assessor and the student" (p. 116).

This latter point is highlighted by others, for example Moll (1992) in quoting Vygotsky states "the *context* in which the interaction [between student and teacher] occurs is of crucial importance" (p. 156) and "[t]his interdependence of adult and child is central to a Vygotskian analysis of instruction" (p. 11).

In this chapter the evaluation of student performance literature has been examined and student self-evaluation has been defined: "evaluating or judging the worth of one's performance according to agreed criteria and in so doing identifying one's strengths and weaknesses with a view to improving one's learning outcomes".

A concern which arises from an examination of the literature on the evaluation of student learning is the lack of research on formative classroom assessment (Black, 1986; Broadfoot, 1986b; Williams, 1992; Torrance, 1993; Gipps, 1994) and the lack of "a general theory of feedback and formative assessment in complex learning settings" (Sadler, 1989, p. 119). What also becomes clear is "... the power of assessment to affect and shape teaching and learning in the classroom" (Zessoules & Gardner, 1991, p. 48). Given that formative processes underpin student self-evaluation there is a need to examine the processes and outcomes of such alternative forms of evaluation of learning. Owens and Soule (1971) would agree and have called for more research in the areas of "... assessment for diagnosis, pupil self-assessment and teacher-based evaluation techniques ..." (p. 65). This thesis therefore focuses on student self-evaluation as an authentic pedagogic process which may further the understanding and concept of formative evaluative processes.

To discover the potential of student self-evaluation as an alternative form of evaluation of student performance I examined closely the processes in action in classroom contexts. Such examination may help to amplify understanding of the realities faced by students and teachers and to illustrate the kinds of preparation and development needed to meet the challenges. After a consideration of the methodology used, this research focuses on classroom contexts where teachers are engaged in implementing student self-evaluation.

CHAPTER THREE

RESEARCH METHODOLOGY

This thesis investigates how students can contribute to the search for more meaningful ways of evaluating learning outcomes and teaching experiences. The specific purpose is to describe, analyse and interpret the processes involved in student self-evaluation using qualitative, case study research design. A deeper understanding of self-evaluation as used by students in their learning, and experience of teaching, is intended.

A QUALITATIVE APPROACH

This study is exploratory in nature to generate some understanding of the complexity of the student self-evaluative processes; the constraints which emerge in their implementation, the roles of student and teacher and the outcomes for both. The research questions focus on how students go about self-evaluating their learning and teaching experiences and how teachers integrate this type of evaluation into their teaching practice. Questions of whether student self-evaluation is valued by teachers and students and the conditions which promote these processes are explored. These questions together with the exploratory nature of the research deal with "... operational links which need to be traced over time" (Yin, 1989, p. 18). A multiple case study design of three varying systems over a six month time frame for each case was chosen.

Stake (1994) indicates that "... some case studies are qualitative studies, some are not" (p. 236). The decision to conduct case studies where qualitative inquiry dominates was influenced by the research questions which focus on processes and values. Case study research recognises the importance of context (Cronbach, 1975; Yin, 1989), focuses on the elucidation of values (Geertz, 1973) and enables in-depth analysis of the heart of process. This type of research design allows for flexibility which was needed to take account of the dynamics of the process. Such flexibility would not have been possible with a preordinate design.

Context

Prolonged engagement and persistent observation took place so that a view of the context in its natural state could be constructed. Extended involvement in the field occurred, to overcome the effects of misinformation, to discover constructions and understand the context's culture (Guba & Lincoln, 1989).

It was important to perceive student self-evaluation processes as a unified experience. A complete picture of the roles, responsibilities, processes, outcomes, their integration and the contextual conditions, was required to understand the experience as comprehensively and as closely as possible to the participants' experiences. To achieve these aims I immersed myself in the school context, by being present at staff and parent meetings, staff professional development days and by observing teachers and students in classrooms. This way it was possible to see student self-evaluation in action and in context, and to comprehend the processes.

A case study approach enabled the documentation of complex interactions between levels (district or local authority, school, classroom, teacher and student) and their individual circumstances. The complexities of the school and classroom environments, school culture and the constraints encountered were also portrayed.

Values

I talked with and interviewed students, teachers, administrators and parents to acquire an insight into the values that they felt underpinned the teaching and learning practices associated with student self-evaluation. This collection of interpretative data helped to elucidate the significance of the school and classroom cultural contexts in which the roles and responsibilities associated with self-evaluation were established. This approach gave teachers and students the opportunity to reflect, then to share their views which helped to establish a more accurate portrayal of their values associated with these processes. It was feasible, as Merriam (1991) has described, for qualitative research to assist with "...[the] understand[ing of] how all the parts work together to form a whole" (p. 16).

One of the research questions was concerned with whether teachers and students value student self-evaluation and how they came to have these opinions and understandings. There is little that is known about the field of student self-evaluation and in conducting this study it was intended to shed light on how teachers and students came to have their perceived views, influences on them, sequences, and contextualisation.

Process

Student self-evaluation can best be understood by knowing what this process involves: what conditions or qualities are required; what values students and teachers ascribe to this process; how it is implemented, and how it impacts on learning and teaching practice.

Qualitative analysis made it practicable to collect fine-grained data about these processes and the subtle dynamics of a complex and sensitive variety. It was possible to find out why and how decisions were made and individuals' feelings about these decisions. The research process was interactive so that students, teachers, administrators and parents could share their understandings of student self-evaluation and their perceptions of its impact on learning and teaching. I spent time with students and teachers recording their learning and teaching circumstances, interviewing them, analysing lessons and experiences of self-evaluation. The data I collected reflected their actual voices and provided insights into their experiences of the process. Such descriptive data portrayed more accurately the complexity of the role of student as self-evaluator.

Flexibility

The responsive nature of case study research design enabled follow-up to the evolving discussion which emerged from the unstructured interviews. Some of the questions asked, resulted in replies that could not be anticipated, but having heard those responses it was possible to question the informant further. Such flexibility allowed exploration and pursuit of new ideas and themes as they arose.

Rather than focusing on the production of generalisations it is the single instance which is significant (Simons, 1987) in case study research. In studying student self-evaluation processes it was not intended to generalise; rather the aim was to achieve a greater understanding. This study was designed to optimise that understanding from each case, not to generalise beyond (Stake, 1994). Generalisations within each case were possible and were related to particular processes or outcomes which were supported by specific practices or by identified factors within the teaching and learning environment.

As Stake (1994) has indicated, it is possible to carry on more than one case study simultaneously but each case study is a concentrated inquiry into a single case. Contexts where students were engaged in self-evaluation and where teachers integrated such practice into their teaching were chosen. It was possible to identify certain qualities in each system or within the boundaries of each case.

INTEREST IN EDUCATIONAL CHANGE

A further reason for choosing case study methodology was my interest in educational change for as Simons (1987) has indicated "... individuals operating in highly

idiosyncratic situations themselves appreciate descriptions of individual instances in action because they can relate them to their own experiences" (p. 73).

A case study approach offers opportunities to understand day-to-day complexities of school life and to generate findings that more closely connect with experiences of practitioners. My interest in educational change leads me to support those who argue that "... research must lie closer to the heart of actual practice if we are to have any possibility of reforming schools" (Wasley, 1991, p. 185) and that a complete understanding of schooling requires more detailed descriptions of what actually transpires in classrooms and schools (Hargreaves, 1994; Fullan, 1993; Fullan & Hargreaves, 1991; Lieberman et al., 1991; Simons, 1987).

From my earlier research (Klenowski, 1992) it is also clear that teachers value opportunities to examine educational questions in depth. The reality of the teachers' day often does not permit engagement in thoughtful reflection about practice nor to deliberate professional issues with colleagues. I wanted to conduct research that enabled teachers to reflect, engage in, and contribute to intellectual discussion. Their particular insights regarding current teaching and learning strategies, and processes of student self-evaluation, were captured.

THEORETICAL SAMPLING

Two kinds of sampling were used in this research for the following reasons. First, purposive sampling (Patton, 1980), which occurred before data were gathered, was adopted to ensure that the case sites selected were appropriate for exploration of the research aims. The second type of sampling which was chosen was theoretical sampling because it is "[a] process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his [her] data and decides what data to collect next and where to find them, in order to develop his [her] theory as it emerges" (Glaser & Strauss, 1967, p 45). Each case was chosen specifically in a non-random manner and was developed in an increasingly focused way as the research progressed. The sharpening of the focus occurred as data were analysed and substantive themes identified.

The process of data collection was controlled by the emerging theory. As data were collected and theoretical constructs evolved it was considered important to also look at variants or "discrepant cases" (Merriam, 1991, p. 51). The aim was to make sure that the range of possible theoretical cases were included to collect information so that disconfirming possibilities were also considered.

Glaser and Strauss (1967) believe that "[a] single case can indicate a general conceptual category or property, a few more cases can confirm the indication" (p 30). It was decided to conduct three case studies, not for purposes of generalisation but to confirm the indication of emergent conceptual properties. Each site shared the following common elements: teachers adopting learner-centred or flexible learning approaches; students provided with opportunities to self-evaluate; and sites where changes to current practice were being piloted.

SUBJECTS AND CONTEXT OF THE STUDY

Each case is a "bounded system" (Smith, 1980) and in choosing appropriate contexts for this multiple case study the data collection process was bounded by the following parameter: schools or colleges engaged in learner-centred or flexible learning where students were provided with the opportunities to self-evaluate.

Instances where students were engaged in self-evaluation were observed and their thoughts about these processes recorded and analysed. Their self-evaluations were examined and discussed with both students and teachers. The benefits, tensions, outcomes (process and product) from both students' and teachers' perspectives, were recorded. Parents' views were also sought in two of the case studies.

Was there any attention to the development of skills or concepts of self-evaluation? How did teachers integrate self-evaluation into their teaching? What outcomes for students were achieved from the perspectives of teachers, students and members of the school community? Examination of processes in action and discussion with key informants took place to explore such questions.

Classroom settings where teachers provided opportunities for students to develop skills in self-evaluation were selected so that observation, examination of related documentation and interview of those involved could take place. These contexts included a college which was piloting the General National Vocational Qualifications and two schools engaged in implementing flexible or learner-centred teaching and learning practices.

The first case study focused on student self-evaluation in the context of student-centred learning in an Australian country high school where teachers were encouraged to rethink their teaching practice.

The second case study was located in a suburban London college where lecturers were piloting the General National Vocational Qualification (GNVQ) Advanced Science Course and were using an integrated teacher team approach. Students were encouraged to take responsibility for their learning through the learner-centred teaching approach adopted by teaching staff, and were encouraged to self-evaluate.

The final case study was situated in a London inner city high school where some teachers were engaged in adopting more flexible learning strategies. Some students were provided with opportunities to self-evaluate through the policies adopted.

SELECTION AND NEGOTIATION

The selection and negotiation of access to each site involved varying procedures and obligations. These are now outlined for each case study site.

Arboret High School

As a senior policy officer of the then Western Australian Ministry of Education, I negotiated permission to conduct the research. This was granted on the basis that a report (Klenowski, 1994) would be written.

Arboret High School was selected not only because it was involved in the National Project on the Quality of Teaching and Learning (NPQTL) but more importantly because it was implementing a student-centred approach to teaching and learning. It was assumed that some students would have opportunities to self-evaluate. This school was further along the continuum of student-centred learning than all the others in the state. This combination of factors led me to contact the principal of the high school to negotiate entry.

At the outset I made it clear that I would not wish to use any data collected by means of interviews, observation or document analysis that had not been cleared by the individuals involved. The principal expressed an interest in the research proposal and discussed it with the staff. Subsequently, I attended the school during first term of February 1993. As this school is located in the south of Western Australia, approximately 300 kilometres from the city of Perth, I negotiated to stay for the week. This meant that I was able to observe the school in action. I was given the opportunity to describe the research and the implications for staff. I adopted the role of "limited observer" (Ely et al., 1991, p 45) at the professional development day of first term, district, parent and staff meetings and in some classes where teachers were implementing student-centred learning. I observed classes of mathematics, social studies and English.

Another week-long visit at the commencement of second term April 1993 was negotiated and during this visit the research became more focused. As videotaping was used, permission to video record classes was negotiated with the principal and staff. The conditions were that the school would be given copies of the video tapes for their own use and only teachers who felt comfortable with the video in the classroom would be involved. There was not one refusal. After an analysis of the documents and data collected from the previous visit, I decided to concentrate on teachers of English and social studies where a student-centred approach was more apparent. Observations and video recordings were also made in classes of mathematics, technology, the arts and science. The decision to stay for one week was made on the basis that the previous week long visit had enabled the collection of rich data, the logistics of distance from the city centre, and the assumption that by the end of the week students would be more familiar with the video in the classroom and would possibly ignore its presence.

Another visit at the district level was made in July 1993 when further discussions occurred with the principals of the district, superintendent and education officer. A conference about student-centred learning was held in Perth in August, 1993 which provided another opportunity to interview staff and discuss emergent issues with the principal. Contact with the school continued via fax, phone or mail for the remainder of 1993 and throughout 1994 when I had moved to London.

Grove FE College

In London, through my research interest, I became aware of the Nuffield Science in Practice project. In November 1993 I met with the Nuffield project manager who indicated the important role student self-evaluation had in the award of the Advanced GNVQ. He saw "student self-evaluation as a powerful strategy for improvement" (Interview, 1994). I met two other managers and was subsequently invited to attend meetings for those piloting the Advanced Science GNVQ. At the first of these I met the coordinators from 13 of the sites and was given the opportunity to discuss this study. I made arrangements to visit three.

During February 1994 I visited these three GNVQ centres plus two not involved in the Nuffield Science in Practice GNVQ project. I observed five lessons and interviewed each of the five coordinators and nine of their students. I was unsure whether the case study would be focused on one or a number of colleges because at this stage there was some uncertainty as to whether concentration on one college would provide sufficient breadth for understanding self-evaluation processes involved in the GNVQ pilot program. The decision to concentrate on one college and study

self-evaluation in depth in this context was made in March 1994 after interviewing the coordinator from Grove FE college. I analysed the data collected in February from the various centres, and considered the idiosyncratic features of each site and logistics of travel. I concluded that this college would meet the aims of this study and shared certain common characteristics with Arboret High School. Both sites provided students with opportunities to self-evaluate, were engaged in pilot programs and adopting student-centred learning.

I negotiated entry to the centre with the course coordinator and team members. I wanted to conduct research that would allow these educationalists, who were engaged and appeared committed to the GNVQ pilot program, to contribute to the research by capturing their ideas and reflections on student self-evaluation. I negotiated to clear all data with the individuals involved. I agreed to share all interview transcripts and findings and to attend meetings, observe lessons and sessions with students only when it was convenient to staff, students and the teaching program.

From February to June 1994, six visits to the college were made. Lessons, review sessions and link periods were observed. The coordinator was interviewed, face-to-face and via telephone on several occasions. Two further face-to-face interviews were conducted with another team member in February and again in June. On each visit to the college discussions or interviews with students were held. Four were interviewed in February and 11 in June. As these students are post-16, it was decided not to interview their parents. The concentration was on the students: their views, their experiences and their understandings of self-evaluation.

The decision to concentrate on student self-evaluation in action in the GNVQ context resulted in observations of review sessions and link periods (so named because all lecturers and students are together at this time). The interviews conducted with students revolved around their experiences of self-evaluation and procedures developed to support the processes. Document analyses at school level centred on students' portfolios and assignments.

Forest Comprehensive Secondary School

Some teachers at Forest Comprehensive Secondary School were involved in a school improvement project entitled: Schools Make A Difference (SMAD). One of the aims of this project was to introduce flexible learning and to increase students' responsibility for learning. Flexible learning incorporates a range of learning activities, environments and resources. A key element in flexible modes of teaching

and learning is student evaluation. Here was an opportunity to examine student self-evaluation as implemented by teachers in the light of flexible learning.

The decision to approach the Headteacher to negotiate access to the school was made on the basis that there were additional innovative programs happening which offered students and staff opportunities to use and develop self-evaluation. For example, some teachers were involved in the trial of an action planning program for year 10/11 students. The opportunity to study the connection between student self-evaluation and the identification of implications for action was possible. Student self-evaluation processes were also integrated in the student's compilation of a Record of Achievement (RoA).

I met the Forest School coordinator of the SMAD project and discussed with her the possibility of conducting research with some teachers who were involved in the project. She indicated that four teachers (herself, the technology teacher, Religious Education and English teachers) might all be willing. I then made an appointment with the Headteacher to seek his approval. I discussed the ethical issues of preserving anonymity and confidentiality and ensuring that the research would not interrupt the learning program for students. I agreed to keep him informed of my visits and involvement with teachers, students and parents.

From December 9, 1993 to April 1995 I had continuous contact with the school. I visited the school on 25 separate occasions: to observe lessons (15); interview parents at a parental consultation evening; observe a staff INSET day; interview some staff members (6) and students (27).

DATA SOURCES

Multiple data sources were selected: interviews; direct observation; documents; records and physical artefacts (Yin, 1989). Students, teachers, administrators and parents were the main informants via unstructured interviews.

Student self-evaluation in action was observed in classroom teaching practice, formal presentations by students, exhibitions of learning and self and peer critiques. Attendance at staff meetings, parent nights, professional development days and informal interactions between students, teachers, students and teachers, were all sources of data.

The examination and analysis of documents was considered important to corroborate and augment evidence from the other sources. Evidence included official government or department policy statements, reports or handbooks, school or college documentation such as evaluation policies, development plans, handbooks, documents produced by teachers (lesson plans, work programs, work sheets provided for the students, evaluation sheets and forms relevant to student self-evaluation). Physical artefacts such as student work, student self-evaluations, assignments, profiles, records of achievement and portfolios were closely examined.

A case study data base consisting of field notes, documents, narratives, transcriptions and observations was developed for each study (See pages 48-50). In the case reports reference was made to the relevant sections of the data base with acknowledgement of specific documents, interviews or observations. Attention was given to establishing this "chain of evidence" (Yin, 1989, p. 103) so that conclusions could be traced back to relevant sections of the case study data base, details regarding evidence, and circumstances under which data were collected, were recorded.

DATA COLLECTION PROCESS

The main methods of data collection were observation, interview and document analysis. These were supplemented where relevant with analysis of video recordings (in the Arboret case study only), expanded field notes and log entries. The log is a "... chronological record of what we learn and our insights about how we learn it" (Ely et al., 1991, p. 69).

The role of active participant was not assumed, rather observations were conducted from the "limited observer" (ibid, p. 45) perspective. This approach required observation of teachers and students in classroom or school contexts using direct observation, recording of observational data continuously rather than selectively. As researcher, I was aware of the impact of my presence in these contexts in that "the very act of observing can alter what is being observed ... even at our most unintrusive, we influence the very phenomenon we are studying" (ibid, p. 47). This impact was recorded and included in the analysis of the data gained from observations.

Through observation it was possible to build a continuous record of ongoing events such as classroom events, interactions and informal remarks (Parlett & Hamilton, 1977). Additional direct observations of tutorial sessions, staff and parent meetings, staff development days took place using a recording of all critical incidents. In all observations conducted, interpretive comments were added to field notes and to the

log. These comments related to both apparent and latent features of the situations observed. On-site observations involved recording discussions with and between students, teachers and administrators for additional information which was not gained from interviews.

Discovering the views of informants was crucial to understanding student self-evaluation. The use of unstructured interviewing facilitated responsiveness to the informants' thoughts and opinions and allowed the collection of more detailed information. The purpose was to establish a total, detailed picture of the complex situation. Students, teachers, administrators and parents were asked the following emergent questions about student self-evaluation: what they understood the concept to mean, their perceptions of what was involved, what they thought of the process; whether they attached any value to the process, how it was used, and whether it impacted on teaching or learning.

The unstructured interview process made it possible to recognise whether student self-evaluation was influential, what was valued, respondents' opinions and what interrelationships existed. Initially, questions were open-ended and discursive to match the exploratory nature of the case study design. Questions were more progressively focused towards the end of the data collection phase as substantive themes began to emerge. All responses were recorded and transcribed (either fully or partially), and supplemented with field notes. In-depth interviews were needed to appreciate comprehensively the dynamics, complexity and sensitivity of the issues involved in the open-ended strategies incorporated for dealing with student self-evaluation.

A further method of data collection was the analysis of documentary evidence. From each site documents were collected, labelled, dated, filed and analysed. Each document was then analysed to help contextualise the particular case. For example, the analysis of the departmental or governmental policies and school or college documentation provided the necessary background information for each case. Documentary evidence also assisted in providing a focus for generating issues to be explored and the interpretation of each individual case within its own particular national and local policy contexts.

VALIDATION PROCEDURES

Careful attention was given to procedures and methods which would minimise bias. In the processes of data collection, analysis and reporting, systematic cross checks were made.

In an attempt to maintain objectivity and to protect against bias I used 'the triangle of reflexivity' (Green, Seminar, 1994) which involved making my expectations explicit. This process involves three steps. First, I wrote a detailed account of what I considered to be an ideal situation for student self-evaluation if all was working well. I included information and theory I had acquired from conducting the literature review. Second, after identifying the research focus, I wrote a realistic account of what I expected to find in the field, and finally I was able to compare these accounts with what I actually found. This process enabled me at the outset to clarify my expectations which helped define the ways I structured my observations. I was clearer about the need to observe student self-evaluation in action and to collect information from the students', as well as the teachers', perspectives.

Multiple data sources and methods of collection were a requirement of the data collection procedures chosen. These consisted of interviews, observations and collection of relevant documentation from each site. The validity of the case studies was established further by triangulation of data through the use of these multiple sources of evidence, use of multiple methods of data collection and use of multiple perspectives on student self-evaluation. A focus on common issues across cases and the use of consistent procedures in data collection across sites also occurred.

To minimise bias during the data collection phase, observational data were recorded continuously rather than selectively, field notes, observations and interviews were written up within forty-eight hours and clarification of any confusing or contradictory information was then sought.

Key informants were asked to review the drafts of the case study relevant to their school or college. This was how informants could ensure that the student self-evaluation processes relevant to their school or college had been accurately portrayed. Another colleague in that school or college also read the case study to determine the accuracy from a third perspective and this was how cross validation of interpretations took place. Iterative interpretation within cases by me and informants was another ongoing process to assist the validation procedures.

In the three case studies direct quotations from interviews, from recorded comments in field notes, and from interview and video transcriptions, were given rather than reported interpretatively. The informants' voices were able to speak for themselves.

DATA ANALYSIS

Analysis occurred on a continuous basis throughout the duration of the research. For descriptive and analytical purposes the various phases are identified.

The initial phase involved the analysis of relevant literature, formulation of research questions and underpinning arguments, selection of methodology, sites and data sources and collection procedures. The intermediate phase of data analysis occurred during the compilation of a data base for each case study. This involved the ordering of data from the various source categories. The secondary phase required a rereading, of all data and analyses, to construct portrayals, snapshots, accounts and descriptions of student self-evaluation in its development and in action. A detailed examination of all data (particularly documents) was conducted during this phase to provide relevant contextual features for each site. The tertiary phase of analysis involved the use of the constant comparative method (Glaser and Strauss, 1967) during the rereading and analysis of each case study data base. This resulted in the identification of emergent themes or categories and their related properties for each case. The final phase occurred across the three cases when the analysis of each individual case was completed.

Initial Phase

At the outset, the review of the student self-evaluation literature helped to order data, and analysis started with the selection of the research questions for study. The choice of methodology, identification of the sites, choice of data sources and data collection procedures were further stages of analysis. Once I had collected the data in Australia I found myself cycling back and forth between thinking about that existing data and the data to be collected in two very different case sites in London. Data collection and analysis were interwoven in this way (Miles & Huberman, 1984).

Intermediate Phase

During the intermediate phase of data analysis, within the individual case analysis, the following strategies were employed. All data were assembled into a data base for each case. For the study of Arboret High the data base was assembled chronologically into source categories of: field notes (130 pages); transcriptions of

interviews (61 pages) and documents (27 separate items). The transcripts consisted of all data from interviews of three teachers, two administrators, four parents and 16 students, and partial transcriptions of a further teacher interview, and 14 student interviews. The taped interviews which had not been entirely transcribed were listened to several times, notes were taken and some comments recorded. Twelve hours of video recorded lessons, a staff development day and a parent meeting also form part of the data base. Field notes were supplemented and additional notes were taken during the many viewings of these video recordings. The documents comprised those collected from the school as well as from the NPQTL project. Notes were taken during classroom observations, attendance at meetings (staff and parent), at interviews, viewings and hearings of taped evidence. A report was written for the school and the Ministry of Education. It included information synthesised from interview data, analysis of documents and observations from attendance at lessons and meetings. A log was maintained which included observations, memos and insights about what was being learned. This too formed part of the data base.

The assemblage of the data base for Grove College involved continuous data collection from November 1993 through to October 1994. Documents were collected on each visit to the college. Additional information was also collected from meetings of the Nuffield Science in Practice project, from the National Council for Vocational Education, from the *Laser* Advisory Council¹ and the awarding bodies. This latter collection of information also continued over time and all data gathered were dated, labelled, filed, studied and analysed. On each occasion that contact was made with the college, the Nuffield Science in Practice project, the National Council for Vocational Education or the *Laser* Advisory Council, written notes were taken and expanded in the log. Field notes were written up and incorporated. Interviews were conducted with students (15), lecturers (2), managers of the Nuffield Science in Practice project (3), an evaluator of the specifications for the Science GNVQ, a GNVQ principal research and development advisor, and an assessor trainer. All participants (23) gave their permission for the interviews to be recorded, which were transcribed and analysed. The interviews were loosely structured around issues related to student self-evaluation in the GNVQ context. The interviewees were encouraged to share their understandings and perceptions about processes and issues. Interviews were double-checked with subjects to check that transcripts portrayed accurately their observations. Their changes were incorporated. For validation

¹ The *Laser* Advisory Council is an independent educational charity dedicated to supporting and developing education and training. It provides GNVQ support workshops and assessor training for centres offering the award.



purposes I asked staff members to check for factual accuracy the portrayals and snapshots (of collaborative curriculum development, the assessment process and use of the grading criteria and link periods). These suggestions for change were also included.

The data base for the case study of Forest School was compiled in 1994 and consisted of over 200 pages of transcribed interviews and notes of observations. Interviews were conducted with eight year 11 students, 13 year 8 students, six year 7 students, 15 parents, six teachers (the SMAD coordinator, the action planning program coordinator, the assessment coordinator, the Religious Education (RE) teacher, an English teacher and a technology teacher) and educators associated with the SMAD project or flexible learning (2). Observations of 15 lessons occurred: technology (7), English (4), Religious Education (2), humanities (2). Over 50 documents were analysed which included information concerning the SMAD project, flexible learning, teachers' lesson notes, handouts, student self-evaluations, portfolios, assignments, "admin" folders, school policies and prospectus.

In addition, I attended an INSET day on flexible learning for Forest teachers, conferences on flexible learning, school effectiveness and school improvement, staff meetings and a School Improvement Network meeting where two students, a teacher and two administrators from Forest presented their findings. I also attended a parent-teacher evening where I interviewed the parents. These were taped except for three. Notes were made and written up immediately after all interviews.

The entire corpus of data for each case was read several times for general impressions and then for deeper understandings. During these readings, notes were taken and memos were made to track emergent issues and patterns as familiarisation with the data occurred.

Secondary Phase

The second round of analysis involved rereadings of each set of field notes, interview data, further viewings of the video recordings (for the Arboret case study) and analysis of documents. Information to illustrate student self-evaluation processes was compiled. The interactions which accompanied the change in practice were examined, synthesised and used to develop descriptions of student self-evaluation processes in development and portrayals of student self-evaluation processes in action. For each case study, snapshots or portrayals were incorporated. For example, the Arboret case study included snapshots of formal self-evaluation processes in years 9 and 10 social studies classes and snapshots of informal self-evaluation processes in

year 9 English classes. Portrayals of the student-centred classroom, parent information evenings and an account of the staff development day were also provided.

The case study of Grove College incorporated accounts of the use of GNVQ unit specifications and application of GNVQ assessment and grading procedures. Accounts of the portfolio and link periods were developed from an examination of relevant documents and observations, a snapshot of a link period was also developed from observational and interview data. A portrayal of student self-evaluation processes was constructed from student interview data and analysis of student portfolios.

The Forest School case study also incorporated snapshots and accounts of student self-evaluation processes. For example, snapshots of self-evaluation in technology, English, Religious Education and Humanities classes were developed from observational and interview data. Accounts of informal and formal self-evaluation were included. A portrayal of a staff development day (based on flexible learning) was constructed from observational data.

It was considered important, from an analysis of these data and the development of the portrayals and snapshots, to examine the school/college context in which the practice of student self-evaluation was being implemented. The contextual features were therefore described in detail. This was accomplished by studying documents which provided pertinent information concerning the school/college environment and its idiosyncratic features.

In the Arboret case study the school's development plan, the principal's written description of the school (provided for senior officers), a school profile statement and documentation associated with student-centred learning and the NPQTL Project were chosen for close examination as key documents. For the Grove study the following documents were used to describe the broad and specific contexts: GNVQ Handbook, unit outlines, grading procedures, GNVQ newsletters, Nuffield Science in Practice notes and newsletters, Grove college science assignments and grading procedures. Finally, for the Forest case study, the documents used to describe the specific school context included: the school prospectus, documentation associated with the SMAD project, assessment policies and procedures. The broad context was described using policy statements and reports issued at the national and Local Education Authority levels.

Transcriptions of interviews with teachers, administrators, parents and students and observation notes were also studied. The relevant information that emerged, and explained the context, was drawn from these sources and used in the first instance to locate the school/college in the broad context. Data were also used from these sources to describe the specific context and some of the idiosyncratic features of each site. For example, at Arboret the adoption of student-centred learning and the school's involvement in the NPQTL project were idiosyncratic. At Grove this type of characteristic included the college's involvement in the Nuffield Science in Practice Project and at Forest it was the school's involvement in the SMAD Project. A profile of the school/college was also included to further contextualise each study.

The broad and specific contexts of each case study were examined. It was apparent that each site had implemented differing types of student self-evaluation processes for varying reasons. These processes had some different dimensions and were being implemented in distinct educational environments, with ranging conditions, tensions and results. A further level of analysis of the data therefore occurred to identify specifically the substantive themes for each case study.

Tertiary Phase

For all case studies, the tertiary phase of analysis involved, several rereadings of the entire data corpus, including portrayals and descriptions. During these readings analysis occurred. Sections were highlighted, notes recorded, comments and observations were made in margins of transcriptions, documents, reports or observation notes. A list of major ideas which cut across the various sources (parents, students, administrators and teachers) and methods of data collection (interview, observation, documentary and video recorded evidence) was compiled. This involved sorting and resorting of all data into this initial outline of classifications. For example, interview transcriptions were analysed by listing the range of responses for each question and then identifying patterns within the responses.

A further stage of analysis was required to synthesise and collapse emergent classifications into significant themes and recurring categories. The clarification of these categories occurred during analysis when it was necessary to move backward and forward from considerations of context, interactions and types of self-evaluation processes. This tacking backwards and forwards between different levels of particular to general or general to particular, and concrete to abstract or abstract to concrete, formed the essential elements of this phase of analysis.

During the identification of the underlying patterns or conceptual categories that made sense of the phenomenon (Glaser & Strauss, 1967, p. 253) the use of the constant comparative method (ibid) and coding of data took place. The level of comparison did change so that no longer were interactions being compared, rather interactions with properties of the category were being compared. For example, once the types of student self-evaluation processes had been identified as formal and informal, the following properties were identified for the latter type: verbal, quick and complementary to the natural self-evaluation processes.

Final Phase

The final round of analysis involved cross-case analysis which included the generation of similarities between cases and the listing of differences. Similar categories at this stage were reduced to a small number of highly conceptual categories, propositions were established and data were checked for fit into the overall framework developed. Finally it was possible to write the findings from the coded data: data reduction, data displays and conclusion drawing (Miles & Huberman, 1984).

DATA CODING

An integral feature of data analysis for the individual case studies and the cross-case analysis was the coding of the content of data and data sources. As categories emerged data were coded to determine the frequency of occurrence of emergent themes within the various data sources. For example, evidence from students, teachers, staff and parents at Arboret High School suggested certain propositions such as "the classroom context in the implementation of student self-evaluation is important". This required an examination of the other data sources (documents, observations, video recordings, reports, portrayals and descriptions) to ensure that such assertions were correct.

In the first case study of Arboret student self-evaluation was categorised into two types of formal and informal. The substantive themes included: processes and dimensions of student self-evaluation; supportive conditions; constraints and perceived learning outcomes. These broad categories were similar for Grove and Forest. However, in each case study the properties of each category varied. For example, at Grove FE College the dimensions of student self-evaluation included the ascription of a grade, and a property of this dimension was the need for explicit standards.

The entire data base was reread and coded using the above categories. That is, data that could be categorised into one of the above categories were identified and their source described. For instance, the use of 'the round' was identified as an informal type of student self-evaluation process and its use was observed in the English and social studies classes so this data source has been indicated after the discussion as follows: (Observations, 1993). The data sources used were:

- interviews with teachers, students, parents and administrators;
- observation or field notes;
- documents and
- video recordings.

In the individual case studies and the cross-case analyses, each individual source has been identified after most situations so that evidence can be traced back to the source. For example, for Arboret, interviews are indicated as (Parent Interview, 1993), observation or field notes are shown as (Observation, 1993), documents are identified (School Development Plan, 1993-94) and video recordings are shown as (Video Recording, 1993). In some instances, it became too unwieldy so the source was described within the text.

The study of student self-evaluation was more progressively focused with each case study and in conducting three case studies in two different countries and three different educational settings several constraints emerged.

CONSTRAINTS OF THE STUDY

In this thesis, the focus for each case study was on teachers who were piloting or implementing forms of student self-evaluation. Time was the major constraint in this context for it was not possible financially to prolong the study beyond the fixed time frame of six months. Associated constraints stemmed from the context of each case where student self-evaluation was not implemented fully nor institutionalised (Huberman & Miles, 1984). Each site's separate involvement in a project gave rise to an additional set of contextual factors and tensions which impacted on findings and needed to be identified. This was a further constraint in that the research was generated in the context of innovative projects and multiple innovations.

The circumstances of the research presented further constraints because it was conducted in two countries on three completely different sites. For reasons of validity it was important to adopt consistent methods of data collection and analysis across these sites. In the Australian case study however, the site was located approximately

300 kilometres from the city of Perth. Data collection involved the additional use of video recordings of a week long visit incorporating observations of classroom practice, teachers' professional development days and parent information evenings. It was intended that the video recordings would supplement observations and field notes. In the selection of sites for the two case studies in England financial constraints prevented the conduct of research outside the inner London area. This meant that although video recordings did not form part of the data collection process, repeated visits to the London sites were possible.

Further constraints relate to the nature of each case study site. At Arboret the focus was on teachers who were using a student-centred learning approach (33% of the teaching staff). Not all teachers were adopting student-centred teaching at the same rate, for although they might have been aware of what was required in a student-centred mode, they indicated that they did not know how this was to be accomplished. This high school is only a three year school so another constraint was the small size of the school. The student population is 170 students and 30 were interviewed. While teacher, student, administrator and parent perceptions were sought, proportionately less parents were interviewed (four). These are further constraints of the study as only their perceptions are recorded.

At Grove the science and mathematics department was piloting the Advanced Science GNVQ program which required the implementation of new curriculum, new pedagogy and new processes for evaluating and grading student performance. This set of circumstances, together with the fact that there were only 15 students and five lecturers, resulted in constraints for this study. The pilot nature of the program resulted in changes and modifications to the grading themes and procedures during the study which was confusing for both staff and students. Tensions emerged from this situation and presented further constraints.

At Forest several innovative projects were occurring simultaneously. External pressures from the broader context, such as National Curriculum and external testing, impacted on participants and resulted in constraints for this study. Some of the teachers who participated in this study were stretched for time and found it difficult to pursue student self-evaluation processes.

For discursive and illustrative purposes, the substantive themes are depicted as a static list. This constitutes another constraint as the interrelated and mutually reinforcing nature of these concepts and their properties are not accurately depicted. For example, the key dimensions of student self-evaluation are presented as: the use of

criteria, the interactive dialogue and the ascription of a grade. In reality these dimensions of the process are dynamic, complex and interrelate but for analytical reasons they have been identified as substantive themes and the rich, interactive, dynamic has been constrained.

ETHICS

The following ethical principles were adopted for each case. First it was important to ensure that all participants in the research were protected through the practice of "informed consent ... the centre of ethical research activity" (Burgess, 1989, p. 64). This was accomplished by obtaining permission to conduct the research in the first instance from the principal or in the case of the college, the course co-ordinator. The aims, purposes, procedures, potential consequences for participants and other relevant information related to the research were shared so that participants could decide to participate on that basis. It was made clear to participants that if at any stage they wanted to discontinue then they were free to do so.

I believe that openness characterised the relationship between myself and participants. This was achieved by cooperating with staff and the organisation of the school or college, clarifying expectations from the outset and ensuring that anonymity and confidentiality would be preserved. For example, pseudonyms were chosen to describe case study sites and all interviews were conducted on the principle of confidentiality. In most instances permission was granted to tape record the interviews. Some of these transcriptions (partial transcriptions included) were sent to the individuals for their clearance. This occurred for all interviews conducted with teachers and administrators. This level of negotiation was not possible or practicable for the interview transcripts of students and parents although these were shared with some of the administrative staff, teachers and coordinators of the relevant projects in each case.

Both schools were invited to decide whether it was appropriate to seek parental permission for involving students in interviews and classroom observations. The rights and welfare of students were respected and I stated explicitly that at all times I would be sensitive to the learning and teaching needs of students and teachers. This meant that I did not conduct classroom observations or engage students in interviews during the period of examinations or when it was considered inappropriate by teachers.

An ethical dilemma occurred with the interviews and confidentiality agreements with students. Simons (1989) indicates that students in some instances lack real choice because of the existing authority structures of most schools and colleges which do not make it easy for students to believe that researchers operate with "... a set of conventions separate from the authority role [of] teachers" (p. 130). The experiences of this study would support this contention because although students were volunteers and permission was sought from them to have the interview tape recorded, not one refused. I do not think that they believed that they had the choice to say no.

Although the concept of anonymity offered some privacy in the research process and some protection from identification, this was not entirely possible for all case studies. Clearance was sought in all instances for the use of data in the context in which it was to be reported in this thesis. Participants were invited to comment on the accuracy, relevance and fairness of any section of the case studies or analysis sections which concerned them. Explicit permission was gained also for the examination and copying of policy statements, examples of student self-evaluations, plans and all other written documents.

Torrance (1989) raises the issues of ethics in relation to research in the area of evaluation of student performance. He states "... there are two features of qualitative fieldwork ... worthy of note in the context of assessment ... the researcher influence on the conduct and outcome of the process under study and that of exposing routine practice to potentially unfair criticism" (p. 177). This research focuses on student self-evaluation and throughout the data collection phase I was aware that although I assumed the role of 'limited observer' in the classroom my presence and the subject of research were having an impact, which needed to be recorded and discussed.

The overall format for the writing of the case study reports was issue-focused. A narrative of the student self-evaluation processes, in the particular teaching and learning context, was created around the key issues highlighted in the data analysis. Each case study incorporates 'thick description' (Geertz, 1973) which includes portrayals of classrooms and student self-evaluation in action, snapshots of key dimensions of the process, voices of students, teachers, administrators and parents, settings described from an analysis of policy documents and interpretations of experience within the specific context of each case. Alternative perspectives and judgements have also been included when relevant.

Each case study tells a story of the implementation, development and experience of student self-evaluation in its particular teaching and learning environment. Arboret

High School is a small cluster of students and teachers which provides the setting for the first of these stories which will now be narrated.

CHAPTER FOUR

ARBORET HIGH SCHOOL: Student-Centred Learning

"I am proud to be a part of a school community where I have grown to consider myself a professional who can actively seek to make a difference"
(Teacher Comment, Arboret High School).

INTRODUCTION

To examine closely student self-evaluation processes it was important to find a school where teachers were attempting to incorporate such practice into their teaching, and where students were given opportunities to develop these skills. This search led to Arboret High, a Western Australian country high school, which was involved in a National Project on the Quality of Teaching and Learning (NPQTL).

Arboret High School described itself as "a Student Centred Learning school. Its purpose [was] to provide a balanced, general education that allow[ed] students to develop their cognitive, social and personal potential and to participate as active and responsible members of society" (School Development Plan, 1993-94).

This chapter outlines the aims of this case study. The broad context is given, to locate Arboret High School in the Western Australian education system and the NPQTL. The specific context focuses on the school profile, the school as a learning organisation and student-centred learning. This information has been synthesised from school documents, such as; the principal's written description of the school, school profile statement, development plan, and from an analysis of observation and interview data.

Student self-evaluation development processes are illustrated through a portrayal of a parent information evening and a synthesis of a staff development day. Processes associated with the implementation of whole school change of student-centred learning are given. Snapshots of student self-evaluation in action include student-centred pedagogy in a social studies class where closer examination of student self-evaluation was possible.

Further portrayals of formal and informal student self-evaluation processes follow. The use of such 'thick description' (Geertz, 1973) helps to provide a deeper insight into the processes adopted.

The substantive themes of this research include the voices of teachers, administrators, students and parents which have been synthesised from observations, interviews, video recordings and documented evidence. These themes include: a classification of student self-evaluation processes, key dimensions of student self-evaluation, supportive and constraining conditions for implementation and perceived learning outcomes.

AIMS

The adoption of student-centred pedagogy at Arboret seemed to foster increased student responsibility for learning. This approach included student evaluation of their own and their peers' work. The NPQTL supported innovative practice. An underlying premise was that schools would rethink traditional approaches to teaching and learning, thereby, challenging the regulatory framework and if necessary changing work organisation structures.

In Western Australian schools, profiles and records of achievement do not exist as part of the formal teaching and learning practice, and student-centred learning has never been widespread. This high school was selected purposively (Patton, 1980) because it was located in a context which encouraged student-centred practices, and student self-evaluation. Such characteristics, at a common sense level, seemed important to the focus of the research. The aims of this case study were to:

- study the formal and informal processes of student self-evaluation;
- examine how teachers integrated it into their teaching;
- discover if it was valued by students, teachers and parents;
- explore the conditions under which it was promoted.

BROAD CONTEXT

In Western Australia, at the time of this research, there were several significant educational reforms being implemented. The broad context is given first, to locate the case in the political environment and to indicate some of the external forces which were driving the educational changes.

Educational Reforms in Western Australia

The devolution of decision-making from the central bureaucracy to schools in Western Australia (Ministry of Education, 1987) and the requirement for schools to demonstrate accountability (Ministry of Education, 1991) resulted in schools implementing development plans (Ministry of Education, 1989).

At Arboret the school plan priorities were: cognitive development of independent learning and higher order thinking skills, social development of respect for the rights of others, appropriate problem solving, conflict resolution skills and personal development of responsibility for one's own learning and behaviour (School Development Plan, 1993-94). The school pursued these priorities through involvement in the NPQTL which the principal saw as the "catalyst to move a lot quicker". She viewed it as a "never-ending project" (Principal Interview, 1993).

National Project on the Quality of Teaching and Learning

The NPQTL was a co-operative endeavour of government and non-government employers and teacher unions. Three working parties examined issues such as professional issues, teachers' work organisation and related pedagogical issues. The project was committed to improving learning outcomes for Australia's students. Abilities like critical listening, analytic skills, problem solving, communicating ideas and creative thinking were identified as being as vital as literacy and numeracy. This commitment emerged from a broader context of microeconomic and social reform.

It was intended that teachers involved in the project would collaborate and "not only identify the best learning outcomes for their students, but devise and field test different forms of work organisation to help them achieve these goals" (NPQTL Secretariat, 1991, p. 3). In relation to the pedagogical issues it was stressed that: "We need a paradigm shift to a new way of learning which focuses on skill formation. If the very process of learning is didactic, then students are not learning in a way that's coincident to their future study or work" (ibid, p. 2).

This context allowed Arboret to rethink the design of the school day and to reshape teaching and learning to achieve improved educational outcomes for all students. For example, classes were timetabled so that there were sixty minute blocks of time (some 120 minute blocks) which allowed for increased flexibility. The intended student outcomes inspired these structural, pedagogical and work organisation changes. The principal stated:

"With this project the aim is to more effectively achieve student outcomes. ... That is where we started. We spent a long time working that out. ... We developed a concept map with the major aim to encourage students to be independent learners" (Principal Interview, 1993).

The principal went on to explain that "... if you are genuine in wanting responsibility as a student outcome, you have to give students the opportunity, you have to look at how you teach, and what you are teaching and the way you go about it. ... it caused us to be reflective on a whole school basis". She emphasised this last point (Principal Interview, 1993).

The conceptual framework focused on improved student learning and delineated the following:

1. time tabling, organisational structure and work structure;
2. classroom practice, resources and professional development;
3. assessment, reporting and certification;
4. syllabus, curriculum and outcome statements.

Through making the conceptual framework explicit, this school was able to create opportunities for development and change to existing structures, pedagogy, curriculum and evaluation processes (Klenowski, 1994).

SPECIFIC CONTEXT

The specific context describes conditions responsible for supporting or hindering the implementation of self-evaluation. A school profile summarises the population, school's vision, aim, philosophical principles, priorities, organisation and structures. The school described itself as a learning organisation which was developing student-centred pedagogy. These details are provided.

School Profile

This school enrolled 170 students from years 8 to 10 (13 to 15 years old). There were 16 staff: a principal, two deputy principals (who also taught) and 13 teachers. The small size of the school required teachers to teach in at least two different subject areas. Staff took on multiple roles and cross-team interaction for teaching and administrative purposes developed.

During 1993 Arboret piloted the student outcome statements, a curriculum innovation which was being trialed at the national level. Staff had to be familiar with the Unit (Modular) Curriculum and the student outcome statements. They planned, developed, and reviewed the use of the latter in their teaching program, assessment methods and reporting procedures to parents.

The school's agreed vision was "to create a learning environment that [would] foster independent learners" (Principal Interview, 1993). This was formulated by the staff.

The following principles (Principal's written description, 1993) underpinned the teaching and learning (See Figure 1).

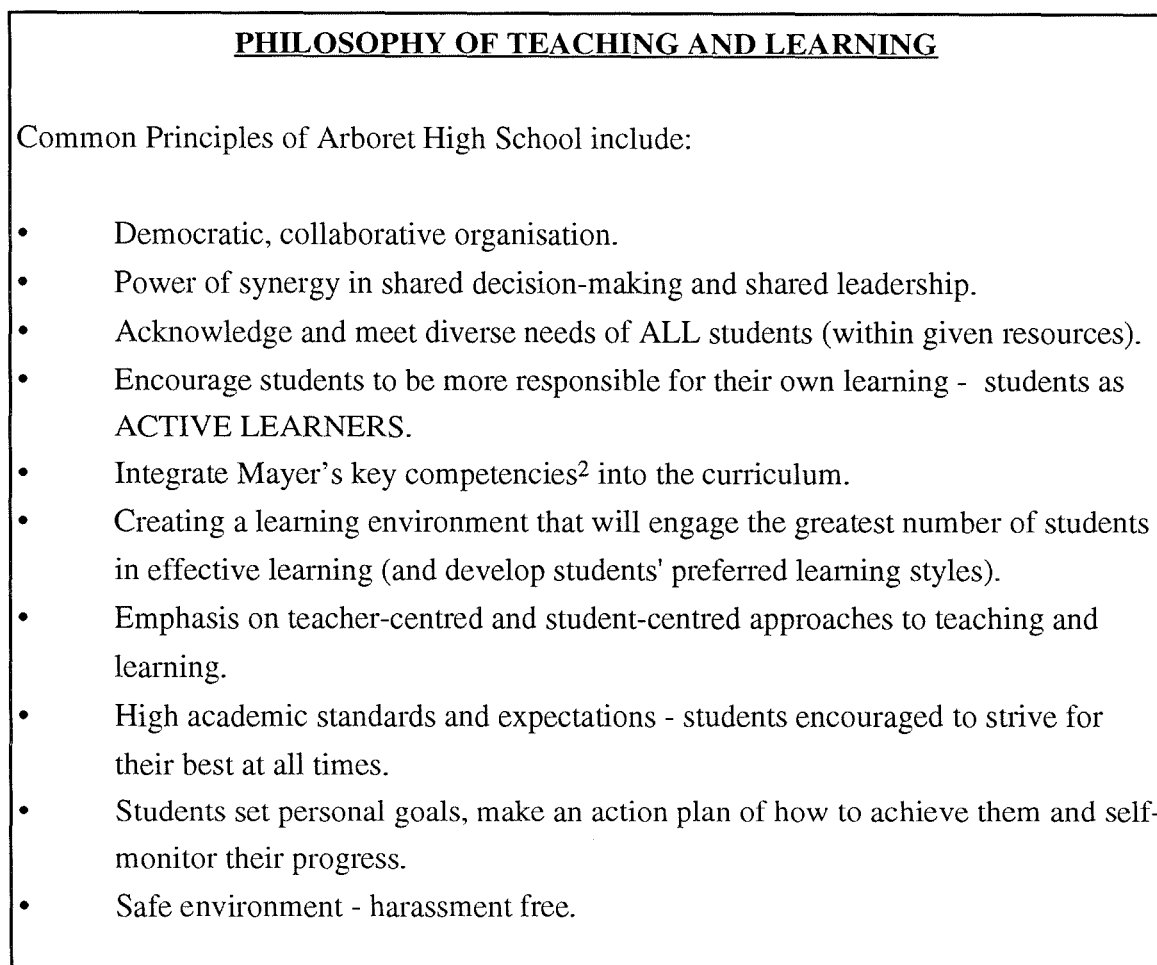


FIGURE 1. *Philosophical principles which underpinned the teaching and learning at Arboret High School.*

The main aim was to improve the quality of teaching and learning for all students by improving the learning program and learning environment. A “backward mapping” (McDonald, 1992) process was used to translate the vision into concrete ways for students to show their intellectual and personal growth. To develop students' skills of responsibility and problem solving the learning program emphasised: working in teams; communication; negotiation; decision-making; organisation; research and independent learning.

² The Mayer key competencies included problem solving, working in teams, collecting, analysing and organising information, communicating ideas and information, planning and organising activities, using mathematical ideas and techniques and using technology. These competencies were identified by a committee of Australia's Education and Training Ministers and 30 people drawn from the different sectors of education and training, business, unions and higher education.

The teachers explained to students the rationale for implementing student-centred learning and why skills of responsibility, problem solving and other 'non-academic' outcomes were considered, as important, as the academic ones. Students wanted to learn differently and, together with teachers, reached consensus on the intended learning outcomes. A critical issue which emerged for the school was the concern expressed by students regarding the lack of opportunity for them to have their say and to demonstrate responsible behaviour. "The kids said things like: if you want us to be more responsible why do you have all these out of bounds areas? And if you want us to be more responsible why do we need a note to go to the library? They came up with really good things" (Principal Interview, 1993).

A School Consultative Committee was established to improve communication with the student body as a whole and to sustain stronger staff-student links. It had a staff convenor, a representative from each form class (8), two teachers and an administrator. The new structure provided a forum for direct input and feedback for students.

The high school's structures consisted of a School Based Decision-Making Group (SBDMG), an administrative group, a senior staff grouping, the student council and the Parents & Citizens group. In early 1992 the school flattened the structural hierarchy by "rethinking the positions that teachers hold and [through] a more equal spreading of responsibilities. ... We have got eight out of the sixteen staff who are middle managers. ... All decision-making ... goes back to the forum" (Principal Interview, 1993).

Learning Organisation

Arboret described itself as a learning community and engaged in learning to improve the delivery of its service to students. It was also described as an organisation which "continually grows and reviews its processes" (Principal's written description, 1993). Professional development of staff was valued and the professional development program was a key strategy to the development and implementation of the school's teaching and learning philosophy at classroom and whole-school levels.

Research (Nias et al., 1992) suggests that there is a need for the two processes of learning ('learning what' and 'learning how') to be ongoing in schools involved in whole school change. 'Learning what' has been defined as "... the process by which beliefs and values [are] spread amongst those associated with the schools. 'Learning how' describes the ways in which teachers and others [acquire] appropriate practical experience" (ibid, p. 165). To internalise such learning and to change one's teaching practice takes time. For as Nias et al. state "[b]efore teachers can make new ideas part of both their own

idiosyncratic approach to the curriculum and the belief system which they share, or are coming to share with their colleagues, they need to feel confident about handling them in practice" (ibid, p. 175).

Learning what to change requires a committed group of teachers who spread their beliefs through roles they fulfil in the school community. At Arboret all staff shared responsibility for on-going staff development. School community members were informed of student-centred learning at parent information evenings or professional development days by teachers who had integrated it. The responsibility for moving the ideas on came back to this nucleus of committed school community members. Nias et al. describe this process as "... a cyclical process in which increasing numbers of staff [participate]" (ibid, p. 176).

"Learning how involves extending the practical mastery of these shared beliefs" (ibid, p. 175). Teachers learnt about student-centred learning and associated active learning strategies. They then integrated these strategies into their practice. Opportunities to learn how, through acquired roles or development situations, were needed. Support and some obligation to demonstrate what was learnt was required. This process stimulated and gave confidence to others who were supported, encouraged to take up similar opportunities, and obliged to share or demonstrate their learning.

Student-Centred Learning

Arboret's major aim was "to improve on the quality of teaching and learning for all students" (School Development Plan, 1993). To achieve this the school developed the philosophy and methodology of student-centred learning:

"A student being responsible for herself means PLANNING, ORGANISING, IMPLEMENTING, EVALUATING her own learning. ... These four elements of the learning process ... are traditionally taken over by the teacher. For her to let go, and transfer these processes back to the students, may require a major change in the attitude, language and behaviour" (Brandes & Ginnis, 1992, p. 25).

Some teachers integrated these principles (See Figure 2) and began to share the responsibility for learning with their students. An outside consultant, whose area of expertise is student-centred learning, was employed by the school. The first whole staff meeting with the consultant in 1991 raised issues and provided information on: student-centred learning; classroom practice; resources and professional development. More specifically the focus was on the work practices and school structure necessary to support student-centred learning.

The following nine principles underpinned student-centred learning (See Figure 2).

<u>PRINCIPLES THAT UNDERPIN STUDENT-CENTRED LEARNING</u>	
1.	When we value the learner, we increase her self-esteem and her openness to learning.
2.	The most effective learning is 'owned' by learners who are consistently regarded as responsible for themselves.
3.	Maximum growth of the learner occurs when she herself carries out the planning, organisation, implementation and evaluation of the learning.
4.	Much effective learning is achieved through doing.
5.	Learning can best take place in a safe, supportive environment.
6.	Learning which involves the whole person, not just the mind of the learner but the feelings also, is the deepest and most permanent.
7.	A learner's affective and cognitive growth are enhanced by positive interaction with other learners.
8.	The most socially-useful learning is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.
9.	Creativity is increased by an environment marked by fun, humour, spontaneity, risk and intuition (Brandes and Ginnis, 1992, pp. 12-16).

FIGURE 2. *Principles which underpinned student-centred learning.*

STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES

To illuminate the interconnected nature of whole school change, and the complexity of implementing self-evaluation in a student-centred learning context, a portrayal of a parent information evening and synthesis of a staff development day are presented. Parents and staff were provided with opportunities for their professional development: "a community of learners". The information evenings appeared to clarify issues of parental concern.

Portrayal of a Parent Information Evening

In March of 1993, twenty parents together with five staff members, were informed by the professional development consultant about student-centred learning. This portrayal

has been created from recorded observations and field notes. Staff had commenced professional development in the student-centred approach.

The principal explained that the school had been involved in NPQTL “which is about encouraging a paradigm shift to a new way of learning focused on skill formation. It is a fundamental premise of the project that schools can’t deliver the student competencies now required if they retain the current forms of work organisation” (Observation Field Note, 1993).

The consultant explained that student-centred learning required increased responsibility on the student’s behalf to plan, organise and evaluate the work. A discussion involving parents and staff ensued: the focus was the disadvantages and the advantages of this approach. The principal invited some teachers, engaged in changing their teaching practice, to share their experiences. She introduced them thus:

“This school is unique, the staff are extremely professional and competent and experienced in teaching kids. Staff are humanitarian in their approach and encourage students to take responsibility for their learning, they encourage the development of generic skills” (Observation Field Note, 1993).

She indicated that some of the curriculum was non-negotiable, however, it was possible to choose what and how to teach skills such as leadership, problem solving and higher order thinking. A snapshot of a student-centred classroom (See pages 70 to 75) was given. Parents wanted to know how students demonstrate their learning. The social studies teacher explained (See pages 75 to 79). He emphasised that skills, such as teamwork, were important for the student's future use. Another teacher indicated that “kids make one another accountable.” Teachers, together with their students, monitor the learning and assess the extent to which students are co-operating with one another.

Another parent asked the question: what about the student who is not gifted? A teacher, explained that the teacher's role as facilitator of student learning needed to ensure that there was an even distribution of attention for all students.

The consultant called upon the principal to describe what the school was doing. She responded: “we’re developing a community of learners. That is, we’re here to support one another, to share our learning and reinforce one another”. Another teacher responded: “Teachers as learners. The greatest retention is through teaching others. There is approximately a five per cent retention rate through the didactic

approach to teaching. Cross curricular teams of three teachers have emerged. For instance, there is an Arts Team made up of Music, Drama, Theatre Arts and Art. In this way we feel we are modelling what we teach through performance" (Observation, 1993). At this stage the consultant was thanked and she left, as the parents stayed on to discuss with staff, issues related to the Parents & Citizens Association.

These parent information evenings were generally considered a success, although an underlying concern related to the numbers who attended. The need to involve more parents and members of the community was a consequent aim.

Synthesis of a Staff Development Day

This account of teachers involved in, and providing, professional development highlights the compatibility with the democratic management style of the school. This synthesis demonstrates how the necessary environment, appropriate professional development and involvement of staff has occurred. The program was negotiated by staff to meet their specific development needs and to facilitate progression towards the school's identified goals.

In April 1993 staff, a district education officer and the same consultant continued with the professional development program. A staff member volunteered to facilitate the morning session using Socratic dialogue (a strategy she had acquired at a conference). Socratic dialogue was used to demonstrate how, by posing questions which go deeper, it is possible to foster intellectual rigour. The teacher explained that by giving students the answers teachers sometimes set up expectations for students to see this as the teacher's role and that the teacher is always 'right'. The exercise required participants to consider whether an object (a catalyst for learning) could be described as student-centred. The group were encouraged to ask questions as each participant gave his or her response.

The discussion which followed revolved around the teacher as learner, and students taking greater responsibility for their learning, if the educational environment is conducive. A teacher expressed his concern with having to cover the syllabus and to teach set objectives. He felt changing his teaching style so dramatically was a risk and believed that the use of Socratic dialogue as a teaching strategy to give students the opportunity to raise issues would be difficult. This tension emerged with the pressure to cover the set curriculum in the given time frame. A debate followed which raised issues about how these teachers would change their practice because as they concluded: "the current system promotes the 'feeding of information to students' as opposed to fostering skills in 'learning how to learn'".

Participants' responses included: "the process had made explicit people's thinking", "got to things that really matter", "didn't go to a deeper level of questioning because of the anxiety" and "prompted thinking and made us review the way we teach and the need for various departments to get together" (Observation and Video Recording, 1993).

At this stage the consultant assumed the facilitator's role. She processed the morning session by commenting on emergent issues such as the coverage of content. The agenda for the remainder of the program was negotiated with participants who wanted: to share teaching strategies; to discuss student discipline and time management. Teachers who were not confident with student-centred learning wanted more insights and guidance into how such practice translates into the classroom. Those who had integrated student-centred principles were willing to share their experiences. For example, two social studies teachers shared their experiences.

The consultant, in summarising this input, stated that teachers had to have high expectations of their students. She stressed the need for teachers to identify the criteria for student performance outcomes, the targets and deadlines. She contended that this would help students understand the standards that were expected and the process of evaluation. She suggested teachers end each session, lesson or program with 'a round' of student self-evaluations so that students were made more accountable for their learning. The message was that "independent learning could be fostered in this way".

Throughout the day teachers expressed their opinions freely. Comments which reflect some difficulties experienced follow: "I find it difficult to resonate with student-centred learning principles because I'm still learning" and "I need more exchange of ideas, time to share, discuss similar problems and find solutions" (Observation and Video Recording, 1993).

It was made clear by the consultant that the ground rule of student-centred learning is that there is no punishment. Teachers need skills in negotiation and communication to establish trust. Being truthful, open with one's feelings, genuine, showing respect for others and not using the position of power to control, but rather being assertive and using appropriate confrontation, were qualities to develop.

The issue of time for purposes of discussion, sharing and reflection emerged. Other time-related concerns were: the constraining nature of the curriculum framework and

the timetable structure of one hour teaching blocks. It was recognised that restructuring time would not necessarily mean better student-centred learning. The principal urged whole school support if change from an hour to two hour blocks was to go ahead. She encouraged flexibility, teacher/peer review, reflection, more sharing and whole school support. It was on this issue that the day concluded (Observation and Video Recording, 1993).

STUDENT SELF-EVALUATION: PROCESSES IN ACTION

Student self-evaluation, in a student-centred context is integral to the learning process. Brandes and Ginnis (1992) support the move towards "... assessment which is formative, integrated into the learning process and based on commonly-understood criteria". They value the need for learners to evaluate "... as they go along, to prevent their work from becoming circuitous, or deviant from the path of long-term targets". They are critical of external assessments which set up mechanisms "... which compare and categorise student performances and present information about students in a packaged and labelled form to others" (p. 38). Sadler (1989) agrees when he states that "all methods of grading which emphasise rankings or comparisons among students are irrelevant for formative purposes" (p. 127). Brandes and Ginnis (1992) object to the judgemental aspect of external assessment which is damaging to self-esteem and creates labels which could remain with the student throughout his or her school career and beyond. Their other major objection is to the frequency of external assessment which they indicate "... usually results in students being motivated by the need for external validation rather than by the satisfaction of achieving excellence per se" (p. 39). Wiggins (1992) too supports this notion that students need to be intrinsically motivated which he argues can be fostered by giving students authentic tasks to perform rather than being motivated by extrinsic factors such as "someone is evaluating us" (p.28).

Student self-evaluation, which is fostered by student-centred pedagogy, was observed to find out what was involved and how teachers integrated it into their teaching. How does student-centred pedagogy translate into action in the classroom? This portrayal of the same class during different terms provides an insight into how this teacher team integrated the principles of student-centred learning.

A Student-Centred Classroom

This first lesson took place in March 1993, between 9.00 - 10.00 am. It is a year 10 social studies class of 24 students (14 girls and 10 boys) whose teachers are a husband and wife team. The team teaches this class together. Both teachers are not in the

classroom all of the time, although in both lessons observed this was the case. The wife is also a deputy principal.

Desks are stacked at the side and arranged in the centre of the room is a circle of blue plastic chairs. The teachers' table is also to the side of the room and has papers, books and a globe of the world on it. Filing cabinets are near the table. A set of encyclopaedias is on a shelf at the back of the room; white boards, an overhead projector and screen are apparent teaching aids. The pin-up boards display posters of student work which illustrate the various land forms of Australia. A map of Australia and maps of the world are exhibited on the walls.

Students walk quietly across the carpeted floor, sit down, place their books under their seats or on nearby stacked desks. They talk while they wait for the remainder of the class to arrive. The male team teacher takes this opportunity to show the class the relief map of Australia which had just arrived. A couple of latecomers apologise and are asked to find a seat wherever they can.

The teacher asks the class, which is now seated in the circle, to focus on their feelings given that some of them will be doing the test based on the topic of contours. All (teachers included) are asked to choose one or two words to describe how they feel. Each student responds, for example: "nervous", "tired", "anxious", "same".

Once the round is completed the teacher asks students to demonstrate, by stretching out their arms in front of them, how confident they feel, using a scale of high for very confident to low for not at all confident. If they are feeling confident about taking the test then their outstretched arms are shoulder height, the less confident they feel the closer the outstretched arms are to their knees. This 'barometer' enables teachers to gain an overall impression of the group's level of confidence.

The female team teacher indicates that being tired prior to doing a test is not a good way to approach an assessment task. She calls for five volunteers who make a smaller circle ('the fish bowl', so named because those sitting in the outer circle can observe their discussion) within the larger circle. An empty chair is added so if someone from the outside wants to contribute then they too can join in.

The question put to 'the fish bowl' is: how do you approach an assessment task? The following responses were forthcoming from the students seated in the inner circle: "Study!"; "I would make sure I felt prepared."; "I would want to feel confident that I could pass the test not nervous."; "I would read through my notes prior to taking the

test.”; “I would bring the necessary gear to class, like for mapping: ruler, protractor, notes.”

Meanwhile the teacher on the outside, encourages those students in the exterior group to go forward to the inner circle to contribute. A girl seated near me appears anxious to contribute. She raises herself slightly, ready to go forward, then bobs back down. Again she rises only to resume her seat. Within a few seconds she seems to muster all of her courage and moves swiftly out of her seat and takes the vacant chair in the inner circle.

The female teacher acknowledges empathetically the step she has taken. Her contribution: “I would read through the questions first to get an overview and if there were more than one, then I would do the question I could do easily first.” The teacher seated on the inner circle affirms this point, as she has with all other contributions. All are thanked and asked to return to the larger circle.

The male teacher explains that it is important to raise the energy level prior to going into a test situation. He gives precise instructions: “If you have chosen to do the test today then find a seat on your own. Usual test conditions apply. Remember to use your brief notes during the test. For those of you who need a bit more practice move into your teams.”

Students move quickly, with little fuss, into their respective positions. Those who have chosen to do the test unstack desks so that they sit on their own; those who have evaluated their need for more time move desks together and into their teams. I observed a group of three boys seated at the window, away from those who were in test conditions at the front of the room. The teachers move around the room and help where needed.

“What did you do yesterday?” (This student had been absent the previous day and was catching up on what he had missed.)

“Did what we wanted!” replied one of his team mates.

“How hard was it?”

“This one’s got a grid.” (The other member of the team referred to a contour map of the local region that had been the focus for the work completed the previous day.)

“You had to put in the school, the hotel, the river.”

They continued to work co-operatively on the definitions of the geographical terms of spur, ridge, gap and saddle.

Prior to the end of this lesson I spoke with these boys. They explained how they work collaboratively in groups of five or six on work sheets and contour maps. They indicated to me that they could read the contour maps and had applied concepts of concave and convex which they had acquired in mathematics. They had checked out their understanding of these concepts with their teachers. The boy who had been absent the previous day felt he had been given the information he had missed. They all felt that they had reviewed sufficiently for the test and would sit for it the next day.

In this class the teachers did not need to dismiss the students. They moved off independent of instruction, siren or bell. The agreements of how to behave in the classroom appeared to be understood.

One term on in April 1993, between 9.00 - 10.00 am, the same year 10 social studies class with 25 students (14 girls 11 boys) and the same husband and wife team was observed again.

Students are seated in a circle and are asked to review the work completed in term one. They are asked to identify a skill or area they have improved in. They share their reflections in pairs. In the larger group the teacher asks for contributions. The following are offered: "group organisational skills", "working together as a team", "teamwork", "mapping", "research skills" and "more enjoyment".

One of the teachers asks the students to set themselves a goal in social studies for term two. They can choose another member of the group and are encouraged to move if they want. The students seemed engaged. The goals established, included: "improve grades", "improve essay skills", "more efficient study program", "better quality work", "hand in all assignments", "improve concentration" and "want to enjoy and get on with the task".

In this class students keep a reflective diary for the group in which they work. They were instructed to write out their goals and indicate how they were going to achieve them. Students moved into their groups, organised their diaries and one group member took the responsibility for recording each person's contribution.

I listened in on one group.

"How are we going to improve grades?"

"I've got to work this term."

"Better grades and concentration."

"Work more equal."

“How do you know?”

“Better grades and concentration.”

“A lot of concentration.”

“More homework.”

After approximately 10 minutes in these groups they were asked to gather around the overhead projector, which was positioned at the front of the room. Students moved their chairs quietly to their new seating positions.

The teacher indicated that in changing from traditional teaching to a student-centred approach it was the responsibility of the class to take over the work. He explained:

“[I’m] handing over more responsibility to you ... how you do things and as far as I’m able to, the what that you do. In some ways this is a bit traumatic for me because I’m used to saying this is what we’ll do and this is how we’ll do it and we’ll get going. We’re about to try something different.

The next unit is ‘Conflict and Co-operation’. First we’ll have a look at what we’ll learn out of the unit. It’s an open unit so therefore there will be more choice for you in what you do and how you do it. For instance, at some stage we need to look at one conflict and how it got going. I see no reason why everybody in the class if they wanted to choose a different conflict to look at for example: The War of the Roses, the conflict in Kuwait, to the conflict in Bosnia. You will make decisions about how you’re going to demonstrate to me and the rest of the people in the class how you’re going to do it and what you’re going to do” (Video Recording, 1993).

After sharing these comments, this teacher returned attention to the outline of content knowledge for the unit on Australian land forms which was currently being studied. He read through each topic, expressed as questions (eg What different types of landscapes are found in urban areas?) and underlined key words. The questions had to be answered during the next four lessons.

The teacher facilitated a brainstorming session with the class on different types of landscapes found in urban areas. The essential questions students needed to explore were reiterated. Students were told that they could choose how they wanted to do this from a list of study options which had been compiled with a previous class. This was given as a starting point from which students could choose or/and expand. They were

also asked to consider: "How will you demonstrate to us and other students that you understand?" Another list of suggestions (oral, written and other) was given. Students moved into their teams to consider the topic and lists.

The group I observed read through the list and chatted about the suggestions. One of these, under the heading of ways of learning, included "watch T.V.". They chatted and joked about this suggestion.

"Is there multiple choice? Because I'm good at those!"

"We're not having an overhead projector!"

"An oral display?"

"Chalk and talk - no way!"

"Watch T.V."

"Yeah!" several of this group chorused.

"Camp! Double tick next to that one!"

They continued on through the list and indicated their preferences.

Meanwhile the other teacher wrote up the program of work on the white board.

28 April	Introduction
29 April	Work to be done
3 - 5 May	Work on urban landscapes
6 May	Review/Peer Evaluation
10 May	Introduction to "International Conflict and Co-operation"

For a further 12 minutes the groups discussed the two lists, while the teachers circulated from group to group. Students moved out on their own (Observation, 1993).

Year 9 Social Studies Class

The individual task which the students in this year 9 social studies class had to perform was to conduct research to produce a guide to the Australian Government system. The teacher chose an individual project, rather than a team assignment, for this evaluative exercise. This was because of his own confidence level with the student-centred approach, and the students' experience of this approach (one term of "quite deliberate student-centred learning"). He predicted that to evaluate a project produced by a team effort would be too difficult for them at this stage. This was because, as a team, they would have been expected to cooperate on the research and would have shared information, making the evaluative task more complex. "I chose

the separate task because I was interested in the assessment side. I wanted to have a task that I knew would work OK initially."

Prior to carrying out the evaluative task, the students and their teacher discussed, identified collaboratively and agreed on the evaluation criteria: presentation; content; accuracy and breadth of research. This process of criteria identification involved the teacher facilitating a brainstorming session. The suggestions were then put into priority order and group consensus was reached about the values allocated to each criterion.

The teacher was surprised that students identified the criterion of breadth of research (which they described initially as 'width of research') to be judged in part by an examination of the bibliography. The students decided they would consider the number and range of resources used. They would apportion more marks for research, and the breadth of that research, than for presentation. They argued that not everybody can set out their work artistically.

All projects were made available to students. Students and teacher agreed on the categories of: "did the task very well", "did the task adequately", "did not do the task well". The teacher then instructed the class to read through the assignments and to evaluate the work according to the agreed criteria.

Some students sat on their own and read through the assignments then put them into the piles. Other students took an assignment back to their group, read it, discussed it and returned it to an allocated pile. After 40 minutes there were three piles of assignments with eight pieces of work still moving from one pile to another. After an hour every student appeared satisfied that each piece of work was in the appropriate pile.

A new student to the school whose work was not judged to be good, according to the criteria, was shifting his work out of the "did not do the task well" pile into the "did the task adequately" pile. It went back to the adequate pile until two female students confronted him. They asked him to demonstrate how he thought he had met each criterion: "Have you done that well?" His response was negative. He tried hard to keep his assignment in the adequate pile. It was the last to be sorted!

The teacher indicated: "I was quite amazed at how quickly and accurately the students judged the assignments. I have been through each of the assignments and have marked them and changed one. I actually moved it out of the 'OK' pile into the 'quite

good' pile. It was one of the ones that was quite interesting. It looked sloppy... the writing was not particularly neat ... there were a few spelling mistakes in it... it was not well set out and yet the content and the research side of it was quite accurate. ... I thought they would have been really familiar with all the work in the room and yet they weren't. They had a lot of fun reading the work ... quite often a kid ... would grab the assignment and run over to the owner and say "What the heck were you trying to say here?" and there would be furious arguments about whether it was good, bad or indifferent. That whole interaction I thought was really interesting."

In further demonstrating how students applied these criteria the teacher took one of the student's guides. He illustrated that this student's effort was considered by others to be adequate because it was presented as a guide, the information was sufficient, it was not particularly neat nor was it considered 'pretty presentation', students were not too concerned with these features as they had decided that these were not social studies skills and should not carry very much weight.

Teachers of this class established the value of the self-evaluative task by judging how well each student evaluated a piece of work (as described). This action, the teachers believed, helped to make the process less subjective. Students realised that this was another skill they had to perform. Acknowledgement that this was a serious task that was being evaluated and the expectation that students would do well helped in the implementation process.

Two guarantees were established by the teachers. First, the teacher would be the final arbiter on the student's final grade and second, self-evaluation was considered by the teachers as an authentic, expected, student work task. This "was crucial in having the students accept it as part of their working process" (Teacher Interview, 1993). The debriefing session with the students after the evaluative exercise and a discussion about the learning gained from carrying out such tasks were other important factors. The debriefing exercise was one way the teachers appeared to demonstrate to their students the value that they placed on student self-evaluation.

Year 10 Social Studies Class

At the March parent information evening one of the social studies teachers was invited by the principal to describe what happens in a student-centred classroom. In his year 10 social studies class, students had self-selected into teams with the criteria for selection being reflective of the class structure. For example, each team was representative of class balance of gender, student ability, good/poor readers/writers/researchers and the like.

He explained that the topic for the first few weeks of term was land forms of Australia. Students decided that they wanted to demonstrate their understanding of this topic by making a poster which would also serve as a teaching and learning aid. In teams they decided who would research each part, how they were to demonstrate their learning, and why they had chosen that particular strategy. They also decided on the timeline for completion, and assessed when they would be prepared to perform or exhibit their learning.

Students demonstrated their learning by presenting their poster, the product of a collective effort, to a live audience: that is, an authentic evaluative task (Archbald & Newmann, 1988; Sizer, 1992; Wiggins, 1992). Discussion and explanation of the content and knowledge acquired illustrated their understanding. The teacher commented that: "This performance provided an insight into their thinking and understanding at a higher level" (Observation, 1993).

TEAMS	PRESENTATION		RESEARCH		TEAMWORK	
	Impact	Organisa- tion	Breadth	Informa- tion	Work Rate	Efficien- cy
	5	5	5	5	5	5
1						
2						
3						
4						
5						
TOTAL						

FIGURE 3. *Form designed and used by students for peer and self-evaluation of their work.*

The evaluation of these presentations was negotiated with the teacher. Together, students and teacher identified the criteria for evaluation and decided to apportion grades as illustrated (See Figure 3). If there was a difference between the teacher's distribution of marks with that of the student, negotiation occurred to ensure a fairer distribution.

The evaluation process included a test, and in preparing for this, students chose to work individually, in pairs, as a team, or called on the teacher for input or clarification. The teacher commented that the student-centred approach seemed

quicker than past teaching and learning strategies. He also believed that this approach “has more checking points for student participation and performance outcomes” (Observation, 1993).

The importance of both content knowledge and generic skills such as teamwork was highlighted. To evaluate team skills required the development and use of innovative strategies such as the team's reflective journal. Students record information about their performance in these team journals. This teacher contends that these entries reveal that when a student is not co-operating with the team then accountability pressure is applied by other team members. The student who is not co-operating is learning from this type of feedback. These processes of student self and peer evaluation facilitated a more even distribution of attention to all students.

Year 9 English Class

The work benches of the art room were pushed to the sides of the classroom. Paint from students' past art work efforts had dried on the tops of the work benches and shelves stacked with clip boards, sheets of glass, paint brushes and other art equipment formed part of the classroom furniture. The stools were positioned in a circle in the centre of the room. Some of the students were rocking on these as they waited for others to arrive. They placed their files and books on benches but faced inward toward the centre of the group.

In a softly spoken manner, the teacher reminded students about being on time. A few enquiries were made about missing students and a chorus of replies announced that Mike was up at the principal's office because of what had happened on the green bus that morning.

The teacher referred to the learning environment (the work benches to the sides of the room and stools in the middle) and the intended effect of reducing barriers and opening up discussion. She asked students to describe what was different in this class to previous years at this school. One boy blurted out:

"We sit in a circle first before we go off to what we're doing."

The teacher moved off her stool to the front of the room where she picked up the chalk and began to write up student suggestions:

"We work at our own pace."

"It's quiet."

"We swap rooms: library, room 8, outside."

At this point the teacher intervened and asked about the change in rooms.

One of the students indicated that they were able to choose where they wanted to work "because you trust us." Another student stated how he liked it outside. The teacher replied: "You've asked and I've listened." More students volunteered the differences that they had observed. "No yelling."

"We're able to go to different places."

"You treat us like we're more responsible."

"Every other teacher yells."

"No one was listening at the beginning of the year."

"Weren't listening to each other."

"Weren't listening to you."

Again the teacher intervened and asked, "Which is important?" Several students said in unison, "Listening to each other."

"That's right, I'm only one person in the group," commented the teacher.

"Are we going to do any work today?" This freckled, faced lad rocked on his stool as he spoke.

"This is work."

"What's work?"

"Learning about how you work."

"It's just conversation!"

"We're reflecting on the way we learn." The teacher acknowledged this boy's apparent discomfort with the change in teaching and learning from the traditional approach (Observation, 1993).

Eleven students are seated in 'the round' on stools in the art room. This is the same streamed class of students who are enrolled in the foundation English units of the modular curriculum. It is the commencement of second term, 1993.

"Think of something you or we improved in and something you'd like to change. This means you will need to be honest about your behaviour. ... I'm happy to hear the changes to the structure in the English class that you would like made, ... my part in it, as long as you are sincere. Don't insult or hurt me but I'm happy to have feedback. I'd like English to be exciting and interesting as possible for you in the course that we have. Those are the limitations" (Video Recording, 1993).

Students were given several minutes to think about these issues. The typical interchange between teacher and student was as follows:

"I've improved in work you do by yourself and group discussion. People have stopped interrupting when you're speaking."

"Good, thank you. Is there anything you would like to change?"

"No."

From an analysis of these verbal contributions 81 per cent of the students self-evaluated improved individual work, 45 per cent indicated that they had improved in group work and 54 per cent indicated changes that they would like to make. These suggestions included "more talking than writing", "my work in groups when we're outside", "more confident in the large group" and "more use of the computers in this class".

One student refused to contribute and his response was as follows:

"Something I've improved in? Nuh! I'll pass."

The teacher asked the class to volunteer what they perceived about this boy's learning.

"He has learnt to use the computer" was a fellow student's reply.

Another student volunteered in a quiet and what appeared to be a sincere tone:

"I'd like to get a new brain."

"Why?"

"I'm not very smart."

This is a streamed class and these students' comments and behaviour to some extent highlight associated issues of self-esteem and confidence levels.

SUBSTANTIVE THEMES

How can these portrayals, these glimpses of student-centred pedagogy in action and authentic evaluative experience for students help illuminate the questions of how these processes operate and under what conditions they are promoted? The following substantive themes, which have emerged from the coding (See Chapter 3) and analysis of all the data, will now shed some light on these questions.

The philosophy of student-centred learning supports the enhancement of the "natural self-evaluating process" (Brandes and Ginnis, 1992, p. 95) which these authors believe is derived from the need to be affirmed and from one's motivation to grow and

develop. This natural self-evaluation is nurtured by a degree of external information. "Without any external feedback this self-evaluation flounders because it is starved of enough relevant information" (p. 95). Some of the following emergent substantive themes would support this contention.

Throughout the evaluation process Wiggins (1992) emphasises the need to ensure that scoring criteria are descriptive in language rather than evaluative or comparative (such as 'excellent' or 'fair'). Brandes and Ginnis (1992) also support this concept. They suggest that most forms of assessment deliver information from the external source in an inappropriate form of a judgement (negative or positive). These authors indicate that people re-form their self-images in the light of those judgements and can become dependent on other people's assessment of them. Blocks to learning can then occur because such dependence can mean that they "... no longer see who they are, or assess what they are doing, or know where to go next without being told by an outside person. The only learning which can occur is that which is determined by, or likely to earn approval of an external assessor" (p. 95).

It is the teacher's role to provide opportunities for students to acquire skills in evaluation, critique and to engage in self-evaluation of their knowledge and their performances. Once the students have self-evaluated they then need the opportunity to plan future action. Independent learning was an intended student outcome at Arboret and student self-evaluation was one of the relevant skills being developed to help achieve this goal. Sadler (1989) has argued that if teachers provide students with authentic evaluative experience then the students are more likely to develop the ability to exercise executive control over their own productive activities and eventually to become independent and fully self-monitoring.

Informal and formal student self-evaluation processes and the substantive themes were identified. The themes include: three key dimensions of the process (criteria identification and use, interactive dialogue and grading); supportive conditions for student self-evaluation (the student-teacher relationship, professional development, classroom context and school learning environment); the constraints (related to time, change and group dynamics) and the learning outcomes.

Informal and Formal Student Self-Evaluation Processes

Informal and formal student self-evaluation processes were identified. Generally informal processes were integrated into teaching practice in a quick, verbal and pragmatic manner while formal processes were often paper-based and resulted in a more tangible outcome which was a referent for evaluating the student's progress.

Informal self-evaluation allowed students to collect their thoughts or feelings so that they could then progress to more formal evaluative tasks or more structured learning. Examples of informal self-evaluation were illustrated in the portrayals and snapshots of student-centred pedagogy. They include: 'the round'; 'the fishbowl'; class discussion; classroom meetings; 'the barometer' and other forms of continua.

The use of 'the round' and 'the fish bowl' were processes incorporated into class discussions to create time for students to reflect. Sometimes informal self-evaluation processes were incorporated within others. In the social studies and English classes this process was used by students to reflect on their study skills and to consider their preparation for tests. Teachers seemed to receive valuable feedback about students' levels of understanding and practices regarding their revision and examination techniques (Observations, 1993).

Students self-evaluated their readiness to sit for social studies tests or to move on to the next unit or assessment task (English and mathematics). As a student commented: "We work at our own pace" (English Class Observation, 1993). Group and class discussions were strategies used by teachers in this school to promote goal-setting which is linked to student self-evaluation. For example, in the social studies and English classes observed, once students self-evaluated their skill development in the round, they moved to their groups to discuss the implications for action and to set themselves learning goals.

'The barometer' or other types of continua were used in these classes for students to display visually their levels of confidence, interest or readiness to perform the learning tasks. This informal self-evaluation process appeared to provide teachers with valuable feedback and implications for change to their teaching practice. It was one of the many "checking points" to which the social studies teacher referred (Observation, 1993).

More formal student self-evaluation practices were also demonstrated. These processes were more structured, involved teachers negotiating with students, implementation of agreed procedures and resulted in tangible evidence or paper-based outcomes that were then used to evaluate the students' progress.

Examples of such formal processes have been illustrated in the snapshots and portrayal of a student-centred classroom. In the social studies class students and teacher identified the evaluation criteria and then negotiated the distribution of marks

for each criterion. Students suggested more marks should be allocated to research rather than for presentation. They also made explicit how they were going to carry out the evaluation. For example, in the evaluation of the social studies project (A Guide to Australian Government), they agreed to evaluate the criterion of breadth of research by examining the number, range and type of resources used. In the year 10 social studies class the teachers and students decided that teamwork, research and presentation would be the key criteria used for peer and self-evaluation.

The reflective journal was another example of this formal process. It was used by students in the social studies class to allocate tasks to team members. This record enabled the team to monitor and evaluate each member's performance on particular tasks. It also functioned as a record of the team's learning goals. It was developed by these social studies teachers to provide students with feedback concerning their teamwork skills. "It's like a record of how the team functions and then the interaction between the teachers and the team members tends to be on the basis of the way that they operate in the team" (Teacher Interview, 1993). The teachers saw it as a non-threatening way of providing feedback because it was descriptive rather than comparative or judgemental. They are developing new methods of evaluation in response to the demands for skills (such as teamwork) which involve performance and therefore qualitative judgement (Sadler, 1989) of multi dimensional rather than sequential learnings. That is, in the acquisition of teamwork skills, it is not appropriate to characterise a student's performance as correct or incorrect but rather it is more relevant to provide feedback on the quality of a student's response or the degree of expertise demonstrated.

Key Dimensions of the Student Self-Evaluation Process

The key dimensions of the student self-evaluation process include first the identification and use of criteria for evaluative purposes and the involvement of students in this process. Second, the interactive dialogue between student and teacher, or students and their peers, and third, student grading of the work.

Criteria Identification and Use

An analysis of the formal and informal student self-evaluation processes highlighted the need for students and teacher to identify and discuss the criteria to be used. Stake (1979) has argued that because of the complex nature of 'worth' the evaluator needs to identify the criteria used. For students to evaluate their own or their peers' work they need to know what criteria to use. It would appear that an integral part of the teaching and learning process when implementing student self-evaluation is the identification of the criteria to be exercised. Students reported that the identification of criteria for

peer or self-evaluation was a valuable learning process. Some teachers (social studies) made the criteria known to students and involved them in the process.

Students indicated that they gained an insight into their peers' thinking, further ideas and a better understanding of the evaluative process from the evaluation and critique of one another's work. They debated why a piece of work did or did not meet the specified criteria and thereby seemed to sharpen their thinking and clearly articulate their expectations (Student Interviews, 1993). This process also contributed to the demystification of the teacher's tacit knowledge and their own understanding of what constitutes a quality performance.

Some students seemed to develop a clearer notion of performance standards by using the identified criteria to judge their own or their peers' work. The use of criteria helped students, to distance themselves and focus, during the evaluation of the work. For example a female student stressed the need "to give an honest opinion" when evaluating peers' work. She felt that "you can say this is why it is here, not because I don't like you. You have to be a lot more honest about yourself and be fair with other people." Student self-esteem appeared to be preserved when the focus was on the criteria and not on the student.

In knowing what is required and what standard is expected students would seem to have a target for which they can aim. A student acknowledged this outcome of identifying criteria when he suggested that student self-evaluation was a learning experience because: "You have to know what to look for when you're evaluating your work therefore you have to know what you're actually evaluating and what the content is about. But it is good when the teacher evaluates your work so you get a ... compromise and get a mark in between" (Student Interview, 1993). The value of external information to nurture the self-evaluative processes was emphasised by this student and others.

Clarity and specificity are properties of criteria identification and were valued by students in this process. By making the criteria explicit and engaging students in the process teachers were clarifying expectations and giving students more information than ever before in the evaluation process. There was, however, an associated dilemma which emerged for students and teachers and this was in relation to the evaluation of quality performances (See Chapter 5).

Interactive Dialogue

Another dimension of student self-evaluation which was valued by students and teachers was the interactive dialogue. This dimension seemed important to the learning process because during this interaction students confronted one another (or the teacher) and in so doing, clarified their thinking. Feedback and negotiation appear to be the main properties of this dimension.

Clarity and understanding occurred for student and teacher during the dialogue. The teacher seemed to gain more information from the student because an insight into his or her mind was offered. The student had to demonstrate understanding by making his or her thinking explicit. This was also true when students evaluated one another's work.

The students described the benefits of the interactive process and the impact on their own learning when evaluating their own or their peers' work:

“... sometimes you get into debates with them where they think you are wrong and you think they are wrong ... if you get with other people and debate things, then you start to get different opinions. ... one group gave themselves all top marks, and then you look at the marks that we gave them, we thought they shouldn't have given themselves the marks. We went over and reassessed, we have to mark our own work and then mark everyone else's, and everyone has to mark ours, and one group put all theirs in the ones and twos, and we thought that was wrong. We had a debate and eventually persuaded them to change. They did see why, but they were not exactly happy about it. They would rather give themselves an 'A' than 'C'” (Student Interview, 1993).

This interactive dialogue and consequent sharing of the thinking process is an important outcome of this form of peer and self-evaluation when compared with the teacher doing the evaluation on his or her own and handing the work back. The social studies teacher had noted: "For these students, using this process of evaluation, the grade was noticeably less important." The teacher explained that previously students looked only at the grade despite his comprehensive written comments.

In the social studies and English classrooms there were opportunities created for one-to-one, teacher-student consultation. This appeared to be a supportive environment where students were engaged in self-evaluation, confronted issues and outcomes, and considered future action and goals for learning. It was on these occasions that

students could also discuss, in confidence with the teacher, problems they were experiencing with their work. An appropriate classroom climate was fundamental to preserve the student's self-esteem and to enable students to engage in critique of their own and their peers' work.

The parents who were interviewed acknowledged the importance of interaction in relation to the evaluation of students' learning. At this school parents are encouraged to discuss their child's progress with teachers and are invited to attend parent-teacher interview sessions: "I think that it is necessary and important that every group has to contribute. Parents have to give the time to read through the report, speak to teachers. Teachers then have to converse with parents and students. It won't work unless it is a three-way approach" (Parent Interview, 1993).

Parents, teachers and students, who were interviewed, highlighted the fundamental role of feedback and negotiation in the learning process. Students wanted accurate feedback in the self-evaluation process, particularly about the grading system, to enable them to predict accurately their levels. "Otherwise when the teacher actually marks you properly then you get disappointed if you gave yourself an A when you are supposed to get a B. It would be better if you give yourself a B and they give you an A. Then you think you've gone up instead of down. You've got to know what you did wrong and fix it up" (Student Interview, 1993).

For another student the importance of feedback was highlighted when he stated : "Sometimes you can't understand why you got it wrong. You need the teacher to explain to you what you actually did wrong or else sometimes you are left in the dark about what the problem was. And then you don't know what's wrong so you don't know how to correct it" (Student Interview, 1993). The function of feedback in the formative evaluation process is emphasised by the student. To prevent trial-and-error learning the student needs feedback to improve the quality of his or her response (Sadler, 1989).

Negotiation is an important aspect of the self-evaluation process and occurs between students and their teachers. It was observed during the identification of criteria, in establishing contracts for learning and in conducting peer and self-evaluation.

Grading

Students indicated that they valued the insights they acquired into the grading process and the allocation of marks for particular criteria which resulted from their engagement in peer and self-evaluation. Wiggins (1992) suggests that involving

students in the task analysis and in devising scoring schemes builds ownership of the evaluation process. He believes that such involvement clarifies that judgements are not arbitrary and "makes it possible to hold students to higher standards because the criteria are clear and reasonable" (ibid, p. 30).

The final dimension of student self-evaluation was the grading of work. The deputy principal felt that it was important to demonstrate to students that teachers value student self-evaluation. To accomplish this required providing students with opportunities: to evaluate their own and their peers' work; and to grade their own work. In the social studies class this meant that groups decided on the distribution of the marks. If a group decided to distribute grades evenly among its members then the teachers intervened to highlight accountability requirements and the need to allocate grades according to each group member's contribution. Teachers intervened to offer their observations of group work and individual member's contributions. They negotiated with group members and encouraged students in each group to think about who had earned what marks. In the social studies classes students do tasks, read the assignments, grade them and have to defend their own work, usually by debating across the group. She recalled a student debate, to illustrate the point she was making. It was as follows:

"I think that this is worth a B!"

'Given the criteria, did you do that? And did you do that well?'

'No.'

'No! You didn't did you? So how could you possibly get a B?'

At the conclusion of this interchange the deputy principal recalled how the other student admitted reluctantly that the work probably was not worthy of a B grade.

Once students have evaluated the tasks, using the agreed criteria, the teachers record the allocated grade. Students indicated that it was important to understand why they were allocated particular grades. The process of allocating grades to their own and their peers' work had caused them to think about the criteria and to use these when evaluating work.

Parents wanted more information than that provided by informal evaluations, especially when their children's grades change. "I want to know a bit more... I think that the teachers made me feel that I probably could come and approach them" (Parent Interview, 1993). The safety net according to parents was the mid-term check when parents are informed about their children's progress. "The letter goes home to parents indicating if the student is on track or not. Although they are accepting their

own responsibility you are aware of whether or not they are achieving their aim and then you can offer support if required" (Parent Interview, 1993).

Supportive Conditions for Student Self-Evaluation

The supportive conditions for student self-evaluation have been analysed. First the student-teacher relationship appears fundamental. For this relationship to develop teachers seem to need professional development. The classroom context is also important and related conditions include: active learning, group work, increased student responsibility for learning and self-evaluation. The school environment is a further support which incorporates student involvement in school decision-making, focuses on learning outcomes, school values and structure.

The Student-Teacher Relationship

Student self-evaluation has to be recognised as valid by both teachers and students. In addition, self-evaluation has to be valued by the teacher as a skill to be developed and practised. The relationship between teacher and students would appear to be crucial. The deputy principal indicated that to help students take responsibility for evaluating their own work rapport, understanding and trust had to be developed. From her point of view, this relationship stemmed from:

"Your philosophy, intrinsically. What you believe about them. They want to learn, they want to grow, they want to be respected, they want to be loved, they want to have a place in the group, they want your approval, they want to be the best - all of those. You start with that, and they know that, and they pick it up really quickly. Then they are prepared to take risks with you. They know you are going to like and love them, care for them, dust them down and start all over again if they fall over" (Deputy Principal Interview, 1993).

The relations of trust developed from teachers modelling values and behaviours they were demanding of their students. In building the relationship there was increased negotiation and communication. Students were given decision-making responsibility in choosing ways of learning and demonstrating that learning. Students' voices appeared to be heard and acted upon in this teaching and learning context. They and their parents seemed to know their opinions were valued.

The values of honesty and fairness were important and acknowledged by students. They indicated that it was evident from the way they were being taught that teachers "trust us a lot more" but at the same time students were aware that trust was earned: "You have to earn the trust and do the right thing" (Student Interview, 1993). Some

students believed that self-evaluation has lead them "... to give your honest opinion. You don't say, that's good and not mean it." Another student commented: "I think it is good because you have to be more fair with other people's work as well as your own and you work harder for a good mark" (Student Interviews, 1993).

Parents also acknowledged the importance of the student-teacher relationship: "The responsibility issue sometimes gets frustrated in students when they are maturing and they feel confident to make their own decisions. In the past, that trust and initiative is dampened a bit because they must conform to set curriculum ... under this system ... if the students are showing willingness and initiative and responsibility, then the teachers are reflecting that by giving them more responsibility. It seems to be a two-way street. The more the student is given then the more the teachers place trust in their decisions and that encourages them to become stronger in their resolution" (Parent Interview, 1993).

Teacher Professional Development

Teachers at Arboret were involved in collaborative, professional exploration of alternative teaching and learning practices. Not all staff members were implementing these practices in the same way nor at the same rate. The expectation was that they would when they were confident to do so.

At a professional development day teachers who were not confident with student-centred learning wanted more insights into how such practice translated into action. Those teachers who had integrated the principles of student-centred learning shared their experiences willingly. The tension between teaching the curriculum content and introducing a new teaching and learning approach caused conflict for some teachers. For instance, "I find it difficult to resonate with student-centred learning principles because I'm still learning" and "I need more exchange of ideas, time to share, discuss similar problems and find solutions" (Observation, 1993).

These tensions associated with implementation, stress the importance of providing teachers with relevant, development opportunities to facilitate the risk-taking associated with the shift in their current teaching practice along the student-centred learning continuum. Teachers at Arboret were encouraged to identify development needs which included the skills of managing time and conflict, negotiating and communicating. This support appeared to be forthcoming.

Classroom Context

The staff who were interviewed, stressed the importance of creating the classroom environment to enable students to take responsibility for self-evaluation. The principal stated: "the crucial thing is that teachers actually get in there and do it, give students the opportunity, create the environment. ... It is not going to happen until you introduce the whole concept with the kids and negotiate it with them. ... To feel OK if it didn't work too well it doesn't matter." (Principal Interview, 1993).

The students perceived that it was in English and social studies classes, rather than mathematics or science, where they were most encouraged to take increased responsibility for their learning and to self-evaluate their work. Students explained how teachers of English and social studies had consulted them and listened to their preferences. "First of all we started off doing English in a student-centred way and after a few weeks we were counselled and asked which way we liked. Everybody enjoyed it. You don't really get pushed to do it but at your own level" (Student Interview, 1993).

At no stage did teachers move dramatically from traditional teaching to a more student-centred approach. It was implemented one task at a time. In one of the English classes observed, the teacher was gradually introducing the student-centred learning approach by allowing students to plan and organise their work. They were only self-evaluating in an informal manner. This teacher wanted students to experience the planning and organising of their work prior to taking responsibility for evaluating it.

Students, who were interviewed, believed that they took more responsibility for self-evaluation of their learning "by the teacher giving us more freedom, choice in what and how we learn." They demonstrated how they were given more freedom when they referred to local excursions where they were able to research in the town. One boy illustrated how his group had learnt from towns people's opinions by surveying the town on the proposed building of a by-pass. They discovered that the younger people were in favour of the by-pass while the older people were concerned because they feared the loss of business. The group designed the survey, video taped these experiences, showed the video and survey forms to their teachers and peers to demonstrate their learning. In this way they were conducting authentic evaluation tasks (Archbald & Newmann, 1988; Sizer, 1992; Wiggins, 1992).

Student engagement was evident in classrooms where decision-making, planning, consultation and negotiation took place between teacher and students. Self-evaluation requires student engagement in the decision-making associated with pacing, assessment, readiness, action planning and the setting of personal learning goals. Students declared that they felt challenged and engaged when they were given particular tasks: "In English we think harder because we do get to make up our own choices ... what we do to work and ... we get to choose what form of writing we do for the assessment" and "you get to make more decisions like where you want to work" (Student Interview, 1993).

Students appreciated opportunities to get into the community and carry out authentic tasks. These students' comments sum up their understanding of active learning: "Instead of doing everything with pen and paper you do a lot more talking ... instead of just writing ... more discussions." Another student commented: "Yes, it is a lot better than the teacher dictating to you what you can do and having set things to do. Teachers usually pick essays and more essays" (Student Interviews, 1993).

These students did not feel that they learnt from lectures. They seemed to prefer choice and active engagement. For instance, "[i]n social studies you can do what you want, for surveys you can go and ask other people, instead of just writing it out of books, it keeps people interested. For science you just do the same thing every single day, it gets boring after a while" (Student Interview, 1993).

"The rationale for student-centred learning is students being accountable for their learning process" (Parent Interview, 1993). This parent described how active engagement would help reinforce and integrate the learning for students: "The more activities that they can do to enforce the students' learning process I think is good for the student" (Parent Interview, 1993).

Group work was another aspect of the learning environment which students found challenging, promoting choice and assisting them to take greater responsibility for their learning. For example: "You get more freedom, in choosing what you want to do and when you are ready for it. It gives you enough time to study" (Student Interview, 1993). The social studies teachers asserted that knowing how a group functions was important learning for students. In their classes groups reflect the class ratio of girls to boys, good to poor writers, readers, researchers. The groups were formed collaboratively with teacher and students identifying the criteria. These teachers talked of group processes and phases with their students so that they were aware of what to expect when their own group reached the 'storming' or counter

dependence phase. This discussion highlighted the teachers' need to be comfortable with managing conflict. The social studies teachers team intended incorporating some group work theory into the content of the 'Conflict and Cooperation' unit of the social studies syllabus.

The administrators and teachers at Arboret have made a concerted effort to provide students with more opportunities to take responsibility for their own learning which appears to be a necessary condition for the adoption of student self-evaluation. If students are to value self-evaluation then it appears that it needs to be implemented in a classroom context where independence and responsibility are fostered. The principal supported increased student responsibility for their learning. She encouraged them to solve the emergent problems by listening to their suggestions for resolution rather than taking it on herself. Teachers believed in increased responsibility for learning and to achieve this as a valid student learning outcome they also listened to their students and provided them with opportunities to have their say, which included: "Their thoughts, how they like to work, what they find beneficial, the type of exercises that they find useful in terms of promoting their learning, the exercises that they find least useful" (Deputy Principal Interview, 1993).

Changing one's teaching practice and integrating the principles of student-centred learning was not an easy process as this teacher recognised: "It's a lot harder to teach students to make choices, to negotiate, to communicate confidently with each other without beating each other down or arguing with them. It's a lot harder to teach those skills, to model those skills. None of us were trained that way and so it's about building a relationship" (Teacher Interview, 1993).

Some students indicated that they understood the need to be responsible for their own learning. They confirmed that the teachers had helped them achieve increased responsibility through:

"... doing work this way. (In this instance the student was referring to the social studies lesson.) You learn to work more independently as well as with a group and you have to do work. You've got the teacher there, but you don't usually use them, you are relying on yourself and the group to do the work. So you have to get the work done yourself and not depend on the teacher. Because one day the teacher is not going to be there, like when you grow up and the teacher's not there, you'll turn around and see where the teacher is to help, but [he or she] won't be there and you'll be buggered if you don't know how to do it [learn for] yourself" (Student Interview, 1993).

Students elucidated that teachers, through providing opportunities for group work and choice, were allowing them to take increased responsibility for their learning.

School Learning Environment

The school learning environment in this analysis includes: staff expectations for student involvement in decision-making, intended learning outcomes for students and school values and structures which support these learning aspirations. These properties appeared to be important in the wider context of supporting and reinforcing changes to the teaching and learning practices.

The principal indicated that students' involvement in decision-making was expected and a more direct communication link with the school community was possible with the establishment of the student council and student consultative committee (See Specific Context above). Students were given responsibility for school decision-making and for the consequences of those decisions. For example, the out-of-bounds areas were opened up to students and they took responsibility for monitoring their use.

The school's involvement in NPQTL caused the school community to reflect on student learning outcomes and how to improve these. Focusing on student learning outcomes motivated the school community to be "reflective on a whole school basis" (Principal Interview, 1993) and inspired change efforts in pedagogy; the school structural, organisational and cultural levels.

The school values as articulated in policies and as demonstrated at parent information meetings, staff meetings, development days and observations of classroom and school practice include: non harassment, 'no put downs', a safe environment, a love of learning, collective problem solving, student rights, conflict management and opportunities for increased student responsibility for learning. The creation of a safe and happy environment, empowering students to problem solve, to resolve conflicts appropriately and to learn independently were values articulated by the school community. The principal believed that 'good' teachers wanted students to be more responsible and independent. She believed that if a school community was genuine in adhering to these values then it would require an examination of how and what was being taught (Principal Interview, 1993).

Arboret created a collaborative organisational and work structure which incorporated democratic principles. A review of existing positions resulted in a more equal

spreading of responsibilities. Different people's strengths and leadership qualities were recognised and engaged through the establishment of this flatter structure. The small nature of the school necessitated sharing. As the principal explained: "you have to be prepared to teach in one or two different areas and Heads of Department even cross areas. I shudder when I think of some of the metropolitan schools, where they have a territorial base and they don't want to give it up" (Principal Interview, 1993).

Constraints on Student Self-Evaluation

In the implementation of whole school pedagogical change of student-centred learning, (which incorporates student self-evaluation) the constraints associated with time, the change process, and group dynamics emerged.

Lack of Time

A major constraint was time. Teachers wanted more time to share ideas and talk about issues such as how to implement the student-centred approach to teaching and learning in their classrooms. "I need more exchange of ideas, time to share, discuss similar problems and find solutions (Observation, 1993).

Other time-related constraints were imposed by the curriculum structure and timetable. Some teachers indicated that changing their teaching style was time-consuming and to incorporate new strategies was stressful because they felt pressured 'to cover' the set curriculum in a given time frame. Others felt a one hour teaching block was an inappropriate framework for 'true learning'.

The Change Process

The change from traditional didactic teaching to a more student-centred approach required teachers to learn about this approach and then to learn how to implement it. Teachers were challenged to share their power with students, to give them freedom to choose topics, ways of researching, learning, methods of demonstrating their learning and to hand them over more responsibility.

Teachers felt they had to change the classroom culture so that students were no longer dependent on them for judgements about the quality of their performance. Teachers shared their rationales for change in teaching practice and evaluation processes. Students' expectations needed to change. A computing skills teacher commented that she had "to get rid of the myths such as you're the teacher so you tell me if that's right!" (Teacher Interview, 1993). Teachers had to make the standards explicit and identify criteria for evaluation. They also had to provide opportunities for students to learn the skills of evaluation and critique.

A feeling of 'no control' was experienced by teachers. For example: "It's like flying in the dark, you can't always see where you are going and even though you know where the landing field is, you can't actually see it at times" (Teacher Interview, 1993). Change in teaching practice is accompanied with anxiety and stress. This was true particularly for those teachers who had always taught in a particular way to achieve a known outcome. Teachers who were changing indicated that they had to have faith in the process and needed to find a comfort with such change.

For the administrators a major tension was harnessing parental support in a context where staff are implementing changes at varying degrees and rates: "Getting all your parents right behind you ... working with the staff and wondering whether they will ever like or get to the way that is wanted" (Principal Interview, 1993).

Students experienced tensions with the change. For example, some who had achieved academic success prior to student-centred learning, could not understand the rationale for change and feared their grades might fall. The deputy principal indicated that for these students the "main fear was my grades might fall and as I am getting A's and B's now I am quite happy for there to be no change" (Deputy Principal Interview, 1993).

Some students expressed frustration with the different teaching strategies. Not all teachers were adopting a student-centred approach. For example, "The differences in class, you get used to one and then have to change, it is difficult to adjust to" (Student Interview, 1993). Some students found the increased responsibility for their learning stressful and had difficulty adapting. "The work that you do is mostly put on yourself, like the teachers don't help you that much, and it is mainly during English" (Student Interview, 1993).

In implementing student self-evaluation it was important for students to know that other students' views would not be their final grade. The teachers guaranteed that they would grade everything again after peer and self-evaluations. In one teacher's words: "I would review it, and the grade wouldn't solely rest on how other students saw them." He believed that students would be too influenced by their feelings towards one another: "He doesn't like me so he's going to give me a lousy mark" (Teacher Interview, 1993).

The parents expressed a lack of certainty with the changes. They felt uncomfortable with the terminology and believed it was misleading because the teacher's role was not made explicit: "I think ... the term student-centred learning puts people off-side

because they didn't understand the concept and felt that it wasn't leaving a place for the teachers and the students were having to develop their own curriculum to teach themselves. Responsibility and initiative are the highlights of it" (Parent Interviews, 1993).

Group Dynamics

Managing the necessary conflict which is part of change (Lieberman et al., 1991, p ix) and the establishment of collaborative cultures where interdependence is valued (Fullan & Hargreaves, 1991) required staff to develop new skills and understandings about groups. As the principal indicated: "We have become better at recognising where things are becoming dysfunctional, we are more aware as a group. When the problems arise, we can deal with it, without feeling threatened ... yes we have actually grown as a staff" (Principal Interview, 1993).

Working in groups produced tensions for students. For example conflict emerged in decision-making and reaching consensus. Students commented: "Working in groups sometimes someone doesn't agree. It is still an advantage because you talk to everyone but when you don't agree, you don't want to disagree with each other" and: "We sometimes have clashes, they don't like what we are doing, and we don't like what they are doing" (Student Interview, 1993).

Further tensions emerged during the allocation of grades according to group member participation and contribution produced: "The thing I don't like about student-centred learning is the group work. You're trying to work and some kids are mucking around and they get all the grades and not doing anything for it. And also if they are mucking around you get distracted" (Student Interview, 1993).

LEARNING OUTCOMES

Increased responsibility for learning through student-centred teaching and student self-evaluation resulted in these perceived learning outcomes.

Some students were involved in planning, organising and evaluating their work. The thirty students interviewed believed that self or peer evaluation was educative. They believed that they identified their own mistakes through comparisons with their peers' work, gained a better understanding of how others work through hearing, reading and discussing different points of view. They indicated they learned from reflecting on their own and their peers' work and acquired skills from one another. Students suggested they were pressed to think from the teacher's perspective when evaluating

their work and had a better understanding of why particular grades were allocated to groups for the work completed. The debates which arose were sometimes stressful but 'enjoyed' because students were forced to defend their point of view: in one student's words "you learn heaps from that".

These learning outcomes were confirmed by the teachers. They valued student peer and self-evaluation and suggested teamwork and more challenging work resulted. One teacher stated: "the students believe that they have never worked harder: the challenge" (Teacher Interview, 1993). Teachers felt students were more confident with their own learning and clearer about how they learned best. Students had been given the opportunity to rank their skills and demonstrated that they were capable of self-evaluating the areas that they felt needed more attention. The social studies teachers observed that students in their classes were more confident in seeking assistance when needed, were more responsible in moving around (using the library and the computer rooms during the lessons), and more independent in their use of resources such as public libraries and other teachers. They felt students found it non-threatening to try something new. "They appear to be getting started and getting into greater depths of learning more easily. That is the most exciting thing that you can see in a relatively short period of time" (Teacher Interview, 1993).

It was from the debriefing session with the students after they had conducted the self-evaluations that teachers were able to appreciate the outcomes from the students' perspective. Students indicated to their teachers that they learnt new ideas from evaluating other students' work: "I only considered this one way of setting out, I never ... chose the best one. I got this idea in my head and I went ahead and did it. What I've learnt is that there are lots of ways of setting out" (Teacher Interview, 1993).

A fundamental principle that underpins the teaching and learning at this school is democratic and collaborative organisation. This principle was incorporated in some classrooms through the organisation of group work. In social studies students self-selected into groups. Many students commented on group work and some felt they worked better because it was challenging, more interesting, fostered collaborative learning, and provided opportunities to take responsibility for their own learning. For example: "Yes, we can work better in groups, we manage to work together more. It is more interesting, because you get to do what you want, instead of writing, writing, writing! You can do different things, like [make] videos and you get the choice too. That's what makes the difference." And another student offered: "You can work by yourself and you can also get other people involved in what you are doing" (Student Interviews, 1993).

At this school students are expected to set personal goals, make action plans and then self-evaluate their progress. At the commencement of second term students were observed setting themselves goals in all subjects. After self-evaluating their own work students considered how they could improve and then set learning goals. A student explained how she discussed her grade with the teacher and her aim of wanting to improve her essays. During the previous term she self-evaluated her performance in essay writing and identified her need to do more work in class. "Learn to concentrate more" (Student Interview, 1993).

Do these learning outcomes and other substantive themes that have accompanied Arboret High School's implementation of the student self-evaluation process occur in differing settings in another education system? It is to Grove Further Education College located in suburban London that I will now turn for further illumination of the processes of student self-evaluation.

CHAPTER FIVE

GROVE FURTHER EDUCATION COLLEGE:

Where is the evidence ?

"I don't call what we are doing a risk. I actually *believe* in what we are doing. I hope this is a different way for students to demonstrate what they can do. It's their course, their learning and they have got to take some control."

(Lecturer, Grove Further Education College)

INTRODUCTION

Grove Further Education (FE) college in suburban London was chosen for the second case study because it was a site where processes of student self-evaluation could be examined in a detailed and focused manner.

During 1993-94 the department of science and mathematics of this FE college was involved in the pilot program for the Advanced Science General National Vocational Qualification (GNVQ). The Advanced GNVQ is designed to be equivalent to two General Certificate of Education (GCE) Advanced (A) Levels and core skills. The key objective of GNVQs is to offer to the increasing number of students staying on in full-time education beyond the age of 16, a high-quality vocational alternative to the academic GCE A Level and the General Certificate of Secondary Education (GCSE) qualifications.

A broad based vocational education is the intended outcome of GNVQs. Students are expected to attain the basic skills and body of knowledge which underpin a vocational area as well as a range of core skills. The combination of vocational and core skills provides for student progression either to further or higher education or into employment and further training.

This chapter presents the aims and then the broad and specific contexts of this case study to locate Grove FE college in the English education system and to highlight the features of the Advanced Science GNVQ pilot program.

An overview of GNVQs, highlighting pertinent aspects for this case study, follows. This incorporates a detailed description of the unit structure, a synthesis of collaborative curriculum and assignment development, and GNVQ assessment and use of grading criteria. Student self-evaluation processes are then presented. These

include: the portfolio (an example of formal student self-evaluation), a snapshot of a link period (where both formal and informal types of student self-evaluation were observed) and a portrayal of the student's perspective of the self-evaluation process as synthesised from student interview data.

The substantive themes of: pedagogical change, dimensions of the student self-evaluation process, supportive conditions and constraints form the analysis section of this case study.

AIMS

The department of science and mathematics of Grove FE college was involved in piloting the Advanced Science GNVQ which provided students with the opportunity to take responsibility for their learning and for evaluating their own work. Students were required to demonstrate self-evaluation skills which form a fundamental part of the qualification. For example, in determining the award of merit or distinction, students at this stage had to demonstrate through their portfolios that they had met the criteria set for the grading themes of planning, information-seeking and handling and evaluation³. At the time of this research it was only at Advanced level that students self-evaluated to demonstrate they had examined the implications of particular courses of action and to justify particular approaches to tasks or activities.

The science and mathematics department was also participating in the Nuffield Science in Practice project which facilitated support and networking opportunities with other colleges and schools piloting the Advanced Science GNVQ. A significant feature of Grove FE college was the team approach adopted by these scientists and the integrated teaching which demanded a collaborative approach to curriculum and assignment development. A student-centred approach to teaching and learning was advocated and monitored by the course coordinator.

Students were responsible for their own learning and were required by the grading theme of self-evaluation to demonstrate these skills. In pursuit of a deeper understanding of self-evaluation processes it seemed important to analyse their implementation where they were expected to be formalised into teaching and learning practice. Given the formal requirement to provide students with the opportunity to self-evaluate, the aims of this case study were to:

³ In September 1994 an additional grading theme of quality of outcomes was included to address the need to reward the quality of the work produced.

- analyse the processes and procedures for student self-evaluation;
- examine how lecturers integrated student self-evaluation into their teaching;
- identify if student self-evaluation was valued by students and lecturers;
- find out conditions which constrain or support student self-evaluation.

BROAD CONTEXT

The broad context provides the background to this major educational reform. The rationale for introducing GNVQs and the philosophical principles which underpin the course follow. Particular attention is devoted to the procedures for assessment, certification and grading because of their relevance to the student self-evaluation process.

Background

The Government's White Paper 'Education and Training in the 21st Century' (May, 1991) outlined the Government's intention for GNVQs and National Vocational Qualifications (NVQs) to replace other vocational qualifications as the main national provision for vocational education and training in England, Wales and Northern Ireland. A GNVQ framework encompassing Foundation, Intermediate and Advanced units in 14 areas was to be developed. A detailed description of the background, structure, design of the Advanced GNVQ and core skills can be found in Appendix 1.

The introduction of GNVQs was a major educational innovation and during the pilot program issues of change and uncertainty emerged. The relevant national agencies, Government departments and the awarding bodies, worked together to establish GNVQ standards. It was also intended that they would collaborate to provide guidance, staff development and curriculum support, though this did not happen.

There were difficulties and tensions which accompanied the change and these are elaborated upon in the substantive themes section of this chapter. It needs to be stressed that while the analysis and writing of this chapter took place, modifications were being made to the testing, assessment and grading procedures. For example, a fourth grading theme was introduced and had consequent implications for the grading processes. These changes added complexity and confusion to the teaching and learning context, for the teachers and their students and for myself, as researcher.

Principles of GNVQs

A vocational and training philosophy underpins the GNVQs. This has been described by a researcher and evaluator of the Science GNVQ specifications as follows:

"It's a philosophy that values more than just an academic understanding. It views success in life as having the skills to solve problems, handle information and deal with concepts as well as understand them. You have to manage yourself and be resourceful, independent and sort out your own problems. GNVQ meets a wider range of needs and therefore requires a different assessment and teaching system" (Interview, 1994).

Students are given responsibility for accumulating a portfolio of evidence to show they understand the subject, content knowledge and their capability to carry out tasks. Skills of planning, organising and evaluating the work are paramount. The emphasis is on competence. It is assumed that what the student knows or understands can be inferred from what they do. The process by which the student achieves competence and the time taken to achieve it is not considered as important as successful performance. This does not imply that the development of core or process skills is neglected.

The three mandatory core skills of communication, application of number and information technology form a compulsory component of the award. The intent is that students awarded GNVQs will have the necessary qualifications to continue study, or the core skills to commence employment. An underlying principle is that every employee or student needs these skills at a certain level to help transfer to other educational or work settings.

The pedagogical implications of such a philosophy highlight the need for change on both the part of student and teacher. A student-centred learning approach has been described as fundamental to the achievement of the above outcomes. In describing the more open learning system that is needed a GNVQ evaluator described his interactions with teachers:

"When I talk to teachers about it I always try to slip in the word coaching. That you have to learn how to coach - that's a closer idea of the role that you should be playing. If you think how a coach trains an athlete the coach doesn't do anything; the athlete has to do it. The coach knows what the athlete has to achieve and how they might best achieve it. ... It is something that teachers still have to create. It's hard for them because it means losing control."

The inclusion of the acquisition of core skills as mandatory for GNVQs and the associated pedagogical changes have implications for the grading and assessment of the award.

Assessment and Certification

A fundamental premise of the GNVQ course is that students take responsibility for their own learning and assessment. Students understand the expectations of the course by developing individual action plans for assignments and by using the unit specifications in their planning. The unit specifications give the performance criteria, range statements and evidence indicators for each element in the unit. Students use these to develop plans of what has to be done in each assignment and the order and date by which this has to be achieved. A full description of the process is given below in the section on GNVQ assessment and use of grading criteria at Grove (See page, 117).

The GNVQ assessment covers all of the outcomes listed in each unit. These explicit performance criteria provide a framework for lecturers to plan their teaching. Outside evidence from other courses, previous achievements or life experiences can be used, provided they are authenticated. Assessment evidence is obtained from projects and assignments completed within the course and from external tests.

The original intent was not to have external assessment or grading of results. Government requirements, however, led to the imposition of these:

"Although the NCVQ opposed any written external assessment of GNVQs, the Government has required such tests. But the assessments, made up of short-answer questions, do not count towards the actual award itself.

Similarly although the NCVQ opposed any grading of results, the Government insisted on three grades being awarded: distinction, merit and pass" (Smithers, 1993, p. 17).

As a consequence of these Government requirements and the resultant "hybrid assessment system," tensions for teaching and learning have emerged. A GNVQ principal research and development advisor elaborated:

"The GNVQ is a different structure as an award. ... Far more than conventional exams it is an attempt to be criterion referenced in that you have to show mastery in units and you have to get all the units before you get the pass. In each of the mandatory units you would have external tests ... there is

also grading; pass, merit or distinction, which does not sit well with the criterion referenced aspect and was an afterthought imposed on it" (Interview, 1994).

An analogy with the driving test has been used to contextualise the GNVQ assessment of standards. For example, competent drivers pass the test if they demonstrate that they can drive safely, independent of guidance. In the GNVQ context students must demonstrate responsibility for their own learning through the management and compilation of a portfolio of evidence. The need to answer questions about the highway code to check that the novice driver has mastered the underpinning knowledge is likened to the GNVQ mandatory unit tests.

Students are encouraged to take a leading role in assessment by collecting and presenting evidence to show they have covered all performance criteria for each unit. They are responsible for maintaining and organising the portfolio so that their overall achievements and the quality of their work can be observed by those inside and outside the college. The materials in the portfolio form the primary evidence for assessment. The portfolio fulfils a role in certification and constitutes important evidence for university entrance, progression into work or further training. A student's portfolio includes: written reports, charts, records, studies, artefacts such as photographs of performance, tests and witness testimonies (written evidence from direct observation).

Internal verifiers are responsible for checking internal assessment records and for overseeing assessment within the college. External verifiers (who act on behalf of each awarding body) visit the college to examine assessments and to establish if appropriate processes and procedures are in place.

It was intended that NCVQ, together with the awarding bodies, their verifiers and assessors would develop a range of exemplar materials to support assessment.

"These will include examples of students' work to illustrate the standards needed to meet a unit's requirements and to show what evidence meets a merit or distinction grade" (NCVQ, 1993a, p. 12).

Practitioners expressed their need for such support throughout the pilot program. Given the grading theme of evaluation and the associated criteria for merit and distinction awards, the lack of exemplars constitutes a constraint discussed below (See page 140).

Internal assessments are complemented by externally set written tests for each mandatory unit. A college can request tests throughout the year to fit with its timetable or rate of student progress. In 1993-94 there were four testing occasions. The pass mark on the tests is high (normally 70%) as students must demonstrate that they have mastered the knowledge, understanding and principles underpinning each unit. Students can sit the test as often as it takes to reach the required standard. External tests are linked to units and each unit can be assessed and certified separately.

Grading

Only students who achieve all the required units for the award of a GNVQ and qualify for a pass can be considered for the grades of merit and distinction. The award of these grades is based on an assessment of the quality of the overall body of work presented by students in their portfolios. Units are not separately graded and it is expected that students are given regular feedback on the extent to which their work meets the criteria for merit or distinction.

The final grade which the student attains is based on judgements made throughout the GNVQ course and is confirmed when all the GNVQ requirements are met.

"If at least one third of the work meets the grading criteria, the student will be awarded the relevant grade. Students can be awarded a merit grade if a third or more of their evidence meets all the merit grading criteria" (NCVQ, 1994a, p. 8).

The same principle applies for the award of a distinction grade.

The grading criteria focus on students' ability to plan, to seek and handle information, and to evaluate approaches, outcomes and alternatives. A fourth grading theme, quality of outcomes, was added in September 1994. The rationale for this addition was "... while the first three themes are aspects of the quality of work produced by students, certain features of high-quality work may not be covered. ... The new theme picks up on other aspects of quality work that might otherwise go unrewarded" (NCVQ, 1994b). During the pilot program lecturers identified the need to include the evaluation of the quality of the learning outcomes as well as the processes and competencies involved in learning (See page 110).

The development of a fourth grading criteria relates to Sadler's (1985) general theory of evaluation as applied to educational phenomena. He states "that to specify in advance a set of criteria by which something is to be judged is self-limiting. While any set of criteria for educational evaluation should in general be made explicit, complete prior specification is undesirable in principle. The case for this assertion rests on four grounds:

- a) decompositions of value principles are always partial;
- b) criteria emerge from experience and cannot be deduced from value principles;
- c) not all criteria can be made explicit; and
- d) there are criteria for using criteria" (p. 296).

The fourth grading theme of quality of outcomes did emerge from the lecturers' experience of the GNVQ Advanced Science Program and lecturers expressed their difficulty in specifying explicitly all criteria for the evaluation of quality performance outcomes.

	merit	distinction
Evaluating outcomes and alternatives	Student judges outcomes against original criteria for success; identifies alternative criteria that can be applied in order to judge success of the activities.	Student judges outcomes against original criteria for success and identifies and applies a range of alternative criteria in order to judge success of the activities.
Justifying particular approaches to tasks/activities	Student justifies approach used; indicates that alternatives were identified and considered	Student justifies approach used, basing justification on a detailed consideration of relevant advantages and disadvantages. Alternatives and improvements are identified. (NCVQ, 1994b, p. 25)

FIGURE 4: *The grading theme of evaluation and the criteria for merit and distinction awards.*

The evaluation grading theme for the GNVQ program is concerned with the way in which students review retrospectively:

- "• the activities they have carried out,
- the decisions they took in the course of work
- the alternative courses of action they might have taken and
- the implications of particular courses of action" (ibid, p. 20).

The evaluation theme for the award of merit or distinction identifies two aspects of: the evaluation of outcomes and alternatives and the justification of particular approaches to tasks/activities. It will be noted that for the award of merit and distinction it is expected that students will identify alternative criteria for themselves.

Students are provided with the grading criteria for the award (See Figure 4) in addition to the unit specifications which they use to monitor and evaluate their own success.

SPECIFIC CONTEXT

The specific context provides a college profile and details about how the Advanced Science GNVQ course was offered to students in the pilot year. Information about students and lecturers is included. Grove's involvement in the Nuffield Science in Practice project is an idiosyncratic feature which is described fully.

College Profile

At the time of this research Grove had a student population of 5,310 students, two thirds of whom were part-time. There were seven departments including: business studies, community studies and creative arts, engineering, environmental studies, humanities, language and education studies, adult education training, and science and mathematics.

This case study is concerned with the lecturers in the science and mathematics department and their students who were enrolled in the Advanced Science GNVQ pilot program. The students studied chemistry, biology, physics and electronics. They were given opportunities to develop core skills of information technology, application of number and communication. These subjects and skills were taught by the team of lecturers in an integrated way. There were five lecturers: a chemist, a physicist, a biologist and a mathematician (who was the course coordinator) and another lecturer who had responsibility for information technology. The latter two shared the responsibility for communication skills. There were 15 students, seven males and eight females. By the end of the first year two students decided to leave after considering the feedback from their teachers and the appropriateness of the course in fulfilling their needs. This issue is discussed below (See page 141).

Nuffield Science in Practice Project

Grove was involved in the pilot program for the Advanced Science GNVQ in collaboration with the Nuffield Science in Practice project. The project was based on

10 regional working groups, consisting of over 80 colleges and schools, most of whom were piloting GNVQ science in the 1993-4 academic year.

The Nuffield Science in Practice project hosted an initial series of meetings on planning for the start of GNVQ science, preparing for student induction, program and assignment development. A model for induction, resources guide and sample assignments were developed. For Grove, and many others, this constituted the major support for implementation. More meetings were convened which incorporated exchange and discussion of: assignment materials; problems and benefits of advanced GNVQ Science as an entry qualification for higher education; sharing of experiences of the first round of mandatory unit tests and comment on the existing mandatory specifications.

Teachers were frustrated with the first round of the Business and Technology Education Council (BTEC) and the Royal Society of Arts Examinations Board (RSA) mandatory unit tests because the design of the tests, and the type of questions included, did not match their experience of the ranges and expectations of the course. Feedback and revisions needed to the specifications were given for an evaluation which was being conducted.

At the March 1994 meeting, progress reports were given on the revision of GNVQ Advanced Science specifications and the development of the project's intended publications. These included: *Teacher's Guide to GNVQ Science*, assignment packs and student's books at Intermediate and Advanced levels. Discussion concerning the latter included:

"The feeling is that students actively resist taking responsibility for their own learning. Many are finding that didactic techniques are more effective in the first year of the course and that 'discovery' methods only begin to become popular in the second year. ... it was stressed that active learning techniques must be introduced as early as possible (as part of induction) and gradually stepped up during the first year if there is to be any hope of moving effectively into student-centred learning in the second year" (Nuffield Science in Practice, 1994a, p. 2).

Participants reported, that while the second batch of tests were better, improvement was needed to contextualise the questions and relate them to students' experience at this level. The 70 per cent pass rate for these tests made further improvement imperative.

Lecturers were also able to feed back comments on the advanced assignment design intended for publication. Pertinent comments for this study were the need for guidance on grading criteria and guidance to students on what was being looked for in the evaluation process. A session which involved the sharing of assignments and discussion about the assessment and grading tasks followed. Some key issues emerged:

"The grading criteria, while very useful ... rather missed an essential 'traditional' feature of science teaching: 'does the student understand a particular piece of science'? It is quite possible, in some cases, to do the performance criteria specifications, cover the range but still clearly not grasp a piece of fundamental science. Staff currently use professional judgement here to make students resubmit evidence so that they are satisfied that the points have been taken. ... technically this is difficult to justify since it is not in the specification. With little subject-specific verification and greater pressure to produce results, in terms of student pass rates, this 'internal' professional concern about understanding could easily be eroded. There is a counter-argument that since this qualification is different and is primarily concerned with work competencies, this issue should not concern us. Nonetheless, most people felt uneasy about it" (Nuffield Science in Practice, 1994a, pp. 4 -5).

An associated problem which emerged was related to the specification of the grading criteria. "Currently, no credit can be given for students with good practical, cognitive or thinking skills *if these fall outside the current three grading criteria.*" (ibid, p. 5). This concern was illustrated by a hypothetical instance where students prepare a sample of aspirin with the outcome that some students produce pure samples at high yield while others produce highly impure samples at low yield. This scenario, it was suggested, demonstrated that some students are more highly skilled in laboratory terms than others. At that stage, these higher skill levels did not seem to attract any credit and this was considered to be unfortunate.

The distinction that Sadler (1985) makes between criteria and standards seems pertinent here. Sadler defines criteria as the "dimensions relevant to an evaluation" and standards as "particular levels used as reference points" (p. 285). Maxwell (1993) discusses Sadler's distinction further: "the terms 'criteria' and 'standards' are not always distinguished, even in discussions of assessment, though it is useful to do so ... *Criteria* are the various characteristics or dimensions on which the quality of student

performance is to be judged. *Standards* are the levels of excellence or quality applying along a developmental scale for each criterion" (p. 293).

Sadler (1985) states "criteria and standards constitute two of the key elements in evaluative discourse, [and] it is possible for reliable judgements to be made even when no criteria are used explicitly" (p. 286). He goes on to add that in such cases the evaluations are only valid to the extent that the evaluator is accepted as authoritative and competent.

Students were involved in the evaluation of their own work and did not have the tacit knowledge of quality performance outcomes of their lecturers it was therefore essential that the fourth grading theme of quality of outcomes was introduced. This grading theme connects with Sadler's notion of a hierarchical structure to organise criteria. He suggests that any given criterion can be expressed either as a component of some higher-level criterion or in terms of a number of lower-level criteria. Higher-level criteria have been described as axiological or 'zero-level' criteria. They are in fact 'underlying values' or 'values proper'. Axiological criteria have to be decomposed for their substance to be known. That is, criteria are necessary in order for the content to be specified. Sadler continues "axiological values develop only in the context of experiences, traditions, and evaluation, that is from the ground up. Although the label of an axiological value is compact and convenient, it applies to a rich and generalised idea whose power lies in its ability to transcend particular cases. In any concrete situation, a meaning appropriate to the context has to be generated" (p. 290).

In the GNVQ context the grading theme of quality of outcomes is in fact an example of axiological values. Teachers need to understand that these higher-level criteria develop 'from the ground up' and that a meaning appropriate to the context has to be generated. Students too need to understand this concept if they are involved in self-evaluation. The implication is that teachers need to explain to students why the quality of an outcome or performance is better than another and this can best be done in relation to the context in which the notion of quality is developed. For example, in the above hypothetical instance where some students prepare pure samples of aspirin at high yield and other students produce samples at low yield, the latter group of students in particular, need to know that they are not producing the quality of outcome which is valued.

In the April 1994 issue of the Nuffield Science in Practice Newsletter the new specifications for GNVQ Science were published. It was stated:

"[t]here can be no doubt that GNVQ Science Advanced is a challenging qualification. Not only do students have to apply scientific ideas as they plan investigations, solve problems and develop practical skills; they also have to increase their knowledge and understanding of science by an order of magnitude. Planning an effective learning program for the revised specifications will be no easy task" (Nuffield Science in Practice, 1994b, p. 3).

By September 1994 participants in the working groups were informed that the project's Intermediate assignments and book had been published and the Advanced pack of assignments had been produced. Such resources were intended to help teachers and lecturers design and organise the learning programs to meet these specifications.

STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES

To understand fully student self-evaluation processes as they apply to GNVQs, it was important to describe the development processes which accompanied implementation. The GNVQ unit structure is described and an illustration of the way in which the lecturers at Grove collaborated to use these specifications, to develop curriculum and assignments, follows. Application of the GNVQ assessment and grading processes at Grove is also described.

Use of GNVQ Unit Specifications at Grove

The adoption of the GNVQ unit specifications at Grove was developmental. This development process provides an insight into what took place, behind the scenes, of the student learning setting where the portrayals and snapshots were captured.

Each unit of work occupies 60-70 hours of students' work, equivalent to five to six weeks' work. The unit structure consists of a unit title and a series of elements. Each element is broken down into performance criteria, range statements and evidence indicators. The performance criteria indicate what the students have to achieve. The students must demonstrate in their portfolio of evidence that they have met every performance criterion. Students also have to demonstrate achievement of those performance criteria across the range. For example, the range statements for Element 5.1 (See Figure 5) include: factors; body; effects; efficiency; safety features and collisions. The evidence indicators suggest to teachers, ways in which performance criteria and the range might be achieved, and identify what the student needs to do. For example, Unit 5 of the Advanced Science GNVQ program is titled 'Energy Transfer' and consists of three elements: Element 5.1, Investigate energy and motion;

Element 5.2, Investigate energy transfer systems and Element 5.3, Control energy applications. To demonstrate the nature of the performance criteria, the range and evidence indicators for Element 5.1 (Investigate energy and motion) will be described fully (See Figure 5).

<p>Performance Criteria</p> <ol style="list-style-type: none"> 1. factors affecting the motion of a body are identified; 2. effects of changing factors which determine motion are predicted; 3. the efficiency of a moving body is assessed; 4. safety features which protect a moving body during the collisions are explained. <p>The range includes:</p> <ul style="list-style-type: none"> • factors: force, mass, impulse, work, power, time of impact; • body: vehicle, person; • effects: velocity, acceleration, deceleration, momentum, potential and kinetic energy, work, power; • efficiency: friction, conservation of energy; • safety features: structural, sensory; • collisions: moving/ moving, moving/ stationary. <p>Evidence indicators</p> <p>Reports of investigations into two moving bodies. In each case, the factors which affect the body's motion should be identified and how its motion may be changed should be explained. The reports should include an assessment of the body's efficiency and of those safety features which protect the body during collisions.</p> <p>Evidence will also show that the candidate understands the performance criteria in relation to all the items in the range. The unit test will confirm the candidate's coverage of the range (NCVQ, 1993b, p. 24).</p>

FIGURE 5: *Performance criteria, range and evidence indicators for Element 5.1 (Investigate energy and motion).*

The lecturers used these unit specifications (performance criteria, range statements and evidence indicators) to develop curriculum and to construct assignments so that students could demonstrate performance throughout the identified range of contexts and breadth of understanding. This caused tensions and problems in the implementation of the GNVQ pilot program because each unit element was quite

broad which meant that writing and development of materials to support them required a major effort. The Nuffield Science in Practice Project provided some of that support.

The activities and assignments planned by the lecturers provided students with opportunities to meet the grading criteria, which at this stage included: planning, information seeking and information handling and evaluation. Students had to demonstrate independence in their learning which was defined as:

"Working independently means that students make many of the decisions about what to do and how to do it themselves. Independent students take control of their work, and are proactive and creative in presenting options and assessing their strengths and weaknesses. ... this does not mean that they never ask for help - independent students will often ask questions based on their own initiative and information" (NCVQ, 1994a, p. 11).

At Grove the five scientists collaborated to develop assignments which required students, not only to increase their knowledge and understanding of science, but to apply scientific ideas as they planned investigations, solved problems and developed practical skills. Authentic assessment tasks or complex, ill-structured problems which students would confront as scientists in the work place were created. The coordinator described the process:

"The next assignment will be based on a road traffic accident. That way we can get every single subject in. We try as much as possible to see how the subjects link in with each other and that we are using the different subjects. At the last planning meeting I said that we haven't integrated well for the last couple of assignments ... so it was time when we had everything integrated again. ... We've had one meeting where it was decided that the scenario would be a traffic accident ... we want to fit in the rest of Unit 5⁴ in as far as Physics is concerned. We want impact and the associated physics included. ... we haven't got universal agreement as to what goes in ... but everybody will have to give a little to make sure that they get their bit" (Interview, 1994).

Team members appeared excited when they realised how they could develop the scenario to include opportunities for students to address the performance criteria for particular unit elements. For example, the chemist embellished the scenario by

⁴ This refers to Unit 5 Energy Transfer which is described in detail above.

including the discovery of an unidentified substance in one of the cars. This inclusion gave students a chance to develop an analytical strategy which was an element (1.1: Decide analytical strategy) of Unit 1: Analyse and Identify Substances and Specimens.

Similarly the biologist saw the potential for students to use this scenario to demonstrate their understanding of one main organ system of the human body (the lungs). For example, Unit 7 which is titled Manage Living Systems is made up of three elements which include: Element 7.1: Establish the characteristics of a living system; Element 7.2: Monitor changes in the key functions of a living system and Element 7.3: Recommend management action for a living system. The range for each of these elements includes the human body. The biologist chose to integrate information concerning the lungs and pulmonary diseases.

It was considered important to leave the scenario reasonably open so questions could be posed which required students to postulate what happened to cause the accident. Here was an opportunity for the course coordinator to include mathematics associated with probability.

She concluded:

"Everybody ... threw a few ideas in and ... I think they were excited about it in the end. ... we were under so much pressure of just thinking ... in unit terms and how much body of knowledge we had to get into the students. I felt that we would have lost the original idea of having everything relatively integrated" (Interview, 1994).

This assignment incorporated activities relevant to four units (Unit 1: Analyse and Identify Substances and Specimens, Unit 5: Energy Transfer, Unit 7: Manage Living Systems and Unit 8 Handle Data in Science) and 15 elements within those units. It included a unit tracking sheet which listed the activities included in the assignment, unit elements to which those activities related and a number reference for each of the pertinent performance criteria (See Figure 6). This sheet was used by students for self-evaluation and monitoring purposes.

The assignment also outlined fully the assessment process and provided the student with the performance criteria they needed to meet to demonstrate mastery. For example, the assignment assessment sheet stated:

"Assessment will be against performance criteria specified in each unit.
Your work should include:

... A diagram of a lung with the functioning parts identified and their roles explained. 7.1.1⁵ , 7.1.2

The planning and results of an analysis of a sample of lung tissue 1.2.2, 1.2.5.

A completed survey into lung capacity as specified. 7.2.3, 7.2.7, 8.1 ..."

(Assignment 7, Grove College, 1994)

An intended outcome of providing students with this level of detail was to demonstrate how course content was incorporated into assignments and for students to be aware of the requirements. However, some students found the integrated nature of assignments difficult as they were unsure of how much detail was required to address each criterion. This issue is discussed in the analysis section.

Activity	Unit Element	Performance Criteria	Level	Evidence Reference	Signed
Clinical Report	7.1	3			
		1			
		2			
		4			
		5			
		6			
	7.2	1			
		2			
		3			

FIGURE 6. A section of the unit tracking sheet for Assignment 7 Accident on the Portsmouth Road.

The assessment also required students to demonstrate analytical skills in the laboratory. For example:

"The candidate is observed in the laboratory:
to prepare and execute a safe chemical and a safe biological analysis 1.2.1, 1.2.3, 1.2.4;
to demonstrate an ability to safely monitor lung capacity and record measurements 7.2.2, 7.2.5, 7.2.6."
(Assignment 7, Grove College, 1994)

⁵ These numbers refer to the unit element and the performance criteria located in the students' portfolios. For example, 7.1.1, refers to Unit 7: Manage Living Systems, element 7.1: Establish the characteristics of a living system, performance criterion 1: Functioning parts of a living system are identified.

The chemist and biologist were required to witness each student's performance in the laboratory and could only sign tracking sheets if students demonstrated competence. This assignment also stipulated the elements for each of the three core skills and the range and evidence indicators for each of these elements.

The focus on outcome related standards, in the GNVQ course, has required students to demonstrate performance more than ever before. Statements of competence (what the student should be able to do) are controlled by the assessment processes rather than how the student attains that competence or the time it takes for the student to achieve that standard:

"Provided that the student can demonstrate their competence they will get their award. The key question is: Has the person reached the standard? The assessment of the standard becomes crucial. It is the only way that you can ensure that there is quality in the achievement ... " (Interview of Assessor Trainer, 1994).

An account of assessment and grading at Grove will now be given to highlight its impact on pedagogy and curriculum.

Application of GNVQ Assessment and Grading at Grove

"The assessment in the GNVQ program has to be crisp and sharp and the lecturer has to be completely sure that the student is competent" (Interview of Assessor Trainer, 1994). This demanded a major adjustment on the part of lecturers and students. How did these lecturers assess the end process with the rigour that indicated students demonstrated an ability in a range of circumstances? The standards related to a range of work circumstances and students were required to demonstrate ability throughout that range. If this was not demonstrated then students could not be described as competent.

Some lecturers were used to marking by giving students a grade out of 10 (or more) and had to adjust to the GNVQ system. An assessor trainer explained:

"It's about 10 out of 10 or it isn't. It is as clear cut as that. Students themselves want to know how well they have done. They are used to being graded against other students. So they are wanting to know, how well did I do in that particular assignment? Teachers are finding that quite a challenge. Many teachers are still marking and saying: '... That's what students want. They want to know how well they've done.' But that is not assessment. That is

grading. That is *not* what it is about. You are actually assessing the students. That is what GNVQ is about" (Interview, 1994).

The lecturers at Grove had to facilitate learning and create situations where students were planning, collecting evidence and evaluating their work: the grading criteria which reward independent learning. A lot more student autonomy was observed in this system.

Students had to be clear about the skills required by the grading criteria and had to understand the unit specifications for vocational and core skills units. The guide to grading Advanced GNVQs (NCVQ, 1994a) emphasised that throughout the GNVQ program, students should receive feedback about how well they were performing in relation to each criterion.

Students also collected evidence for the criteria of these processes: planning, information seeking and handling and evaluation. For example, it was not sufficient for students to claim they had evaluated their work, they had to provide written evidence.

The students demonstrated that each performance criterion for the particular unit elements was met at the conclusion of assignment. The unit tracking sheets were used for this purpose. Once the student identified the evidence to the lecturer (by referring to the work completed) the lecturer countersigned the student's tracking sheet. This was how students took responsibility for monitoring their progress. During this process the students used self-evaluation skills to demonstrate their learning.

STUDENT SELF-EVALUATION: PROCESSES IN ACTION

In the Advanced Science GNVQ pilot program student self-evaluation processes formed an integral component of the course and this was formalised through the use of evaluation as a grading theme. What impact did this context have on the student self-evaluation processes? How did the lecturers at Grove incorporate the processes of student self-evaluation into their teaching? What facilitated the implementation of such processes?

In the search for answers to these questions it was necessary to read and analyse documentation obtained from the various levels of: classroom, college, awarding bodies, supporting bodies such as Nuffield Science in Practice Project, and National

Council for Vocational Qualifications. It was also important to observe student self-evaluation processes in action and to discuss these processes with students and their lecturers.

Formal and informal student self-evaluation processes in the Advanced GNVQ teaching and learning context will now be described.

The Portfolio

Opportunities for informal and formal student self-evaluation were observed during link periods which were meetings of students with their mentors. During these sessions students organised, collated and managed their portfolios of evidence. An examination of some students' portfolios revealed they had identified their career goals, work experience, qualifications and other achievements. The mandatory science, mandatory core skills, and the operational and additional units for which evidence was collected were clearly outlined.

Students at Grove developed an action plan, using a proforma, for each assignment. They supplied the following information: titles of assignments, dates assignments were received and submitted, action plans, order and date by which plans were carried out, achievements, comments and further action. The students' mentors signed and commented on the action plans while students were responsible for monitoring the review.

The portfolios which were examined, contained unit tracking sheets which were used by students to manage information and demonstrate performance. For each assessment activity students were expected to indicate the portfolio reference and the performance criteria supported. The element achieved and the range covered were acknowledged by the assessor. This was how the portfolio demonstrated the performance criteria that had been met and the range covered for the elements of all units for which accreditation was sought.

The students' self-evaluations of their plans and rationales for action and their conclusions were also included in the portfolios. A sample of a student's self-evaluation follows:

“The logic and workings out of the chemistry assignment were quite demanding. However, one (sic) I understand what had to be done and how exactly to go about doing it, I carried out all aspects of the assignments

successfully which included surveying, researching, writing up experiments, setting up a chemical database and carrying out practicals.

Further action which I had intended to do was that of continuing my research on chemicals and their hazards and also molarity workings out. I feel that I need to continue my practice of molarity calculations so that I can get use to it and get better at it. Most of all I need to continue my own reading up on chemistry (subject as a whole). I find it easier to understand things if I know a bit about it beforehand and the only way to get better at the subject is to read about it.

I have carried out a few biology practicals and have found them quite enjoyable. Biology is, I find a much more straight forward and easily understandable subject. I prefer biology to chemistry or physics, however I do feel that all 3 are just as important as each other and need equal amounts of my attention and working time. Further action on this subject is to sort out all the work given and read up on the subject as I have been doing with chemistry. I enjoy reading up on biology matters therefore I spend a lot of time doing so" (Student's Portfolio, 1994).

Link Periods

Each of the five lecturers is a mentor for three students. It is during link periods that students review assignments with their mentors, monitor their own progress and demonstrate evidence of learning. Their mentors use this time to provide feedback, help students decide on follow-up activities and interview them on their progress. This one-to-one situation is an important time when mentors reinforce the need for students to take responsibility for their own learning.

The students worked on Assignment 7 Accident on the Portsmouth Road which required them to take charge of an investigation into an accident on this road. For example:

"PC Dray has given you his initial report. To complete the final report you will need to estimate the direction of travel and the speeds of the cars involved prior to the accident and gather evidence from expert witnesses.

You will have to speculate on the possible causes of the accident and call for as much evidence as you need to support your theories.

For the purposes of this assignment you will also have to adopt the roles of the experts.

Your report will have to be understood by a Coroner. It will also have to be understood by a jury if there are Criminal or Civil proceedings. We suggest

accounts of methods used, all raw data and the reports from expert witnesses are placed in appendices at the back."

There were seven activities that the students were required to carry out. These included: speculation and calculation, chemical analysis, clinical report, technical report, pathology report, statistical analysis and accident report.

It was the speculation and calculation activity which was the focus for most students at the time when the following observation of the link period took place. The speculation and calculation necessitated: a consideration of the initial report by PC Dray, the recording of students' ideas on possible causes of the accident, and identification of evidence that was needed to support their theories. They were reminded that there were a number of likely causes and their task was to find an answer.

Throughout the link periods students had the opportunity to engage in one-to-one dialogue with their mentors or peers. There were four teachers and 10 students engaged in one-to-one discussions. While observing, it was difficult to capture all interchanges which took place simultaneously. Rather than attempt to do this, the focus of this snapshot is on typical, observed exchanges which portray particular characteristics and which capture the nature of these sessions.

Snapshot of a Link Period

In May 1994 on a Tuesday afternoon at 3.30 pm, the students enrolled in the Advanced GNVQ Science Program at Grove were engaged in a review session during their first link period for that week. The second link period occurred on Thursdays at 1.30 pm.

The sessions take place in a general purpose laboratory, used as a base room for the Advanced GNVQ Science program. The blackboard, a television and an overhead projection screen are positioned at the front. Windows along one side of the room look out onto surrounding buildings. On this window side there is a door at the front of the room which leads into the adjoining laboratory. A work bench stretches across the front separating this section from the rest of the room where four more long work benches span the laboratory, one behind the other. There is a lockable cupboard at the front of the first bench where students store their portfolios. A sink and storage cupboards are at the side of the room, below the windows. On the other side of the room are more storage cupboards and display boards. At the back of the room is a door to the store room for electronic and scientific equipment, a display board, and

another door at the hall side of the room. This is a multi-storey campus and the department of science and mathematics, where this laboratory is located, is on the fourth floor.

At the outset of this session there are eight male and two female students seated, in pairs, or on their own, at the four work benches in the laboratory. There are two lecturers also present in the laboratory, one of whom is handing back assignments. The assignment cover sheet outlines the elements completed and students check to see that the lecturer has signed the appropriate section to confirm that the demonstration of performance has been witnessed.

Another teacher enters the room and says:

"Certain students need to see me because they forgot their speculations on Friday. I don't need to remind you who you are. It's up to you to remember and take responsibility to see me."

The chemist arrives. There are now four teachers present in the room who take up their roles as mentors. They sit together with their mentees to discuss individual student issues, problems and concerns. Some students are seated on their own at the benches, reading through assignments they have just received, checking to see they have fulfilled the requirements, filing work, sorting and organising their portfolios.

One student asks the chemist (her mentor the biologist is not present) if she needs to tick off the elements. The student provides the evidence and turns to the unit tracking sheet.

"I've done it!" exclaims the teacher. She goes on to explain that the elements have been recorded on two different sheets and the individual teachers responsible for the particular subjects have acknowledged this student's evidence separately on the two sheets. "I've done this bit, he's done that bit. They've been done on different sheets." The student returns to her portfolio and enters the assignment.

The four lecturers are now with one of their mentees and are engaged in one-to-one consultation. These interactions range from explanation by a mentor to his mentee regarding the need for this student to revise for Friday's session, to what appeared to be exasperation on the part of another mentor and her mentee.

"Two weeks ago I asked you to write down what you thought happened. (She is referring to the work related to Assignment 7.) Where is it? Work from a fortnight ago! I can't see it!"

Throughout the link period these consultations between mentors and their mentees continue. They vary in content and nature. For example, one student has a problem with her action planning and seeks specific help from her mentor who does not state explicitly what it is she needs to do, rather he probes patiently with questions until she states: "This is the information I have to get!"

Another mentor, who is the chemist, is seated at the front bench with her mentee and they focus specifically on the chemistry part of the assignment. At the same time another student approaches his mentor and they discuss the numbering of the work. (Students have been advised to number their work for portfolio reference purposes.) This student is told to include this information and his mentor checks his portfolio of work while he looks on. She checks to see that he has completed the work and asks him for the assignment:

"Here!"

"Check the back page and the checklist there."

She signs the sheet, once the evidence has been produced.

"At last!" the student exclaims.

"Well done!" the teacher responds.

"Hooray!" The student appears pleased with having completed this aspect of the work.

At 3.35 pm those students who are not with their mentors are observed sorting or filing their work into their portfolios. This activity continues while the mentors discuss on a one-to-one basis with their mentees the assignments and student responses. At 4.05 pm eight students are working on their own and two students are talking to their mentors. The students continue to plan, organise and complete their work during this session. It is at this stage of the link period that the teachers are able to take a few minutes to plan when they will be invigilating and discuss the needed preparation for the tests.

For the remainder of this session the students continue to discuss their work with their mentors, with their peers, or work on the assignment independently. A dominant characteristic of the interchanges observed between mentors and their mentees was the obligation on the part of the student to provide the evidence to demonstrate their learning. One such interaction follows:

"Can you tick this off Miss?"

"Where are the page numbers?"

"Can't put them in."

"I can't tick it off until I've seen it's done."

Another interaction was observed where the mentor adopted the role of facilitator to promote individual learning. He asked the student:

"Have you done your review sheet? I can't sign the review sheet until you've done it! What are the things done this week for the assignment? On Friday morning you need to see me if you alter the speculations. If nothing else needs to be done, do the review sheet. Which is more important?"

"Both are."

Without telling the student what needs to be done the teacher asserts: "You need to do this in order to do the review."

The student responds: "Indexing."

The teacher repeats the question: "In order to do the review? What?"

"Index."

"Then?" the teacher asks.

"Review sheet," says the student.

"Then come to me."

"OK Sir. Thank you." This female student returns to her work.

In speaking to this teacher at the end of the link period it was made clear that one of the tensions as demonstrated in the latter interchange was not to tell students what to do but to get them to prioritise. He went on to explain that a range of student ability, attitude and levels of attainment was represented in the group.

Portrayal of Student Self-Evaluation

One of the purposes of this research is to describe, analyse and interpret student self-evaluation. This required a close examination of how students self-evaluate their teaching and learning experiences. As outlined in Chapter 3 the processes and procedures adopted involved observation of student self-evaluation processes in action, discussion of the tangible outcome of such processes (for example, the portfolio) with students and teachers, and interviews of students, their teachers and mentors, to gain an understanding from their various perspectives. How students self-evaluate their learning will now be portrayed using their voices as synthesised from the interview data.

For each assignment students complete a self-evaluation. "[Y]ou have to write these evaluations for each one [assignment] and say how well you think that you've done. ... You have to do it on your own ... It's very much like what you've done, what you've put into it, and what you think you will get." Another student clarified the

process further: "After each assignment you have to evaluate how well you've done your planning, information seeking and handling, and evaluation [of] pass, merit or distinction."

A student's self-evaluation as presented in her portfolio was discussed with her. She described the process involved: "... the evaluation has to be done before you ... give your work in [for teacher assessment]. I do my work and then ... I think back to the problems I had, what I thought I could have done better and ... I put it into the evaluation. ... [I do it for myself] as well as the teacher, to know how I went about actually doing my work and what I thought of my work." During the self-evaluation process students discussed, clarified and negotiated with their teachers and mentors. "Our mentors go through with us, at the end of each assignment that we've done, and they tell us how to do something and how to improve it. ... [I]t's helped a lot ... the mentors help."

Students used an assignment review sheet as part of the self-evaluation process. This sheet included headings for the following grading criteria: Evidence of Planning; Evidence of Information Seeking and Handling; Evidence of Evaluation⁶. Under each of these was a space for the student's "self-assessment", the portfolio reference, the proposed grade and the tutor's negotiated comment. This sheet was used by the students to document the process outcomes and to judge their work. The students who were interviewed explained how this was accomplished. "[W]e have separate mentors ... if you have a physics assignment to do, the physics teacher marks it. You have a separate sheet [unit tracking sheet] where you have to write down the things that you've done and ... what mark you think you should get. The teacher looks at the work you've done so that she's got some evidence ... and then if she agrees with the mark you've given yourself .. she signs it. If not, she gives you a mark that she thinks you should get - evaluated by the work that you've done." Another student elaborated: "The assignment review and the unit tracking sheet [are how] they [mentors] actually tell you that they don't think that you've done as well as you should have done to get a merit or to get a distinction." She indicated how this was one built-in opportunity for students to get feedback.

The use of the performance criteria was prevalent when students graded their work. They indicated they valued the times when teachers elucidated the meaning of the performance criteria. "You have to read the descriptive levels for pass, merit and distinction. The performance criteria ... are quite hard to actually understand but with

⁶ The grading criteria for quality of outcomes had not been designed at this stage, February 1994.

the help of a teacher she explains what they mean. [W]ith the performance criteria we actually understood more of what we should be looking for, when we plan and how much we should plan." Another student concurred: "I found them [performance criteria] helpful because the teacher actually went through them. I find it helpful when the teacher goes through it."

Another student self-evaluated her work and graded it at merit level, her mentor had graded the work as pass level. She explained: "That was the first assignment and we weren't too sure of what we needed to get merit, pass and distinction. I thought it was worth a merit but you need a lot more to get the merit than was first realised. ... I asked questions and the teacher explains ... what you should be doing and sort of like guides you in what you should try and achieve. It is ... really hard to get it." (This student smiles as she says this.)

She described the self-evaluation process: "You ... evaluate how well you think that you've done it. Like your action plan - what alterations you made to it, how you evaluate those changes you made." She explained that content, as well as the latter process, was evaluated: "This [the evaluation] is like the conclusions, for example, like in an experiment that you've done. ... you've evaluated what you've done in that whole experiment. You have like a series of experiments which you may have done during the assignment."

A female student's experience of the use of performance criteria: "You have a criteria list which tells you what you should do to get a pass, what range you should have covered. Like for a pass, it's just like you ... planned a few tasks. Like for merit you have to have planned quite a range of tasks ... quite a few different ones ... and for a distinction (she smiles) you have to do pretty well!" Smiling she continues: "I thought I had just passed ... because [I] didn't plan things on [my] own. For a distinction you have to plan things on your own but for the first assignment most of it was planned by the teachers because [of] being the first assignment." Some students also referred to the performance criteria when they received work from their teachers which was evaluated as not addressing all criteria fully. For example, "[A]fter you have finished your assignment your mentor will check off what you've done or what you haven't done and then you refer to your portfolio to find out what you haven't done and catch up on it. ... In my last assignment I referred to the performance criteria cause there are still things that [I] need to catch up on."

In grading their own work students realised they had to be honest with themselves. While making judgements they were reliant on finding the evidence in their work to

substantiate their claims. This male student elucidated: "You've got to think did I do well on that. If you think you have then you can put down for a merit, if you don't think you have then you put a pass. It's the only way because if you did put a distinction and it was worth a pass your mentor is going to turn around and say: 'Show me where you've got all this stuff to get a distinction with.' If you've got the work to say that you can get a distinction then you can actually show it off to your mentor." This student went on to explain what assisted him in the evaluation process. "[Y]ou look at the performance criteria and if you [ticked] off most of them then you can say I think I deserve a merit. If you haven't then you know ... it's only worth a pass."

This student commented that the negotiation of the grade with the lecturer is useful: "[A]t least this way we learn what the teachers' standards are for the work that we're doing. Because I thought I should have got a merit for a piece of work, but she gave me a pass. So I thought that it was good but obviously I have to be better to get a merit."

Students explained how the action planning related to the self-evaluation process. "[The action plan is] where I set deadlines for myself. ... if you stick by that you know that you're heading on the right track to get it [the assignment] completed." The use of the assignment review sheet was further explained in relation to action planning and self-evaluation: "... in the assignment that we've done, we have to show evidence of certain things, like your action plan. You produce that as a piece of evidence of your planning. Then you have evidence for information seeking and handling which would be like looking at leaflets and books ... and you have to turn up bibliographies and things." This student also referred to the link between action planning and the self-evaluation process: "You had to plan out what you were going to do, whether you did it and sort of say how well you think you went according to your plan - whether it worked or not."

Five months later students talked about action planning again: "It's a plan of the assignment. Plan out what you are going to do - by what time, how you're going to split the assignment up, what times you think you'll do it, when you actually achieve by date - you kind of like assess it as you go along and then mark off how well you've been doing it."

They said of the use of performance criteria and self-evaluation: "We understand it better now." and "They [the performance criteria] are getting ticked off." However, the need for teacher explanation and discussion of the performance criteria was again

a priority for the students. For example: "I prefer it when the teachers explain fully so that you know exactly what you are doing. Where as if they just say, 'Look at the performance criteria and try and work it out from that.' It gets very confusing. You end up getting the wrong information." This student illustrated what he meant by explaining how he had researched the assignment topic but had obtained inappropriate information. It was in discussion with his teacher that he discovered the nature of the information required.

SUBSTANTIVE THEMES

The way teachers structured assignments to ensure each unit of the Advanced Science GNVQ course was addressed, the assessment and grading procedures, and the role of the portfolio in student self-evaluation, have been described fully to help illustrate how assessment, curriculum and pedagogy are interconnected. This level of detail was needed to contextualise student self-evaluation in this case study.

The following substantive themes have emerged from an analysis of all data collected and synthesised. The informal and formal types of student self-evaluation have been discussed but are briefly mentioned here. The three dimensions of student self-evaluation, as analysed in this case, are then described. These are the use of criteria , the interactive dialogue (with feedback highlighted as an essential property) and the ascription of a grade

The other themes include the supportive conditions for student self-evaluation and the constraints. The latter arose from: the pilot nature of the program; the complexity of grading criteria; student reluctance; bureaucratic requirements; the lack of time and the tests in a criterion referenced assessment system. The learning outcomes follow.

Informal and Formal Student Self-Evaluation Processes

Informal and formal student self-evaluation processes were identified. As described earlier the informal processes tended to occur throughout the link periods when students were engaged in monitoring, reviewing and checking assignments. The more formal processes included the portfolios (which contained the unit tracking sheets) and were used by students to manage information and demonstrate performance. They contained students' self-evaluations of their action plans and how they identified ways that were/or could have been considered in reaching their conclusions.

Key Dimensions of Student Self-Evaluation

The key dimensions of student self-evaluation as identified in this case study include first the use of criteria. The performance criteria were given in the unit specifications and were used by students to self-evaluate outcomes and alternative plans of action. To obtain a merit or distinction award, students were responsible for devising their own criteria when self-evaluating outcomes and alternatives. The other dimensions were: the interactive dialogue and the ascription of a grade.

The Use of Criteria

The lecturers integrated the use of criteria for student self-evaluation into their teaching. The stipulated performance criteria were used for purposes of curriculum planning, assignment design and grading.

Gipps (1994) in discussing issues related to teacher assessment has identified the real problem of "making teachers' criteria or standards explicit to students" (p. 128). In the GNVQ context the performance criteria for what the student has to achieve are given. This has meant that teachers no longer make judgements about students' work on the basis of ranking. Rather they, and the students, evaluate the work against given criteria. This has been a difficult shift for teachers who are used to giving students' work a mark out of ten. Students have also found the change difficult and want to know how they have been graded against other students.

Gipps (1994) in discussing the age at which students can take on "evaluative and self-monitoring strategies" (p. 128) refers to Broadfoot et al. (1988) who discovered that:

"secondary pupils found self-assessment difficult partly because they were unused to it and partly because the assessment criteria caused problems. Often clear assessment criteria were not available and even when they were, students tended to make norm-referenced judgements of their achievement i.e. in relation to their perception of the range of achievement in their teaching groups rather than directly in relation to the categories" (p. 128).

In the GNVQ context the performance criteria presented problems for teachers and students. The performance criteria are given for each unit. Students must demonstrate that they have met all performance criteria across the given range. In addition there are grading criteria which now relate to four themes of: planning; information seeking and handling; evaluation and quality of outcomes.

A GNVQ evaluator described the performance criteria in the following way:

"There are specified criteria but fairly general ones and there is a feeling that they ought to be more specific to the subject area so that they can link in the context to the evaluation process and [be] easier for subject experts to understand."

The properties of clarity and specificity were identified in this theme of criteria use. There was a need for teacher explanation of the performance criteria and the timing of such explanation emerged as an issue for students. They stated that the criteria were not easy to understand and therefore in some assignments they were not addressed. They needed teacher explanation and clarification of performance and grading criteria at the outset of assignments, not after assignments had been graded.

When students were probed, the following factors emerged as contributing to their struggle to make sense of the criteria. First the performance criteria were described as "too open and general." For example, this student described how the feedback from his teacher (which indicated that he had started the assignment well but did not include enough detail) led him to believe that the performance criteria did not give enough specific information to enable him to include the quality and amount of information expected.

Another related factor which contributed to student difficulty with the performance criteria was the integrated nature of the assignments. For example this student elaborated:

"... sometimes it is hard to relate [the performance criteria] to the assignment. Like for the accident assignment, the physics part. None of us really knew what we had to do for that in order to get the performance criteria, so most of us missed out on it. They gave you a rough idea at the outset but it wasn't really that good. It wasn't clear. It would have been better had they gone through it in a bit more detail."

Another factor was the clarity of explanation from the teacher. For example, another student commented:

"It depends on the teachers. In one assignment you can really do well in one part because that teacher is really good at explaining. But the one after that might not be as good because [he or she] is not as good at explaining to you what you should be doing."

The students preferred it when teachers explained the performance criteria fully so that they knew exactly what was required of them in their assignments. To tell the students to refer to the performance criteria and to try and work out what was required, without any teacher explanation, was described by students as confusing and misleading. The students' own experience of this approach had led them to search for the wrong or an inappropriate amount of information. The students believed some of the 'hit and miss' learning which had occurred could have been avoided had they been given a clear explanation of the performance criteria at the outset rather than waiting for feedback from their teachers when the assignment was completed.

This student described how the teachers also needed to explain the grading criteria at the outset of the assignment. For example:

"I think that we do get a clear idea from our subject teachers. Like they will give you an assignment and say if you *had done this* (the student's emphasis) you probably would have got a merit for it but definitely not a distinction."

This student did not consider this feedback to be helpful in clarifying what was required because:

"... once the assignment is done you get [the performance criteria] ticked off and you get your mark then she tells you afterwards. There's no point in telling us then because it is only after that she tells us that if you *had done this* or if you had done that. There's no point after because you've got your mark. I think it would be better if she told us before."

Interactive Dialogue

An important dimension of the student self-evaluation process appears to be the interactive dialogue between teacher/mentor and student. This interaction is often verbal and appears to: invite student questioning; provide feedback for student and teacher; and promote independent learning. It was during the link sessions where this interactive dialogue, on a one-to-one basis, was examined and analysed.

Gipps (1994) in describing the pupils' role in assessment for learning refers to Sadler's work (1989):

"If pupils are to become competent assessors of their own work, as developments in metacognition tell us they should, then they need sustained

experience in ways of questioning and improving the quality of their work and supported experience in assessing their work, in addition to understanding what counts as the standard expected and the criteria on which they will be assessed" (p. 26).

The interaction which took place between students and their mentors during the link periods was one of the ways that these lecturers were providing the students with the opportunity to do what Gipps and Sadler suggest. That is, during the link period students were provided with the time and support to reflect on, and to question, the quality of their work. When they evaluated their work they were being provided with support from their mentors and this assisted them in developing their understanding of the performance criteria and the standard of work that was required for a grade of pass, merit or distinction.

The interactive dialogue between mentor and mentee seemed to be an important time for clarification and understanding. The students were able to identify what they had achieved, their strengths and the positives, through discussion with the teacher. This was important information for teachers in their assessment of student performance and standards attained. This was then used to modify their instructions to students and their teaching. The formative function is highlighted. That is, the evaluative information is fed back into the teaching and learning process. As Gipps (1994) points out:

"... some believe that assessment is only truly formative if it involves the pupil, others that it can be a process which involves only the teacher who feeds back into curriculum planning" (p. 124).

The students valued the one-to-one interactive dialogue with their mentors. This was particularly the case when during the interchange the student received feedback that had a motivational effect or an improvement function. For example, "... it's not until discussion with you as a mentor that they start realising that, 'Yeah, OK I've done that!'"

The nature of the verbal interaction between teacher and student during this review is important. The aim of getting students to take increased responsibility for their learning has led some teachers to ask questions which put the onus on them to make the necessary judgements and decisions. For example, during the link period these types of questions were asked of students:

"What do you need to do?"

"Which is more important?"

"Which needs to be done first?"

"Where's the evidence?"

In describing how students gained an understanding of what was required of them the course coordinator stressed the importance of students quizzing their mentors and teachers. This questioning by students is an important part of the interactive process. The amount of information students received at the outset was substantial and the change from their previous school experience was dramatic. The grading criteria were a struggle for students to interpret and comprehend. (This issue is discussed further in the section on constraints). At the outset the teacher's role was to gradually get students to independence via a lot of teacher interpretation and help with the grading criteria. Understanding of some of the criteria dawns on students at different times but this is often achieved with support from their teachers.

Link sessions are intended to fulfil the functions of: support, clarification, feedback and assistance towards the accomplishment of the aim of students taking increased responsibility for their learning. During these periods students were observed in one-to-one verbal interactions with their mentors receiving feedback, advice and support. It was also possible for students to consult their subject lecturers for assistance, guidance and assignment clarification. Interaction during the link periods also occurred between the students themselves. They consulted with their peers for further clarification and understanding. Students when interviewed commented on how useful it was to get help from one another.

Feedback is an important property of the interactive process. The separation of feedback to teacher and to pupil, as discussed above, is elaborated in Sadler's classic paper on formative assessment and is quoted in Gipps (1994).

"Teachers use feedback to make programmatic decisions with respect to readiness, diagnosis and remediation. Students use it to monitor the strengths and weaknesses of their performances, so that aspects associated with success or high quality can be recognised and reinforced, and unsatisfactory aspects modified or improved" (p. 125).

As discussed in Chapter Two a key element of student self-evaluation is feedback. Gipps (1994) in her discussion of formative assessment again refers to Sadler's (1989) work and indicates how it originates from:

"the 'common but puzzling' observation that even when teachers give students valid and reliable judgements about their work improvement does not necessarily follow. In order for the student to improve she must have: a good notion of the desired standard or goal, be able to compare the actual performance with the desired performance and to engage in appropriate action to close the gap between the two. Feedback from the teacher, which helps the student with the second of these stages, needs to be of the kind and detail which tells the student what to do to improve ..." (p. 125).

A requirement of the GNVQ program is that: "Students ... have frequent opportunities to find out how their work meets the standard required for merit or distinction, as well as unit requirements. Such formative assessment plays a vital role in guiding future learning" (NCVQ, 1994c, p.2). The course coordinator explained that it was necessary to provide students with feedback which indicated why they had attained the particular grade and what they needed to do to improve on that grade. The discussions of the students' self-evaluations with their mentors provided students with feedback which helped them develop a notion of the standards required to achieve a merit or distinction. In some instances mentors also provided their mentees with feedback that would help close the gap between the student's actual performance and the desired performance for a higher grade.

Some of the students who were interviewed described how at the end of each assignment, when they had completed their self-evaluations, their mentors discussed and provided feedback on how they could improve. In some cases students had to ask the appropriate questions to receive this type of feedback and guidance. Not all teachers appear to be aware of the important role of feedback and not all students are able, nor prepared, to ask the questions which will elicit this information from their mentors. For example, when a student was asked if she knew why it was she got the pass grade for her assignment she responded:

"I don't really discuss it with my mentor. I would like to but I feel uncomfortable talking about my mark with (she pauses) because she might tell me that when I think that I should get an A she might say I just deserve a pass for that."

Another student when asked if he had received feedback on his work from his mentor responded with:

"If you ask them about something, if they know it they will tell you. They won't come up and tell you if you don't ask them sometimes."

The Ascription of a Grade

The process of student self-evaluation seemed to provide students with some insights about grading and stopped them demanding a distinction "by right, just because they [had] done the work." Students needed to understand that the portfolio was graded as a whole and consisted of two years' work. A third of that work has to be of merit or distinction standard with emphasis on the process. That is, how the work has been achieved, as well as what has been achieved.

The grading of student work in the Advanced GNVQ context differed from some teachers' previous experience of A level teaching which involved a didactic approach. A level students are teacher led, they sit for examinations and their teachers take responsibility for evaluating their achievements. In the GNVQ context there is an emphasis on student-centred learning and self-evaluation plays a fundamental part of the qualification with students managing their learning more so than in other courses.

A major difficulty confronting both students and teachers in a pilot program, such as the Advanced Science GNVQ, is the problem of defining explicitly the standards. This is because it is a new course without bench marks or past examination papers, to which teachers and students can refer, in acquiring an understanding of the standards required for the qualification. A GNVQ evaluator described this dilemma as "student-led standards." He elaborated:

"What we think is happening this year [1994] is that teachers are looking at the ... 15 or so people in front of them and ... saying, I know these youngsters and I know what they are capable of in academic qualifications ... I've seen them before for five years in the school and so I am now going to teach them at the level that I think is appropriate for them. [T]eachers are interpreting the level of the qualification in terms of the youngsters in front of them. ... [T]he students are actually leading the formation of the standards by their own experience. All this adds up to teachers are really struggling with the standards and probably not trusting the students much to plan and evaluate the work themselves."

This dilemma is intensified when one considers what Sadler (1989) has described as an "indispensable condition for improvement" in the formative process. That is, that the student has a notion of the standard required similar to that of the teacher and is

able to monitor continuously the quality of what is being produced during the act of production itself. The students have to be able to judge the quality of what they are producing and be able to regulate what they are doing during the doing of it. In this case study it was difficult for students to have such a clear notion of the standard required given that their teachers were developing their own notions of the standards required and were reliant on the students, themselves, in the formulation of these standards! When the course coordinator was asked how the students gained a clear idea of the standard required of them she confessed:

"It is extraordinarily difficult. ... I mean this idea that you can actually hand them the unit and hand them the grading criteria and think that they understand it, is not on."

Supportive Conditions for Student Self-Evaluation

The supportive conditions for the implementation and adoption of student self-evaluation in this case study include pedagogical change and integrated teaching and learning.

Pedagogical Change

The pedagogical change which occurred in the context of the GNVQ pilot science program can be defined in terms of the shift to 'teacher as coach' for independent learning. Teachers were dealing with pedagogical issues, as well as new curriculum and assessment procedures, all at the same time. 'Teacher as coach' is a difficult shift for teachers because as stated by a GNVQ evaluator: "it [was] hard for them because it mean[t] losing control."

To develop student self-evaluation in this learner-centred context has required the lecturers to reiterate and clarify expectations to students who are accustomed to the teacher being in control of the planning, pacing, organising and evaluating of the work. The didactic approach of presenting a body of knowledge is easier for students because they remain passive. Students, in becoming independent learners, need to take an active role in planning, organising and evaluating their work. A tension for these teachers in adopting this pedagogical shift was to encourage students to take responsibility for their learning and to provide students with opportunities to develop skills required. Teachers had to structure learning environments so students had the space and time to try different approaches and to learn from these experiences. A more learner-centred approach meant that initially teachers assisted students as they assumed control of their learning. They then had to stand back to allow students to take charge. A teacher from Grove described his experience as follows:

"I think that the ideal is to allow students to operate on a divergent basis but be able to monitor them. If they go off at a tangent, although it might be interesting it might not produce the goods for the competences that they may have to demonstrate. You can be there to redirect their efforts. In the beginning you certainly need a lot of contact with the students, more from the point of view of being able to say to them: 'The way you are approaching this needs to be a little more sophisticated. You need to be a little more honest with yourself; it's all about deciding to learn new skills of self-reliance and organisation.'"

The course coordinator emphasised that demonstration of learning was at the heart of the GNVQ program. To get students to participate was a challenge for teachers because students had to learn that: "it's their course, their learning and they have got to take some control." Students did work on tasks individually and were engaged actively in planning, organising, filing, sorting, completing and evaluating their work. It was during link periods when students were observed taking responsibility for the organisation of their portfolios. The students ordered and managed the paper work, they were expected to index work, provide evidence to demonstrate they had met the performance criteria and ensure that teachers witnessed their performance by signing off the criteria on their unit tracking sheets.

The mentor - mentee relationship was where these teachers were seen implementing the pedagogical shift of 'teacher as coach'. It was also in this role that the interconnected nature of pedagogy, evaluation and curriculum became apparent. The role of mentor was connected to the requirement that the teachers had to complete the assessor and verifier awards⁷. At Grove lecturers were involved in training for the assessor awards and therefore needed to mentor a few students to "understand [assessment] in the student-centred learning process". The mentor - mentee relationship was in this way of reciprocal value. The mentor had several roles, one of which was to help and support mentees ('teacher as coach') while another related to the assessment process. The mentors were expected to explain why their mentees got the particular grades that they did, and to give them feedback to help them improve. This combination of roles could be difficult, when for example, in an integrated assignment the biologist was responsible for the majority of the content and assessed the work, her mentees might expect a higher grade because she was also their mentor.

⁷ The requirement for teachers to be assessor trained derived from the outcome based nature of the GNVQ program, the explicit performance criteria to be met across a range and the need for standards. Each centre offering GNVQs must have one person fully qualified as a vocational assessor and an internal verifier by the end of the first year of the course.

Integrated Approach

The benefit for students of an integrated teaching approach was a greater appreciation of the connections across the sciences. An integrated teaching and learning approach highlighted issues associated with team work and identifying cross links, particularly in the context of a pilot program. Most team members had taught vocational courses and wanted to implement an integrated teaching and learning approach, to establish a central policy for setting assignments and incorporate some authentic assessment tasks. At various stages, the pilot nature of the program and the amount of content to be covered caused teachers to worry, and focus on content, to the detriment of the integrated approach. At such stages they came together to collaborate in the development of the curriculum and related assignments. A snapshot of one such time was given above.

The values that underpin the GNVQ course extend beyond developing an academic understanding to include an integration of resourcefulness, independence, problem solving, information handling, evaluation: a broader approach than that offered by the GCE A Level course. The GNVQ evaluator indicated that:

"Thirty per cent of the youngsters who sit for A Levels fail and are left with nothing after two years of work. Those students with an aptitude for solving problems, getting on with people, learning relationships or teams aren't recognised at all. They are just cast aside. Teachers will say that the GNVQ course meets a wider range of needs."

The teachers indicated that they valued a course such as the GNVQ because it opened up full time education to a greater number of people. Another favourable aspect was that students would get credit for the course work completed. At this stage lecturers were cautious about whether the current GNVQ model was 'the right recipe' and indicated it should remain open to debate.

Constraints on Student Self-Evaluation

Many of the constraints on student self-evaluation arose out of the pilot nature of the program. Problems of continuous change, uncertainty and unpredictability arose. Teachers had to cope with pedagogical, curriculum and evaluation changes. Teachers found it difficult to change their teaching styles while students were reluctant to take charge of their own learning. The grading criteria were difficult to understand and implement by both students and teachers.

Pilot Nature of the Program

Students were aware that this was a pilot program and that there was learning for teachers as well. After five months this student felt he had a better understanding of the self-evaluation process but acknowledged: "The teachers have tried to explain it but - because it's like a new course as well - it's a bit hard to explain how to do it. So it's a bit like trial and error sort of thing. You have a go. If you've done it wrong, you look at what you've done wrong and you like try and improve it the next time."

Teachers acknowledged that some of the tensions they experienced were directly attributable to "the fact that, as in any pilot scheme, to begin with one doesn't really know what one is delivering. Where one, in hindsight, gained some insight into how to develop a part of the curriculum this must now be adapted." This teacher explained that NCVQ had responded to many comments and adapted the units because some were too full while others had a mismatch between the elements and the ranges given. It was felt that these tensions would continue when the revised units were supplied to the staff team to plan for the following year.

Teachers had to learn on demand. The course coordinator explained:

"As it becomes important to them (the students) we have to find out about it. Our job is really seen as gradually getting them to become independent. At the beginning we have to help them interpret a lot of it and we have difficulties. They are beginning to realise now and I think so are the lecturers. It's all a learning process."

In changing teaching styles, teachers were confronted with many pressures. For example, the integrated nature of the assignments presented some tensions. Initially the tendency was to think in terms of the units and the amount of knowledge "to get into the students." The move to a more student-centred approach meant working collaboratively with a team of scientists to design integrated assignments, using an assessment and grading system that was developing. This change created more work. Conflict and stress were experienced by all: "The staff have got to really get on with the team and be willing to listen. They shout at one another now and again but are willing to try." Such pressures accompany the change process and are linked to the dynamics of group work.

When teaching in a context where independent learning is a formal learning outcome, a major dilemma for teachers is deciding exactly how much guidance and support to give their students. A teacher described this further:

"I think that the tension also comes on the staff side (when first having to deliver a curriculum to the GNVQ model), if you are unprepared for the type of approach. You need to be able to step back from the students a little, giving them the option to make mistakes as much as anything else."

The Complexity of Grading Criteria

The assessment and grading system, which incorporated performance and grading criteria, range and evidence indicators for each unit, presented teachers and students with new challenges. NCVQ produced a set of grading criteria which according to one of the lecturers was "far too condensed, and using far too sophisticated level of language, to enable students to appreciate the demands being made of them" (Written comment, 1995). Teachers had some difficulty in interpreting the grading criteria while students struggled to understand and wanted greater clarity and specificity.

Teachers and students wanted exemplars of work to gain a clearer notion of the standards required. Gallimore and Tharp (1992) have indicated the importance of establishing "... standards (as goals and subgoals) and for setting up specific procedures for regular comparison of feedback information to that standard." They suggest that "[s]imply providing performance information is not feedback; there will be no performance assistance unless the information provided is compared to some standard" (p. 180).

Students stated that the evaluative language and the descriptors for the levels of pass, merit and distinction for each of the grading themes were difficult to interpret. This student elucidated in her explanation of self-evaluation:

"... you have to really read them (grading criteria) carefully to find out really whether you did (get a pass or a merit) because of the special language that they use in these. Like the descriptive levels for pass, merit and distinction are quite hard to actually understand."

Students struggled during the evaluative process which involved reading the performance criteria, interpreting them, seeking and presenting the evidence to meet the criteria then rereading the criteria to ensure that all had been met. Some students indicated how they had not interpreted the criteria accurately and had consequently spent time researching particular topics which were not as relevant as they had

assumed them to be. This tension was also associated with the integrated design of the assignments:

"[S]ometimes I don't understand exactly what the different parts to do (in the assignments) because, for example, the energy assignment. We've got deforestation, coal and photosynthesis and we've got to like combine them all together and at times I don't know how far to go with the photosynthesis and how far to go with deforestation."

Student Reluctance

During the pilot year two students left the course on the basis of their performance and associated feedback from their teachers. The course coordinator indicated that these students might not have been picked up until they had failed their end of year exams on a conventional learning program. The tension for these students came with having to take control of their learning. The teacher stressed that it was hard for some students "... because they want *you* to take control."

Teachers described how the student-centred environment challenged students. Teachers used a directed learning approach from time to time but found shifting students along the continuum, so that they were assuming greater responsibility for their learning, was difficult for some who expected to be teacher led and preferred more directed learning. Another teacher commented: "Often students wish to be teacher led, rather than control their own destinies. If one operates to build self-reliance, one is more confident about setting the students up to organise themselves. In the end it makes the whole process of learning 'easier' for the students."

Bureaucratic Requirements

The paper work was burdensome for teachers and students. This was not due to the assignments but the need for students to make sure that anybody looking at their portfolios would be able to trace the exact location of the evidence related to particular performance criteria. This paper load derived from the awarding bodies' method of assuring the quality of the qualifications. Due to a lack of resources it was impossible for awarding bodies to have personnel on each site and they were therefore reliant on forms and returns.

The evaluator of the GNVQ specifications and a GNVQ principal research and development advisor reported the need for greater trust in the professional judgement of teachers because the bureaucratic requirement for students to provide 'an audit trail' to identify every performance criterion satisfied, was proving too oppressive. The

process had to be simplified to establish the right balance between providing evidence and the rest of the learning experience.

This example illustrates the danger of a degree of decomposition which could prove detrimental to the evaluative process. Sadler (1985) suggests "[w]hile on the surface it may appear that the more detail we have, the better, in practice we are in danger of becoming swamped with atomistic detail, at the same time losing sight of what the overall evaluation is all about" (p. 289). He goes on to indicate that "although criteria may be used to facilitate and substantiate evaluations, they are not absolutely necessary" (p. 291). Sadler also suggests that "... the parties who have an interest in the evaluation need to be aware that the set of criteria needs to be left somewhat open, so that new criteria may on occasion be negotiated into an evaluation or inappropriate ones negotiated out" (p. 294).

Lack of Time

Teachers felt stretched for time. They needed to work as a team and collaborate to develop assignments. This was a new course which meant they were learning, at the same time, as organising and delivering the Advanced GNVQ course. Students too, wanted more time. For example one student commented:

"We could use a bit more attention during link periods because the teachers use that time to have their meetings as well, which means if you've got anything to talk to them about or that you want help with, they may say not now because we are having a meeting. This can be awkward if you are trying to say, sort out your portfolio."

Tests in a Criterion Referenced Assessment System

The mandatory tests were constraining, particularly in the controversial context where the GNVQ pilot program was presented as a high-quality vocational alternative to the academic GCE A Level and GCSE qualifications. The Government requirement to impose external tests caused confusion and conflict for the GNVQ criterion referenced assessment system.

They were objective and multiple choice type tests because these could be optically marked and allowed awarding bodies to offer frequent assessment opportunities. External testing reduced the flexibility for sites to design assignments which made use of the local environment and which promoted authentic assessment as was intended.

At a Nuffield Science in Practice project meeting it was stated that the design of the mandatory tests and type of questions included were a mismatch with lecturers' experience of the range of course outcomes. There were questions included which lecturers considered unfair. Multiple choice tests demand specific information and the GNVQ course was designed for students to develop core skills and competencies: a major tension had emerged.

The tests were intended to show that if the student passed then he or she had completed studies in the range of given contexts. The tests were not meant to demonstrate whether students had met the performance criteria. This is the function of the portfolio. The tests were meant to be 'stepping stones' or 'small hurdles' to be negotiated on the way to the GNVQ qualification.

Given the students' past experience of viewing tests as difficult to surmount, this view has carried over into their expectations of the GNVQ tests. Teachers have to get the message across that it is the portfolio that counts. This is not easy when the majority of teachers, students and parents have experienced a system where tests have been terminal, summative and selective in purpose. Their experience has been that the examination is designed to differentiate between students and therefore a test which is not intended to discriminate is uncharacteristic. Consequently the tests are treated like examinations because the students have to pass them to get the qualification and are therefore seen as important. Teachers in their search for standards look at the test specifications in the hope that these might inform them of the depth of treatment and finally because of the majority of the population's experience of a norm-referenced system.

Evaluation was interpreted in a rather limited way when checklists were produced for students to complete by ticking boxes. This was never the intent rather it was expected that students would complete a self-evaluation to demonstrate that they were capable of reflecting on their own work and judging its worth. This proved difficult for students who were not taught about the nature of criteria nor taught how to identify them for themselves.

LEARNING OUTCOMES

Students enrolled in this course are expected to achieve independence in their learning, assume responsibility for decision making related to assignments, be proactive and creative in taking charge of their work. The grading theme of evaluation supports these intended outcomes as students are encouraged to reflect on

work completed and decisions made. They are expected to consider alternative courses of action and the implications of particular courses of action.

When interviewed some students felt they were taking greater responsibility for their learning, however, they acknowledged it was not easy. They made comparisons with the GCSE and believed that the Advanced GNVQ was "more complicated, more indepth." They felt to sit for an exam at the end of a course was easier than the requirements of Advanced GNVQs. For example:

"... when you're at school they (the teachers) just sort of like say whether you passed it (the course) ... you don't really, *you*, yourself look into what you've done. It's sort of like - you just hand it in. 'Well, there you go! You find out what I've done.' .. You don't really look. Whereas this (Advanced GNVQs) makes you think more about: planning what you're doing first, and actually how to look for the information, and what you have to look for. ... before you just did it! Finished the assignment and handed it in. It was just the assignment that counted. You didn't really look at what you needed, to get the grades. This style is better ..."

Students stated that self-evaluation fulfilled an improvement function when they reflected on their mistakes which caused them to replan and rethink their use of time. They felt self-evaluations highlighted their strengths and weaknesses and suggested action to be taken. For example:

"I think that we learn where we've gone wrong and how to improve ourselves to do better and the way to go about the next assignment. You learn from your mistakes."

Student self-evaluation contributed not only to student learning but also provoked metacognitive thinking. For example when students identified areas for improvement and action to be taken they were not just thinking about what they had learnt but how they were learning: " ... I can look back on it (the evaluation) so that I know that I should be doing it in a different way to improve my grades." Another student explained how self-evaluation helped him focus and improved the efficiency of his learning: "... when we've completed everything we have to file it into our portfolio and put it in order of assignments. [T]hen we've got easy access to it. If we go through the performance criteria and we've already done it in a past assignment then we can say we've already done that - get that signed off. ... you're not doing ... more work, than you need to really. ... [Y]ou do work that is sufficient for the assignment."

Student self-evaluation provided the opportunity for students to focus on their achievements and helped them integrate the criteria for successful performance: "... you learn to look at what you've done and ... what you've achieved." The course coordinator agreed with this student comment and stated that self-evaluation was motivating for the student and encouraged students to realise what was achieved as well as what was not. A student explained how the process of self-evaluation had promoted self-critique and motivation to improve: "I think you learn from evaluating your work because ... (when you self-evaluate) you know that you've done your best or sometimes you haven't and you know that you could do better. So ... it gives you a kick up the backside really - in terms of your own work - more in the next one."

Being honest and truthful with oneself emerged as an important factor in the self-evaluation process: "... you're more honest with yourself really. [I]t teaches you to be more honest ..." This student explained that he thought he became more honest "because if you put something else down you're really cheating on yourself so - you've got to be honest with yourself otherwise you're going to lose out in the end."

Teachers also noted that being honest and truthful with oneself was integral to the self-evaluation process. This teacher explained how in his group of mentees he was able to monitor the extent to which students had successfully adopted and implemented the practice of self-evaluation.

"If I use my mentees as examples ... [a]s the year's gone by Brian has certainly come to understand exactly what he has to produce, the way he's got to evaluate himself. He's now at the point where, for most of the work he's doing, I can actually give him if not a distinction then a merit grading. He is working independently, he's being honest with himself.

If we take the case of Jack. He's working much more slowly. Because he's completed less of the assignments his aptitude for self-evaluation isn't as developed.

Brian can be open and honest about how well things have gone: Jack is more sensitive to criticism and defensive about how well things are going: it's because he is not having as much success or, at least, not achieving success as quickly."

Teachers who were interviewed believed that self-evaluation processes promoted skills to be self-critical and self-reliant. "I would argue that the students are more self-reliant than if they hadn't carried out such self-evaluation. Often students wish to be teacher led, rather than control their own destinies."

Other learning associated with self-evaluation as identified by the students and their teachers included skills in time management, research, information seeking and handling. Student self-evaluation in this teaching and learning environment seems to be facilitating self-critique on the part of the student, integration of the criteria for successful performance, strategies to improve learning, and greater self-awareness. Some students did value the self-evaluation process whereas others could not see the point of it.

It is to a secondary school that this thesis will now turn to investigate whether these substantive themes associated with student self-evaluation occur in a very different setting: Forest Comprehensive Secondary School. It is a Church of England, Voluntary Aided co-educational school in inner London.

CHAPTER SIX

FOREST COMPREHENSIVE SECONDARY SCHOOL:

Partners in improving learning and teaching

"Teaching and learning is a partnership, we've got to work together. I think that kids need to know that you *value* their work and you *value* their *worth* as an individual.

They need to be able to see that they are on one particular rung of a ladder and that they have got to go higher and higher and that you are there ... to help them do that."

(English Teacher, Forest School)

INTRODUCTION

Forest Comprehensive Secondary School, a Church of England, Voluntary Aided co-educational school in inner London was chosen for the third case study. Student self-evaluation was being implemented in a variety of ways across the school by teachers involved in multiple innovative programs. Some of the programs included: the Schools Make A Difference (SMAD) project (See page 149) and the adoption (by some teachers) of flexible learning; and the action planning pilot program for year 10/11 students which included student self-evaluation. In addition, a review of the school's assessment policy recommended the streamlining of the student statements for the Record of Achievement (RoA).

AIMS

The purpose of this case study was to further investigate the questions of:

1. How do students self-evaluate their learning and teaching experiences?
2. How do their teachers integrate this type of evaluation into their teaching practice?
3. Is student self-evaluation valued by teachers and students?
4. Under what conditions are student self-evaluation processes promoted?

In this case study I incorporated elements from three case study approaches formal systematic, portrayal and interpretive (Simons, 1994). This was done to maintain consistency with the previous cases, to use data from the various sources to 'portray' the story of the case and to offer some interpretation at the conclusion.

This case is based on data from teachers who were using self-evaluation processes in differing contexts and for varying purposes. To capture these differences I firstly

edited transcripts of interviews and observations to portray what was discovered. I included a series of snapshots of classroom lessons and descriptions of context. In the interpretive section, some analysis of the findings is presented. I did not wish to impose my definition of student self-evaluation, or suggest ways that it might be implemented in classrooms, rather I wanted to learn what these teachers, students and parents understood by the term. I wanted to know how these teachers were implementing student self-evaluation and what impact, if any, it had on teaching and learning.

A description of the broad context is given to locate the school within the national educational context. The specific context follows and includes a discussion of the SMAD program and Forest's assessment and reporting system. The student self-evaluation development processes are then given, which for this school, included an INSET day on flexible learning. Student self-evaluation processes in action are presented as a series of snapshots of teachers' understandings of the processes and their implementation. Parent and student data is integrated where appropriate. The interpretive and analysis section deals with the substantive themes. These include a brief discussion of the formal and informal student self-evaluation processes, the key dimensions of the process, and the supportive and constraining conditions. The case concludes with the learning outcomes.

BROAD CONTEXT

Schools in the United Kingdom have been confronted with reforms which include: a new national curriculum; changes to school governance, management and funding; changes to the roles of Local Education Authorities; changes in student testing and school inspections. National testing has required the adoption by teachers of attainment targets and programs of study measured in terms of Standard Attainment Tasks. These changes derive from the Conservative Government's education policy.

The Dearing Report (1994) was undertaken to review the national curriculum and the framework for assessing pupils' progress. It recommended significant streamlining of the mandatory curriculum for 5-14 year olds, especially outside the core subjects of English, mathematics and science. More choice was recommended within the curriculum for 14-16 year olds and the approach of grading pupils' achievements was to be simplified and improved. "Straightforward and rigorous tests will continue in the basics of English, mathematics and science in 1994 and subsequently in order to maintain the improvements in standards already underway" (DFE, 1994, p. 1).

"[S]eparately and together these changes are bringing about profound shifts in the nature of teaching and the teacher's role, profound shifts in the relationships between schools and parents and profound shifts in the nature of schools as work organisations" (Ball, 1994, p. 11).

SPECIFIC CONTEXT

The aims of Forest High School are to:

- provide a challenging teaching and learning experience.
- enable all its students to achieve their personal best and be responsible members of society.
- be a community based on Christian teaching, in which priority will be given to prayer and worship, equality of opportunities, mutual respect and service to others" (School Prospectus, 1993 - 1994).

The school was founded almost 300 years ago (1699).

Schools Make A Difference (SMAD) Project

The SMAD project was set up in April 1993 by a London borough for secondary schools in that area. Each school received funds, approved by the Director of Education, for raising student attainment and morale. At Forest students and staff were canvassed about their needs. The priorities identified were: flexible learning; teaching and learning styles; revision classes; and extended day provision. These met the approval and guidelines provided by the Local Education Authority (LEA). The teaching and learning styles included group work, community involvement, whole class teaching, individual project work, use of audio visual (AV), information technology (IT), resources and target setting.

Flexible learning (as defined for the teachers at Forest) is "an umbrella term covering a wide range of approaches and strategies. The key elements are:

- using a wide variety of learning activities, environments and resources
- giving the student increasing responsibility for their learning in a framework of support." (Flexible Learning INSET Handout, 1994).

It is argued that flexible learning enables students to develop core skills and competencies, such as self-evaluation, at the same time as they are acquiring subject specific knowledge and understanding. This is achieved by teachers working with individual or small groups of students as part of the normal teaching/learning situation. The aspects of the learning cycle (planning, target-setting, feedback,

reflection and review) are carried out in a context which is focused on individual learning needs (Employment Department, 1992).

Priorities of flexible learning and teaching, were being implemented in differing ways and paces by teachers observed. They were helping students to set learning targets, negotiating tasks, assisting them to develop action plans, helping them review, giving feedback, promoting the exchange of ideas and views in class, helping students identify their own strengths and weaknesses and enabling them to self-evaluate.

The revision classes for year 11 students were self-help classes, while for the younger students, there were subject specific classes such as mathematics or information technology. The priority of extended day provision took the form of enrichment classes for calligraphy, photography, modern language and 'a culture club' proved popular. The intent of these classes was to extend student learning beyond their daily lessons. Staff were paid for taking after school classes.

The SMAD co-ordinator of the school saw the biggest problem as:

"[A]ctually changing the school culture. There hasn't been a school culture of working and taking after school classes. There have been pockets where individual members of staff have taken classes for students, particularly for years 10 and 11 as they are coming up for GCSE's, but there hasn't been an overall school approach. So it's quite *different*."

Schools involved were expected to manage their own self-evaluation by including their own performance indicators in their project plans.

Student Assessment And Reporting

In 1993-94 at Forest, whole school assessment for all students' effort and achievement was reported in the second half of the autumn and spring terms. Individual teachers and subject teams recorded students' progress. In years 9 and above, formal school examinations were scheduled and marks were sent home to parents. A RoA was also sent home for every student in the school.

Of the four elements of the RoA, the first is the student statement in which students describe their achievement (both in and out of school) and their particular interests. The second element is a school statement in which teachers give a positive picture of their students' achievements. The third consists of samples or photographs of work. The fourth element comprises certificates such as GCSE examination results, awards received at school, and for activities outside school, and assessments that summarise

achievements in different areas of the curriculum (Inner London Education Authority, 1989).

It is the first of these elements that Forest changed after a review of the school's assessment policy. The changes introduced in 1994 required students to write an overall statement for the year. Students self-evaluated their strengths, areas for improvement, achievements, activities and responsibilities (both in and out of school). They set specific targets for future attainment and signed the statement which formed a contract.

According to one teacher, Forest's implementation of student self-evaluation processes (through student self-assessment, student statements, profiles) needed to be 'integrated right across the curriculum' throughout the student's school experience, 'not something that [was] bolted on the end of year 11'. She believed that 'bolting it on at the end' devalued the process and impacted on students' attitudes and responses. She felt that the way the reports were written previously, for a large percentage of subjects, was 'a bolt on exercise'. At the end of the year students were confronted with the task of writing student statements using the same format. For example, "If you happened to be the tenth teacher to give them out a form for their self-evaluation for your subject then they were bored stiff! They would groan, and in the end, trot out something which was a usual statement." This view was supported by some teachers interviewed. They viewed self-evaluation as an exercise that should be practised throughout subjects on a more frequent basis rather than leaving it for the end: 'Well how have I done this year?'

The review of the school's assessment policy led to the decision to give parents and their children termly feedback about the child's progress. A parental consultation evening was held for each group. Parents met subject and form teachers to discuss the child's progress and future plans.

An action planning program was piloted in 1993-4 with year 10/11 students. All student achievement was given a numerical grade and areas for praise or concern were identified by letter code. Subject teachers completed a report for parents which incorporated: course aims; assessment; content; cross-curricular skills; areas for student development; homework; attitude in class; attendance; punctuality and other teacher comments.

The tutor completed another report which outlined the aims of the pastoral curriculum, indicated cross curricular skills, a statement regarding the student's

achievement in the Personal and Social Education (PSE) course and a comment on the student's general classroom behaviour. Tutors were also responsible for collating subject teacher reports so that an overview of a student's performance was possible. For example, if a student was consistently not doing homework across all subject areas, this was recorded. If the student's own evaluation pointed to this as an area of weakness, then the tutor was aware that the student had accurately recorded an area for improvement.

Two important features of Forest's assessment policy for this study were first, student self-evaluation processes; and second, student action planning incorporated in the student statement of the RoA with the involvement of year 10/11 students in the pilot program. These features of the assessment policy aimed to increase student achievement, responsibility for learning and for post-16 preparation, awareness of career aspirations (linked to work experience) and student target setting. The belief was that through evaluation of the student's areas of strength and weakness, and the involvement of students, parents and staff in the process, there were more opportunities to address areas where students were struggling.

Student self-evaluation was designed to focus student attention on areas for improvement and for students to reflect on their learning strategies, organisation and planning. The tutor role was crucial in this process. The student-tutor interview involved a discussion of the reports of subject teacher and student. The questions focused on the students' favourable subjects, those of concern, examinations, course work and the student's potential. Together student and tutor identified short-term, specific targets. A second interview by senior management (occurred for those considered borderline), targets were discussed, students evaluated their own performance, and analysed why they had or had not achieved specific targets. They considered how they could help themselves, how the school could help them; they set further targets, career aspirations, and plans for post-16 colleges. Concerns regarding the forthcoming exams or issues about leaving school were discussed.

STUDENT SELF-EVALUATION: DEVELOPMENT PROCESSES

The student self-evaluation development processes for Forest include the INSET day on flexible learning and a synthesis of the ways in which the processes were developed and implemented throughout the school.

Flexible Learning

On the 21 February 1994, the staff at Forest were involved in their first INSET day on flexible learning. It was delivered by a contracted consultant. He was interested in supported self-study and was an advocate of change to the education system to more closely meet students' and teachers' needs.

Staff sat in cabaret layout (See below) in the assembly hall. Their warm-up task involved self-evaluation of a strength, a personal quality, and an unsuccessful learning experience. Discussion which followed centred on how people learn. The modes of learning identified included: 'by doing'; 'by getting feedback'; and 'by digesting'. *The point was made that usually there is lack of time to be reflective.* The consultant stated: "There is a gap between our experience as learners and our behaviour as teachers."

He discussed resource-based learning and his own experience of the chaos and time-consuming nature of this practice. In his introduction he mentioned: the many curriculum initiatives of the past decade; the tendency for curriculum to be fragmented; the shift in perspective from the key role of the teacher and misconceptions about supported self-study.

Tutorial groups, and the importance of establishing an environment where students were encouraged to take responsibility for their learning were discussed. Handouts about flexible learning and study guides were given. Their aim was "... [to] help in managing pupil learning and enable teachers to meet some of the demands of Office For Standards in Teaching and Education (OFSTED) in relation to the Quality of Teaching and Quality of Learning" (Study Guides Handout, 1994). The study guides mapped out the program of work and clarified expectations; an aim of group tutorials. The link made to the OFSTED inspections was acknowledged but the objective of helping student learning was stressed

Further classroom management and design handouts were issued. Classroom layouts described were: rows (where control and resource access through the teacher dominate); cabaret style (where students face the teacher but mixed class and group work are applicable); dining room (for students experienced in group work and where some students have their backs to the teacher); and workstation (which has advantages of being good for class teaching because all students can see the teacher and a resource island in the centre which promotes access with minimum disruption to others, chip board partitioning between pairs of students in groups of four).

Furniture, study carrels, boxes for resources, resource island, files, book cases were listed as important in setting the environment for students to take responsibility and to have independent access to materials. The development of procedures for how students need to behave in accessing these resources was a priority. Teachers raised questions about the rigidity of furniture (in some classrooms) and lack of space. These were acknowledged as problematic. The consultant suggested teachers start in small ways, such as, allowing students to assess work together, and with the teacher, establishing tutorial groups for students to participate, asking questions to ensure students take responsibility and creating time to engage with individual students (by organising paired or group work).

Groups were asked to consider aspects which contribute to effective teaching practices. The following list was generated by the group I observed: clear tasks; available resources; active learning; established boundaries; student/teacher relationship; variety for both teacher and students; importance of subject matter and content knowledge; teacher and student enjoyment. Other groups added clarification of expectations and task requirements.

In the morning, plenary session the following considerations were agreed. First, the clarity of the task and introduction of key learning points, were fundamental. It was important, that teaching and learning was resource-based, not teacher-centred. Variety for teacher and student was important to sustain enthusiasm and enjoyment for all. The evaluative nature of work and student self-evaluative practice were mentioned.

There appeared to be some teacher cynicism. Teachers seemed frustrated when the presenter acknowledged the difficulties of old school buildings and the immobility of seating in the science laboratories, for example. The idea of chip board partitioning was also not seen as practicable in some teachers' classrooms.

The consultant's demonstration of a tutorial session for only twelve members of staff was critiqued. They suggested that the teacher/tutor expectations and task requirements were not made clear at the outset. Participating teachers wanted more information about what had to be completed, how they were to work as a team, and how much time was available to complete the task. The use of the 'gold fish bowl' and the practicality of using this technique in the classroom were also discussed.

In the following session, five out of the eight teachers of the group I joined, shared their experience of successful teaching practice. One of these teachers was the technology teacher whose year 8 class I observed (See below). She explained her approach to evaluation and analysis, which she changed, after reflecting on her past teaching practice. She described how students participated in their learning, by sharing their understanding of the criteria, which she had made explicit. An example she gave was the students' perceptions of 'educational' and how students clarified their understanding of this for evaluating whether a toy met the design specifications. This teacher, in identifying the criteria for evaluation and analysis, engaging students in clarifying their understanding of them, and comparing their participation with past students' performance at the same task, believed these changes had impacted positively on learning. In the past, students evaluated good, bad and improvement points.

The remainder of the day was spent in individual departments dealing with departmental issues and completing a questionnaire about these teaching and learning styles. I observed the technology team which consisted of craft design and technology (3), home economics (2), information technology (2), technician (1).

Student Self-Evaluation Processes at Forest

Teachers and students at Forest viewed student self-evaluation in diverse ways. In 1994 it occurred sporadically throughout the school. Teachers were encouraged to incorporate student self-evaluation into their teaching and some were curious to know how this was being done. A number of instances were identified through classroom observations and interviews of staff, students and parents. In the observed classes, both formal and informal student self-evaluation, was evident; some more organised than others. Plans did exist for implementation of student self-evaluation across the school at the end of each unit of work.

The first instance where student self-evaluation was identified, was the writing of the student statement. In defining what they understood by student self-evaluation students emphasised the identification of the good and bad points of their work and areas where they could improve. In evaluating their strengths, achievements, and areas for improvement, students were encouraged to set targets such as: "I want to become more organised", "try and get more work done on time" or "seek help when I need it".

Students explained how they were provided with self-evaluation forms which required them to evaluate whether they had improved, what subjects or topics they

enjoyed and how they could improve. Some self-evaluated only at the end of term.

This student elaborated:

"We self-evaluate every term. I say what I think of myself and I can then match it with what the teacher says. Then I can see if I really am under-achieving. ... There are similarities but I prefer not to write anything bad about myself. The teachers say where I have improved and I take that into consideration when I write my next evaluation, and how I act in the next term. I do write things about how I can improve. I don't put anything like these are my bad points because you're not allowed to write anything negative about yourself. The teachers have to do the same" (Interview of Year 11 Student, 1994).

This student's understanding of self-evaluation was typical for many of the students interviewed.

STUDENT SELF-EVALUATION: PROCESSES IN ACTION

A series of snapshots of the discrepant ways that teachers defined self-evaluation, and descriptions of lesson segments to demonstrate how they integrated it into their teaching, are now given.

Snapshot of a Technology Class

The technology teacher was interested in student self-evaluation and agreed to have me observe her year 8 technology class. A snapshot of one of the seven lessons observed during the 1994 spring term is presented first. After evaluating her past teaching she decided to "get her students to do more in the way of evaluation." She was a member of the SMAD working party and was also the Anti-Bullying Policy Coordinator.

The four national curriculum attainment targets for technology are:

1. identifying needs and opportunities;
2. generating a design;
3. planning and making and;
4. evaluation. (Teacher's lesson notes, 1994).

This teacher thought that it would be useful for students to understand how teachers assess their work and for them to self-evaluate their achievements. Previously self-evaluation had been focused on progress. In 1994 she expanded it to include their work. That is, the extent to which students' models fulfilled the design brief and

incorporated suggested improvements. The design brief or project specifications included the following criteria: function, aesthetics, safety, economics, market, ergonomics, size, materials and processes, maintenance and durability and finish. The students' progress, and the skills acquired, were also self-evaluated. What follows is a portrayal of the way in which this teacher began to integrate student self-evaluation, which involved the use of some specified criteria, into her teaching and learning program.

The year 8 class consists of 19 students (10 girls and 9 boys). The classroom is located on the ground floor of one of Forest's two buildings, which overlooks the extensive playing fields. Desks are in a 'u' shaped layout with the teacher's table at the front of the room. A display table and resource island is situated in the centre of the room. The pin-up boards on each side wall display assignment work and notices such as:

'Forest School believes that all individuals should be valued and respected. It is resolute in its opposition to all forms of discrimination.'

At 9.10 students are lined up outside the locked classroom. The teacher arrives and asks them to remove their coats and scarves. As they move inside she says: "Today I'd like you to sit so that there is a boy, a girl, then a boy and so on around the room."

Several students give the teacher a note to explain why homework has not been completed. She comments: "Homework is important and if you are uncertain about what has to be done then you should seek help before the homework is due. Not on the day it is due!"

After briefly introducing me to the class, the teacher gets underway with the lesson. It is 9.15 am and she asks:

"When you were asked to analyse your work last year what did you do?"

A student offers: "What the good points and what the bad points are."

"Yes anything else?"

Another student says: "How it could be improved."

The teacher reiterates: "Yes, you looked at the good points, the bad points and any improvements. The lesson today will be a different type of analysis." Students gather around the resource island where she begins to display a collection of toys. She mentions the importance of colour. The criteria for analysis are identified on a sheet titled 'Product Analysis of Toys' (See Figure 7). This is handed to students.

"To analyse these toys you will need to touch and measure them. Don't be concerned with the purpose of the toy at this stage, rather focus on the criteria. What do you understand by the term educational?"

The students appeared engaged and responded one after the other:

"How to use it and being able to recognise things."

"Colours on it. Teach the colours on it."

"Shapes and how they can be taught."

"From ABC toys children can learn alphabet and/or numbers."

Product Analysis of Toys

Type of Toy	Target Age Range	Size in MM	Material(s) of Manu- facture	Removable Parts		Colourful		Educational	
				Y	N	Y	N	Y	N

Name _____ Form _____ Date _____

FIGURE 7. *The toy analysis sheet.*

The teacher demonstrates the educational quality of one of the toys by referring to its possible use and features. The teacher, with the class, proceed to analyse a toy selected by a student. Collectively they agree to call it 'the shapes game'. The target age range is agreed at 1-3 years. The dimensions of the toy are measured by the teacher: height 130 mms, width 115 mms, length 115 mms.

"The materials?"

Students respond with "plastic."

"Does the plastic look the same?"

A student offers: "One part is see-through."

"What's another word for see-through"

"Transparent."

"Are the parts removable?"

"Yes."

"Is it colourful?"

"Yes."

"Is it educational?"

“Yes.”

The teacher issues the following instructions: "Form groups of three, then select the toys for analysis. Carry out the analysis as a group and try to evaluate six toys."

At 9.25 am students are in self-selected groups and an individual from each has chosen a toy for analysis. Each of the groups (6) proceed with the task. They have 20 minutes to do this. By 9.30, one group has completed the analysis of their first toy. The teacher draws the class' attention to the blackboard where she indicates the way to write the measurements:

300 x 40 x 150

L x W x H.

Students return to their tasks. The group I am observing agrees on the following:

'Material - Plastic (different types).

Removable Parts - No

Colourful - Yes.

Educational - No.'

The teacher circulates from group to group and listens in. She encourages them to move along. For a group analysing a toy saxophone she clarifies what the length, height and width are by drawing the dimensions on the board. Students, in their groups, continue to analyse the toys.

On the board she writes: Analysis of Toys

Conclusion: I have analysed a range of toys that are suitable for young children and can now suggest suitable toys for a particular age range.

<u>AGE</u>	<u>SUITABLE TOY</u>	<u>REASONS FOR CHOICE</u>
0-1		
1-2		
2-3		
3-4		
4-5		

At 9.50 the teacher calls the class to attention. She reprimands some students for playing with the toys. She focuses the class' attention on the quality of colour and probes students to consider why colour is important and why primary colours. She indicates that ticking the box does not provide much information. She questions their understanding of why a toy may or may not be educational.

She draws students' attention to the conclusion written on the board. Collectively the class is asked to consider an appropriate toy for age range 0-1.

A student suggests a rattle.

The teacher probes: "Why?"

"Because of the sound. The child can hear it."

"Yes. A pleasing sound that the child is attracted to."

The teacher then instructs the class to copy what is on the board and to take out their homework. They are reminded to ensure name and form is on their work. She indicates that they have 10 minutes in which to finish the task. They work silently.

"Take out your homework diaries. Bind your work. Take it home. In your diaries write down your homework." She writes the following on the board:

'Homework

- 1) Complete conclusion
- 2) Cut out at least 10 examples of toys for young children from catalogues and bring to the lesson.'

A student asks if the reasons for the conclusion statement are taken from the analysis sheet. The teacher indicates this is what is required.

"Bring examples of toys from the catalogues to the lesson. Don't stick them down. Remember to bring your work to the next lesson. You will be in this room. Push your chairs in and line up at the door. Return rulers if you borrowed them." All chairs are pushed in and students leave the room.

Snapshot of an English Class

The English teacher defined self-evaluation as "... a method of identifying how you can improve. It is a reflective process, looking back over what you have done and thinking for yourself how best you can improve your work."

The English teacher, who had a major role in the school production during the spring term, was also a form tutor. She believed she had integrated student self-evaluation into her teaching practice and had greater opportunity to do so. For example, "When the students present something to the class, read out their work, give an opinion, discuss a topic, in pairs or in groups, and report back to the class I see that as a form of self-evaluation." She encouraged students to reflect on their readings, analysis of poems and asked questions to connect to their own experiences and to elicit their

personal responses. She required them to report back either through their written work, or orally across the class, individually, in groups, or with peers.

For example, students had to compile a poetry anthology and to write a commentary for each poem selected in the poetry unit completed in the autumn term. A female student had selected poems written about, and by, black women such as *Of I* by Thandiwe Benjamin.

Of I
Black is the colour
Of I
Black is the culture
Of I
Black is the rhythm
Of I
Of my body and soul
My heart and mind
Black is my
Heritage.
In Africa
Is planted the root,
In West Indies
Stands the trunk
The branches
Stretch out
To England
And America
Of all
I am aware

The student's self-evaluation (as defined by the English teacher) included the following: "Black is my colour and my culture that's why I chose this poem. In some ways it says how I feel. This poem makes sense to me in many ways." (Year 8 Poetry Assignment, 1994).

During observed English lessons when the students were reading a novel (*Buddy* by Nigel Hilton), together with the teacher, there were frequent opportunities for students to reflect on their own experiences and connect with those being presented in the narrative. For example, Buddy feels that his mother has left home because of him. A boy is reminded of a film he has recently seen called *Mrs Doubtfire*. He explains to the class: "They was arguing. It doesn't have to do with the kids. They've lost love for each other" (Observation, 1994).

During the following lesson students are asked to write answers to questions; one included: 'Buddy does not stick up for his friends when racist remarks are made. Either write about what you would do in this situation or how you feel about racism.'

At the end of this lesson the teacher explained that there were racist comments in the novel and that some of the joy in teaching for her came from discussing such real life issues in a multicultural context with care and sensitivity.

Informal student self-evaluation was carried out in the English class for the attainment target of Speaking and Listening. Students self-evaluated and critiqued their own work and that of their peers. The English teacher saw drafting of written work as another instance of self-evaluation: "Once they have done a piece of work, I get them to check over it for themselves first, especially for technical skills, errors in spelling, punctuation, grammar, paragraphing. I also ask them to think about the content. I will then mark it for them and suggest a few pointers or have them sit next to me and go through it together. They will spot some mistakes and I will point out the ones that they have missed. Then they will redraft their work again."

Snapshot of a Religious Education Class

The Religious Education (RE) teacher believed that self-evaluation was an unpressured way to understand the students' feelings. She had implemented it formally on an ongoing basis in her classes. She stressed to her students that self-evaluation was about what they felt they had learnt and achieved, their evaluation of where they had not achieved, and the effort that they had made. The learning, as opposed to the teaching side, of self-evaluation was highlighted here.

At the end of the spring term in her year 7 class I observed the emphasis on student self-evaluation in her teaching. She believed students had a right to evaluate the course, to judge what they thought was interesting and worthwhile. She stated that students' suggestions for improvement proved valuable in revising the course. She also believed that students knew what they had, and had not, learnt and that they knew what they needed.

On the first of July the RE teacher organised a lesson for year 7 students where she incorporated student self-evaluation. There are 23 students (10 girls and 13 boys). They are seated in desks which are arranged in a 'U' shape, the teacher's table is at the front of the room. There are plants on the window sill and on the floor is grey carpet. Posters and students' work are displayed on the walls. The students have photocopied sheets in front of them and the teacher selects the next person who is to read out a section from the comprehension passage.

After the student completes reading the passage Ms Abbott explains that there are two halves to the lesson today, and that they are about to leave the comprehension exercise. It is approximately 9.20 am.

"What we are going to do now, is think back over the year, and for you to look back over the work we have done. The reason is because I want to get your views, that is, why we get some things right and some things we don't. If you do finish this (the self-evaluation questionnaire which she distributes) then you have this (the photocopied comprehension sheets which the students have on their desks) to go on with. I'll go through the questions. Look this way. You have to take this seriously."

She begins to read out the questions:

"What have you done best in RE this year? I want to know what you think of my teaching, I'm a human being so be gentle with me! In what ways could the year 7 course be improved?" She continues to go through the questions which include.

2. What did you find the most enjoyable? Why?
3. What lesson did you find the least enjoyable? Why?
4. How interesting do you find RE on a scale of 1 - 5?
5. In what ways do you think that Ms Abbott is an effective teacher?
6. In what ways do you think Ms Abbott could be more effective?
7. Do you feel that you are helped quickly in RE?
8. Do you feel valued in RE lessons? Why?
9. In what ways could the RE Year 7 course lessons be improved?
10. Do you feel that you have achieved in RE this year?
11. Any other comments?

"For some of you, this will be easy, for others you will find it difficult. It helps me to work out what I need to change. Are there any questions? Anybody not clear about what has to be done? Put your hand in the air if you know who you want to work with."

Some students settle into their pairs while the teacher organises others into pairs or triads so each student has someone to work with. Students commence talking to one another about the questions.

"Miss do you write the questions down?"

"Yes. The title is Self-Evaluation Questions"

"Miss, is the best the one that you thought was fun?"

The teacher indicates that this is correct.

This girl has written: 'My best piece of work is when we had to act out the play Joseph and Mary. I liked it because I like doing drama.'

The students are working at varying paces, for example, one student is on to question four while another asks for the teacher's attention. A boy has written: 'I think the best thing I have done is the communication work.'

At this point a student asks for clarification regarding the rating scale. The teacher responds: "One is the most interesting and five is the least. You need to give your reasons as well."

Students work through the questions occasionally talking to one another. I listen to two girls who have decided on a rating of two because 'sometimes it gets too noisy.'

I read the following written evaluations:

'I think that Miss Abbott is an effective teacher because she keeps the class under control, she involves the whole class in activities and she doesn't talk for hours and let's the pupils in the class read the sheets.'

'I think that Miss Abbott is an effective teacher because she can keep the class under control and she tells us what to do and how to do it in detailed way so that we understand the work.'

Students raise their hands if they need help and the teacher moves across to those students.

I note the following suggestions for improvement:

'The lessons can be improved by the teacher making lessons more interesting and fun by doing more practical rather than writing and drawing all the time. That is way (sic) I think people in the class do not do as good work as they could.'

At this point in the lesson the teacher clarifies question eight for the class. "Do you feel valued in the lesson? means do you think that I consider your opinion as valued. If you don't feel valued write it down because I need to know."

At 10.00 am most students are on to question eight and appear to be discussing the questions. A student checks with another to find out in what ways the course could be improved. "By doing more interesting activities and not writing all the time." At

10.05 the teacher says: "I have asked you to stop and listen. Put your hand up if you heard me. Put your pens down. Just for five minutes, whether finished or not." The teacher goes through the questions orally and gets the feedback from the students.

"Sh Sh Jackson. The only way feedback works is if you listen and respect what people say." She goes on to ask the class what they consider to be their best piece of work. "What lesson did you find the least interesting?" Five students indicate the apple lesson while twelve indicate that it was the most enjoyable.

She moves the lesson along: "Quickly get your home work diaries out."

The students groan, as they reach into their bags for their diaries.

"Boring, boring," a student mutters to himself.

"Right! Shush! Write, what would you be interested in learning in RE next year? Let me see if I'm getting things right. You might be interested in world religion."

Students chorus, "Yes!"

A student collects the previous homework sheets and the students begin to pack their bags and hand in their self-evaluation sheets. They are speaking loudly to one another as they move around. At 10.10 the teacher calls out to the students to sit down. She waits. "I'm not very pleased. Put your hands in the air if you think that was satisfactory?" No one puts up his or her hand. Several attempts to file out quietly are made before the class is finally released.

Snapshot of a Humanities Class

The formal process of student self-evaluation used by the humanities teacher resulted in an "admin" folder for each student. It originated from the student practice of writing their reflections on "how they got on in the lesson". The teacher decided to formalise the process by requiring students to record their self-evaluations in a separate folder (the "admin" folder). Advice received from the History Inspector prompted this teacher to give students more guidance in the form of specific criteria, reframed as questions. For example: "How did you get on working in the group today?"; "How did you get on working on your own?"; "Which aspect of today's lesson did you find particularly difficult and why?"

This teacher integrated this form of student self-evaluation into her classroom practice. "Admin" folders are stored in boxes in a cupboard, students get their folders as they enter the classroom, at the end of the lesson they answer questions about their

performance or work. She was exploring the potential of this idea. In checking student self-evaluations the teacher gave the following examples: "I didn't work too well because I talked too much." and "I didn't get much done today because I felt too ashamed to put my hand up and ask. So I sat there and I had a try and didn't get as good a mark as I should have done." The teacher was shocked by this latter student's evaluation. She discovered that the student thought everyone else appeared to be succeeding and seemed to understand, so she did not ask for help. The teacher indicated that she would never have known this had she not read the student's self-evaluation.

In an attempt to get students to read her written comments to prevent them from making the same mistakes, the teacher asked students to include a teacher's advice page. She explained: "When I mark the books, they write down ... the latest ... advice they've been given on how to improve, so they have it there for reference." Students were required to read the comments, analyse them, and reiterate them in their own words. Students were not offered the opportunity to question this information. The teacher elaborated, "They see what their mistakes are, what their strengths and weaknesses are, then we can set some targets. They then work out what they've got to do. ... They assess for themselves whether they have achieved their targets." This latter part of the process was seen by this teacher to be feeding back into the self-evaluation process.

SUBSTANTIVE THEMES

Informal and formal student self-evaluation processes were identified. The following themes emerged from an analysis of the data base compiled for the Forest case study: the key dimensions; the supports; and constraints for student self-evaluation.

Informal and Formal Student Self-Evaluation

In addition to the formal and informal student self-evaluation processes described in the snapshots above the following were identified.

The RE teacher had integrated informal self-evaluation methods into her teaching practice; for example, at the end of one unit of work students were asked to imagine that they had a suitcase. Their evaluative task was to pack all the learning they had achieved, and enjoyed, into the suitcase and to leave outside all the things they had not. She indicated that some students enjoyed the task, others did not. She saw self-evaluation as a reflective exercise which needed to be differentiated so that students

(particularly those who had difficulty thinking abstractly) were provided with concrete exercises to help.

Structured student self-evaluation was planned for the end of each unit of work, however, due to time constraints it was sometimes neglected. For example, the English teacher felt students were aware of the assessment criteria for each unit but the opportunity to evaluate their work and to judge whether these had been fulfilled did not take place. Due to work related pressures, self-evaluation was postponed until such time had lapsed that it was unproductive to carry out.

The student statement was another formal example of student self-evaluation which constituted an important part of RoA. The students self-evaluated using teacher feedback about where they could improve, where they were succeeding, and failing. A student explained, "From that we ... write an evaluation for each lesson and we combine it together with our RoA ... which goes in our folder and stays with us for the rest of our life. It's like a curriculum vitae but the personal particulars are included like what your personality is like, what you enjoy and things like that."

Key Dimensions of the Student Self-Evaluation Process

The dimensions of student self-evaluation which appeared to be significant in this case study were the use of criteria, the interactive dialogue and action planning. Feedback emerged as a property of interactive dialogue. In the discussion which focused on the student's self-evaluation there was feedback for the student, and also for parents and teachers.

Use of Criteria

The English teacher provided students with a rationale for each new topic and its relationship to the program and previous learning. At the outset students were given the criteria (such as: handwriting; spelling; presentation; punctuation or use of imagination) by the teacher. At the end of a unit students self-evaluate using these criteria. The English teacher elucidated: "... they can look at the assessment criteria, ... they can also go back and look at all the things we have done, and then they can decide for themselves whether they have fulfilled those criteria. They write down their personal opinion and then I will write a personal opinion." This process, however, was not observed.

The technology teacher described how student self-evaluation had shifted from a focus only on general competence with questions like, 'What skills have you learnt? What tools have you learnt to use?' to a more comprehensive evaluation of

performance and achievement. She believed that the provision of specific criteria and their use by students helped them identify competently what they had, and had not, achieved. She thought it was motivating for some students to participate in this process because it highlighted their individual progress. They were no longer simply interested in comparing the tangible outcome (of a model) with the efforts of others. She indicated that from her previous experience some students were disillusioned and felt negative about technology because they judged their own models to be inferior. Self-evaluation of their achievements (when discussed with the teacher or tutor) reinforced what they *had* accomplished and highlighted what they *could do*. The technology teacher believed that a written self-evaluation therefore fulfilled an important motivational function. The learning experience was acknowledged, and a sense of achievement reinforced, despite the fact that the model was incomplete. Students were also aware, for example, that they could mark up wood or plastic accurately.

This teacher designed a checklist to focus attention on achievements as evidenced in the students' folders of work. She thought this would help students in the evaluative process and would indicate where they could improve. The provision of criteria, whether as a checklist or framed as questions, proved useful. For example, "If they have the criteria to refer to it means that *they* can assess, with staff, what level they have achieved."

The technology teacher used the terms analysis and evaluation interchangeably, in her explanation of student self-evaluation to the students. She did not teach explicitly the evaluation process, nor did she discuss the concept of criteria, and their use in making judgements. Nevertheless some students had integrated the criteria for the design specification. For example when this technology student was asked how she self-evaluated she responded:

"I would think about the child, if I were a three year old, would I want to play with that toy. ... It's brightly coloured and I think I would see it, and think I would want to play with that, ... would keep me quiet for a little while. I think that it's important, that when you're making things, don't rush into it, and that you think about what the child wants and not what you want."

Many of the technology students interviewed, demonstrated an understanding and an integration of the criteria for evaluating whether their toys met the design specifications. Students had to design three models of different toys which would capture the interest of a child aged one to five years. They judged the best design then used it to make the toy. A student explained:

"I thought which toy has the most activities, and the most was the house. Then how much education could the child get from the toy, and is it easy to make, and you know the colours. Which one is most colourful? And can it be carried around easily and stuff like that. ... I'm using wood and some plastic ... I've made it educational and it has to be for a child one to five years old."

Interactive Dialogue

The interactive dialogue between student and teacher (or tutor) seemed important. Students, in discussing their identified strengths and achievements, appeared to be reinforcing their learning, focusing attention on skills acquired, identifying areas for improvement and development, and constructing an understanding of the standards expected. This process helped develop the student-teacher (tutor) relationship.

The action planning pilot program integrated student self-evaluation processes; it was essential for students to reflect on their work and talk about this to their tutors. Some teachers perceived this interview to be a powerful learning experience for students. The one-to-one situation facilitated teacher feedback which seemed to have an impact. It was felt that student self-evaluation processes could not operate in isolation and teacher guidance was important. For example, the action planning coordinator commented: "I think that what is important during the student self-evaluation process is the one-to-one. I don't think that the students know which way to go unless they are guided. ... if we can get one-to-one then it makes them feel very special in terms of being singularly targeted. They're looked at individually. No one else matters in that interview" (Interview, 1994).

The year 10/11 students of the action planning pilot were required to set specific, short-term targets and identify areas for improvement during the interview. If a second interview was required the focus was on improvement and the impact on students appeared to be one of motivation and incentive to do the work. "It seemed like [the students] were really being ... upgraded ... they came out feeling a bit special because senior management were interviewing them. It's given them a sort of boost" (Action Planning Coordinator, 1994).

At Forest each tutor has approximately 30 students, and during tutorials, he or she helps the student write their student statements. This requires student-tutor dialogue and provides an opportunity for collaborative consideration of student work. The tutor's role was important in facilitating the self-evaluation process through raising student awareness of their strengths and weaknesses. Contact with the students' teachers about their progress, highlights for the tutor, areas for student improvement.

The English teacher indicated a typical student-tutor dialogue: "How are you getting on in geography now? Your geography teacher has spoken to me and [he] is concerned. How are you going to improve? Let's review in a couple of weeks."

Tutors are expected to explain the assessment and self-evaluation processes involved in writing the student statement during Personal and Social Education. Students self-evaluated when writing their statements which were checked by their tutors. The technology teacher provided an insight into the negotiation process involved in writing the student statement. The following example, illustrates the need for students to be provided with guidance to make more informed evaluations of their teaching and learning experiences.

"The student statement is focused on the positive as well as the negative. Some students write things like: 'I thought that such and such a lesson was boring.' You then have to steer them towards thinking about why they feel it's boring.' - We negotiate ... maybe they don't feel that they have been motivated and they write down why that is. In most cases it's the fact that they don't find the subject interesting. They put down ... 'I realise that's a problem, I've got to make an effort to actually give better within it.'"

The humanities teacher believed, as a tutor, she had developed a comprehensive understanding of the students in her group and was able to question them about their specific experiences. 'Have you thought about putting this in?' was a question she was often able to ask of her students. Providing students with guidance and support during the self-evaluation was considered by her to be important.

In the above instances the interactive dialogue took place between tutor and student in the context of the Personal and Social Education program. During these interactions the students were sharing their self-evaluations which were of a very broad and general nature. A problem which emerged in this context was that students were not reflecting critically on their learning and were not provided with specific criteria or enough information to make informed judgements about quite abstract skills. This is a problem which emerged in the pilot scheme of RoA (Broadfoot et al., 1988).

From the interviews with subject teachers, and observations of their classes, the interactive dialogue seemed an important dimension of student self-evaluation. The English teacher interacts with the students during self-evaluation in this way:

"They look back at their work and ... I often ask them questions: 'Are you giving your best in English? ... How do you think that you can get back on task? How can you best see yourself moving forward?'"

The technology teacher valued student self-evaluation. She explained how she integrated it into her practice and highlighted the negotiation of standards and construction of meaning through this interactive process:

"It's useful to go through ... their assessment with them, because it's not just for checking purposes. It's to help them put on paper what they actually feel. To negotiate *how* they are going to actually structure that particular sentence. I had a student who said she was absolutely wonderful! She could do nothing wrong! We went through it, then she realised that it was over the top in some areas. She toned it down."

While these teachers stated that they valued this one-to-one it required skilful classroom management to organise time for it to happen. When time was lost because of INSET, bank holidays or teacher illness, it would appear that student self-evaluation was not incorporated into the teaching and learning program. Rather it was postponed or delayed or set as a homework activity.

Students valued the interactive dialogue with teachers because it seemed to clarify, inform, reassure and provide valuable feedback in the self-evaluation process. This student's comment helps to illustrate: "... maybe there is something that I missed which was good about the work that I did, and I thought it was not good, and if Miss says something about it, may be it *is* good!" This student explained how discussion of her three models with the teacher helped her decide the one to make.

Feedback

Feedback during the self-evaluation process was valued by students, but there was also feedback for teachers and parents when they discussed or read the student's self-evaluations. Teachers stated that student self-evaluation could not occur in isolation, it was important for students to have a professional judgement with which to compare their own evaluation. Students and parents also acknowledged the importance of teacher feedback during the self-evaluation process. A parent stated: "I think that they (the students) need the teacher as well as their own evaluation".

The teachers received feedback about students' perceptions of their learning and teaching experiences, which included how teachers could improve their teaching. The students received teacher feedback which impacted on their learning. Parents received feedback (from their children's self-evaluations) which helped them understand their children's progress and areas for improvement. Discussion of their children's self-evaluation with the teachers provided them with further feedback.

Sadler (1989) has highlighted an important function of feedback in terms of its effect rather than its informational content. Teachers described such impact as a catalyst or 'a trigger' for the student. Teacher feedback seemed to fuel the self-evaluative process. For example, "... if the students evaluated their performance in science as good, then compared that with the science teacher's assessment, which was not good, they would then have reason to reconsider: 'I thought I was good at science. I'm not really. What do I do?' On the other hand if they think that they are good at science and yes the teacher's assessment also says that they are good at science, they feel their confidence is boosted" (Action Planning Coordinator, 1994).

Students themselves described how feedback (in the context of self-evaluation) helped them make a judgement "if I write something about my work and I read what the teacher writes, like compare them, I see if I made the right choices or the right decision. Sometimes if you say what you've enjoyed, what you think you're good at, then the teacher will say whether they agree with you."

Students indicated that teacher feedback helped them focus on areas of weakness, highlighted their strengths, identified the need for teacher assistance and caused them to think about what action to take. Students used teacher feedback (past verbal and written comments or reports) when they wrote their student statements. Their teachers' reports were sent directly home to parents and sometimes were discussed collaboratively. For example, "I went through it with my mum. She looked at it, and she said if I had done this, what the teacher said, I could improve my mark. I tried to do that."

Students also stated that feedback, through interactive dialogue with the teacher, had helped them set themselves higher standards. For example, "... [the teacher] said that if I ... tried a bit harder I could end up doing very well because I am doing good at the moment. She said it is just a matter of ... concentrating more and trying to forget all the other things that distract me. ... I've tried to sit away from people that I talk to and concentrate more."

A student explained how her self-evaluation was examined by her parents who provided her with further feedback: "My parents looked at my statement, and the teacher's, and said: 'You're doing quite well in these subjects but you definitely need to improve in these ones. How are you going to do it? And I said: 'Well I listened to, and read these assessments, and pay heed to them. We had a parents' evening where we (tutor/teacher, parent, student) get to discuss assessments and say what the actual

problems are. The teachers discussed it with my parents. We discussed what was going on and how I've improved."

In the Humanities class students wanted the teacher to read their self-evaluations of how they got on in the lesson and wanted the teacher to also comment. "I think that the teacher should comment on it as well and I think she should write how she thinks that you got on in the lesson" (Student Interview, 1994). Feedback to teachers from students also appeared to have an impact. The humanities teacher was asked by her students to check their "admin" folders. She had planned to check them on an occasional basis but the students had pressed for more frequent feedback. Upon checking students' self-evaluations of their performance she was surprised by some students' judgements. Some believed they had worked well which did not correspond to her assessment, while others, believed they had not performed well yet she thought they were 'getting on'. She went on to explain: "Now, because we've focused the question more, they are actually telling why. They are becoming more aware of what they are writing, and most of the students are fairly honest about it." Some of the students from the Humanities class indicated that they were able to provide the teacher with feedback about the lesson. On occasions they indicated the particular activities they enjoyed or did not enjoy.

The RE teacher saw student feedback as an essential part of learning and teaching. She found receiving student feedback rewarding but also daunting:

"... sometimes it is one of the hardest things to listen to. ... [A] lot of the feedback that you perceive you get from children is quite negative and usually the negative things stand out more than the positive things. I was quite surprised to see on the self-evaluations all the positive things - and that they actually like you - which is equally important to find out! I did not expect to get that from the evaluation, especially comments on the way that I teach, because that was totally off their own bat. I was quite surprised and quite encouraged to pick up on some things that I'm getting right and to find out things that need improving. I like the fact that it is an encouraging process and that students say things that they want."

The following comments from student self-evaluations of their teaching and learning experience in the RE lessons, illustrate the potential impact of their feedback for the teacher. In addition to what students felt they achieved, the RE teacher was also interested in finding out: what students did and did not enjoy; their level of interest in RE; their perceptions of her teaching effectiveness; whether they felt valued and their ideas for improvement. For example:

"I found the communication through art and symbol the most enjoyable because it involved the students in the lesson and I think we worked better."

"She involves the whole class she doesn't talk for very long like other teachers who do."

"Yes I do feel valued in RE because Ms Abbott takes your answer and uses it not just thinking that if it's not what wanted saying 'No that's silly.' She does not reject your answer."

For the RE teacher this was important feedback which she hoped to act upon if time would allow.

On the parent-teacher evenings, parents received feedback about their children's progress. Students indicated that teachers gave elaborated feedback and suggested areas for improvement. Students valued this because: "you need to know where you are going wrong and how you can improve or what you are doing right and understand the path along how you are doing it right."

Both parents and their children, received feedback at these evenings. For example, "I have learnt that my son needs to buck his ideas up. He's a bit lazy. Every single teacher says the same thing 'very bright boy but he's lazy.'" The student in his statement had indicated that he would work harder. His mother explained: "He has improved over the year ... He's trying and he is improving. He is a bright child but he is just lazy. You've got to push him all the time."

In some cases the parents reiterated and reinforced the teacher feedback for their children. For example;

"They (parents) tell me what the teachers say. When they come to the parents' evening they talk about it, and write notes down, and when they come home we talk about it. They say what the teachers say I'm doing right, and what I'm doing wrong, and how I can improve. ... It helps because my parents want to know. They are concerned about how well I'm doing at school."

This highlights the important role parents can play in the feedback process and the way they can reinforce tutor or teacher feedback. Coleman (1995) has indicated that the triad of teacher, parent and student (as the basic learning unit) is important to classroom and hence school improvement. A parent commented: "Achievement in

the school depends on the positive type of relationship that develops between teachers and parents. ... Teachers need to appreciate the value of parents ..."

Action Planning

Action planning was a priority in this school for some teachers and students. The teachers who were interviewed saw action planning as being connected to self-evaluation. For example, "I think that the other aspect of student self-evaluation, that is important, is the action planning which shouldn't be long term. Very short term so they can be reviewed." During the review students are accountable to their tutors for why they have not achieved their short term goals. It is also at this stage that tutor and student negotiate a plan of support or further action. These teachers felt that when students aimed for specific goals they were more focused and serious in their improvement efforts.

Students saw action planning (and self-evaluation) as related to the student statement of their RoA. One student acknowledged: "I didn't take the action planning seriously in the early years but when I was in year 9 I really tried hard in all my subjects. When I got to year 10 I was recommended to take an extra GCSE subject. I've been trying hard and it's paid off. ... I did pretty well and I was really happy with my achievement."

Parents indicated that the action plan was an important aspect of student self-evaluation. This mother stated: "At *least* it makes the *child aware* that something has to be done." In his action plan her son had written: 'To try and hand my work, and course work, in on time and to meet deadlines, to be less sarcastic and to be more helpful to teachers and to talk less in class.' Another parent indicated the importance of action planning from his perspective: "It (student self-evaluation) has value because it shows insight, perception. It's the capacity and the will to structure it that is of benefit." Yet another stated: "I think that it (self-evaluation) is a good idea. ... I keep telling my son that you cannot achieve something unless you set yourself a target. You have to set a target and then you can go towards it ..."

A student's self-evaluation stated 'I think that I work quite well in groups and independently. I am always very punctual and polite and I enjoy doing written work. Her action plan stated 'To pass all of my GCSEs and I think I could do this by studying harder.' Her mother stated: 'I think this is a true assessment of herself and I think she is capable of doing it. ... I don't think she realised the importance of this (self-evaluation) until the last couple of weeks. ... At least she knows where she's gone wrong and she's going to work harder so I will give her that.'

Students acknowledged that setting specific targets after self-evaluation had been beneficial: "coming from the previous work I have to write the targets like what I could do for the next term. I think that I have improved from that." Targets set by students included: 'complete more work during lesson times, encourage myself to develop a better understanding of religious education and become involved in group discussions more often'.

Supportive Conditions for Student Self-Evaluation

The following conditions facilitated the implementation of student self-evaluation: valuing student self-evaluation; pedagogical change; honesty; commitment and an evaluation ethic.

Valuing Student Self-Evaluation

Some teachers valued student self-evaluation. They observed that when some students reflected on their work they were thinking metacognitively. Teachers felt that the process of involving students in judging their own work provided them with opportunities to critique it, and to think about it from another's perspective. For example,

"I feel that all students ... should have some kind of opportunity to evaluate their own learning ... It's getting students to look at issues from the perspective of others and to involve themselves in decision-making so that they are more able to make valued decisions and perhaps better decisions when they leave school."

Another teacher commented:

"They were actually coming out with things that showed that they were thinking about themselves. That made it more ... valuable to have that information."

Students valued self-evaluation because it highlighted skills or subjects for improvement: "I learn ... I can always make it (writing) better, I can improve it." Such impetus for improvement also related to examination performance. Others saw an impact on their self-esteem by providing an opportunity to "learn how to value [them]selves."

A parent valued student self-evaluation but stressed the importance of context "one always has to have the space and the room to be able to look at oneself in a specific environment. It's not looking at oneself as a person, alone, but it's in that

environment." Another parent commented: "It (student self-evaluation) is a good idea for (my daughter) to know what she is doing. If she is confident about it (learning) and enjoying it then she will say so, and even if she is not, she will also say so. I think that it is a good idea for them to inspect themselves and to think about what they want to do."

Pedagogical Change

A priority for this school was to raise student achievement through changed learning and teaching styles. The way that learning was delivered was seen as important. An attempt to introduce flexible learning was being made in some classes. In implementing flexible learning the SMAD coordinator realised the enormity of the change: "... some teachers are frightened of moving the students from rows because of the control aspect of rows. ... It depends on what you see as a working atmosphere because my room is very rarely silent. Most of the time someone is talking ... I usually encourage students to discuss with their neighbour."

For some teachers there was a need to raise student output by less teacher-directed learning, a reduction in teacher input with students simply completing questions, and more student independence to do the work. As a consequence of the professional development day on flexible learning some teachers implemented physical classroom changes. One of these teachers commented: "My room is constantly changing, I move the desks around a lot, to try to see if something different will work. I would like the standard flexible learning lay out, where you have the island in the middle with the resources and the tables going around, but the rooms just aren't big enough so then you have to compromise."

The humanities teacher explained how she achieved independent student learning. "A large percentage of work ... in a lesson is the students doing the work rather than me doing it. I give an explanation at the start, go through what we've done in the last lesson, and what we are going to do this lesson (so that they are quite clear about what they are doing). There are various tasks. Sometimes they work in groups, sometimes on their own, sometimes it is research based with presentations. There are lots of different things but with the emphasis, very much, on the students doing the work, finding things out, presenting it and working it out. Rather than me standing there, telling them the answers."

Some teachers expressed a need for a move back to a student-centred pedagogy: "We can't change the curriculum because it is the national curriculum. Yet at the same time we can perhaps change the way in which we deliver that curriculum and try to

make it less stressful. Try to help the students, from a personal point of view, as well, because there are certain skills that they will require on leaving school" (Interview Assessment Coordinator, 1994).

The technology teacher (who had reflected on her practice in the light of student self-evaluation) made changes to involve students in their own learning. "Basically making them realise that it's *not* about telling them how many marks it is [worth], or whether it's right or wrong, but it is about decisions, and that things are better because of these reasons. And to get them to understand the criteria that are used." She modified her teaching program after reflecting on past work tasks and teaching aids. She realised the need to provide students with tasks which drew on their past learning experiences. She wanted better connection of learning outcomes with previous learning and current learning tasks. She also wanted students to work through their problems rather than be teacher-directed. She believed that students had more control over what they were doing as a consequence of these pedagogical changes.

Students had their own suggestions for change. For example:

"The coarse (sic) could be made more enjoyable by doing practical work and involving all the class in large group activities."

A student from the English class observed:

"I enjoyed the magazine (project) because it gave you the time to put all the things that you really liked into it, because instead of the teacher telling you exactly what to put into it you were able to put what you wanted into it so that was OK."

Honesty

Students have to be honest about their failings and areas of weakness and to recognise where, and when, they need help. Some teachers, students and parents felt that on the whole students were honest in their self-evaluations. Teachers believed that they could identify those students who did not take the self-evaluation exercise seriously and who were not honest with themselves. These students could not see the relevance to them, personally; rather they saw self-evaluation as a task to be completed for the teacher. The turning point for some came with the tutor-student interview where students realised that: 'it wasn't a teacher exercise!' Entwistle (1987) quotes the work of Desforges who showed how pupils try "to deliver what the teacher is predicted to reward." Entwistle suggests that in trying "to please the teacher students will go to great lengths to disguise their misunderstandings which prevents the teacher from giving effective help with the difficulties" (p. 88).

Some teachers established a particular classroom culture where students felt the teacher's trust and where honesty was valued: "It is important for kids to trust you. I think that it is really important for them to know that you respect their judgement and you trust their honesty. ... I encourage kids to be honest about their own work and honest about their own capabilities and praise them for it" (English Teacher Interview, 1994).

The student self-evaluation process did encourage some to regard their work honestly: "I learnt how to kind of see my work, and say how I see it and how I could actually improve it. It's easier because you don't lie to yourself ... You just write the truth."

In some classes students did not feel that they could be honest. For example, "The teachers say to be honest when you are writing ... and sometimes I am. Sometimes I write that I liked the lesson but I didn't. I think that other people do that." Some parents questioned whether their children had been honest in their self-evaluations. For example,

"I used to think in principle that they should, stop and assess themselves and now it's become just a parody, it's become meaningless. ... My son says what he thinks he is supposed to say. For example, he comes home and says 'RE is the most boring subject in the world!' but in his statement he says 'I think that RE is quite interesting.' He says he's not allowed to put what he really thinks."

Another parent commented:

"... This particular instance (student statement) here for Don is very accurate; his own assessment of himself. It makes me wonder why he doesn't do something about it! It's very honest actually. He's got a pupil action plan. He's identified the problem for himself and he seems to want to do something about it. It remains to be seen whether he does or not."

Some parents agreed that student self-evaluation encouraged their children to be honest in their evaluations.

Commitment

Teachers, who were interviewed, identified that staff had to be committed to the self-evaluation process for it to be implemented successfully. For example, "Getting people on board to see it is a valuable thing. ... way of going forward."

Students too need to be committed and accept self-evaluation as part of the teaching and learning process. However, as indicated by some staff, this would not happen if teachers did not value the process in the first instance. Students need to understand the purpose of self-evaluation and experience it, but not so often that they become bored with it.

One teacher indicated that the action planning for the GCSE students could be more successful if commitment was made through the allocation of time and support for proper implementation. She stated that:

"If pupils are going to assess their progress, give themselves goals to improve, and deadlines by which they wish to have achieved those goals; it must be seen to be delivered. Time must be given to them so that they can evaluate what they have done."

She indicated that those occasions were not given enough importance, deadlines were broken, and students forgot about it. She emphasised that when promises were broken the message received by students was "that it is not as important as it was made out to be." Another teacher agreed: "... the momentum has to come internally and it needs creating that kind of environment ... that sort of commitment is quite difficult."

Evaluation Ethic

Establishing a shared understanding of the processes of self-evaluation and practising it across the school requires careful development of an evaluation ethic. Teachers, parents and students need to understand the purpose and function of self-evaluation. This implies training and development for students, as well as, staff. This teacher wanted parents to also understand the implications for students of the self-evaluation process:

"I said to parents at the parent evening their children must check their work, and when they are doing their work, they must go over it again. They must be aware and identify things that they can do to improve."

The wider school context plays a role in the establishment of an evaluation ethic. At Forest this was partially accomplished through the valuing of students' views and needs. The SMAD project aimed for greater student involvement and encouraged them to contribute their ideas and participate in school decision-making. They were given responsibility and realised they had to work with teachers in a cooperative way. Students consequently felt part of the school organisation with a greater voice in the decision-making. They felt that the school was doing something important for them

and taking an increased interest in them. This was seen with the introduction of the school council, a body to whom they could put their suggestions for improvement. The resultant outcomes included: a common room, homework and revision classes.

Involvement in self-evaluation at the school level provided students with opportunities to develop vital core skills. Students recognised the improvements to their physical environment and their increased responsibility in the related decision-making. To evaluate their needs, students designed questionnaires, distributed these to the student body and involved younger students in the collation of results. 'Giving students a voice' was considered important for students for they had to reach consensus and make the final decisions on what it was they wanted. This was not an easy process.

Constraints on Student Self-Evaluation

The constraints on student self-evaluation included the reticence of students; discrepant approaches; conflict; lack of time and professional development; the pilot nature of the project and my impact as an observer.

Reticence

During the implementation of student self-evaluation teachers need to be aware that students are not always in a position to ask for help or are 'too shy to come forward to ask for another interview.' This was not a view that was shared widely among the teachers interviewed. Some students in certain teaching and learning contexts lacked the confidence to ask for teacher clarification or help.

"I didn't get much done today because I felt too ashamed to put my hand up and ask. So I sat there and I had a try and didn't get as good a mark as I should have done."

Discrepant Approaches

Some teachers did not think that students learnt much from student self-evaluation because they were not skilled in the processes. These teachers felt that the students needed to be taught a lot more about how to self-evaluate because "they tend to write down superficial things about what they think they are doing and what they are not." Some suggested that students needed to know the different phases involved and how self-evaluation connects to learning.

A teacher commented: "... they do an overall evaluation and I think that there needs to be more follow-up to it, for it to be taken seriously, and the action plan that follows

from it. I see the action plan as helping students to understand what they are doing and where they are going."

Some parents indicated that student self-evaluation as presented in the student statements was not specific enough. They wanted more information in relation to the student's targets and action plans. They suggested that students needed to demonstrate their progress more explicitly against past performance or specific criteria.

Many students referred to self-evaluation as an exercise carried out at the end of term. It was fulfilling a formal summative function and students had a range of audiences to consider. It was not intended to be solely for self-improvement purposes of a formative nature. In some instances, because of these tensions, it was reduced to a banal and superficial understanding. Action planning as an outcome of the student self-evaluation process was neglected or not given enough time for proper implementation. Students perceived the process to be unimportant and not relevant to their learning and teaching experience. Some implementation of these plans with appropriate follow-up was needed.

A major issue is the lack of teacher understanding about how to implement student self-evaluation. Self-evaluation needs to be taken seriously and given status throughout the school. Teachers appeared confused and a diversity of practice was evident. Inconsistent attempts at the implementation of flexible learning, a lack of focus and support, compounded the situation.

The varying definitions of student self-evaluation by students and staff suggested that there was a lack of consistency in approach. If student self-evaluation is to be implemented successfully then not only must it be valued but it must also be understood. Some teacher training is necessary so that teachers are confident in evaluative processes and can utilise them with their students and integrate them into their teaching practice. For example, "I don't think that there has been enough standardisation in what kids are asked to reflect upon. I think that it has to be very clear. The kids have to know why they are doing it, and what they are supposed to be commenting on. They have to have access to their own work and their own files etc and be given the time to discuss it with other kids."

Conflict

Through their involvement with the SMAD project, some students were encouraged to take increased responsibility. These students self-evaluated their needs and

identified priorities. Conflict associated the implementation of this change. The SMAD coordinator explained how exasperated she felt, and how she confronted the students : "I said I would have nothing to do with it. 'I wash my hands of that because you are not prepared to do anything for yourselves and I *am* not prepared to do it for you.' They finally got organised with what they wanted last week."

She elucidated how some students tried hard to engage other students, who were reluctant to be involved. She recognised that some year 11 students had been 'spoon fed', were too dependent on their teachers and had the attitude that 'it was easier to let someone else do it for you.'

Lack of Time

Time again appeared to be a major constraint. Teachers at Forest had experienced a range of changes and pressures: the National Curriculum; the Dearing Report; the introduction of appraisal; changes at Key Stage 4; Year 10 examination preparation; marking; reports; parent evenings; timetabling; staffing constraints plus day to day administrative tasks. All of these compounded the efforts to implement the innovative programs. The coordinator for assessment concluded:

"Asking tutors to give more of their good will, because these do take a lot of planning, ... you've got to give them something in return. ... You've got to give them meeting time, INSET time and it really needs to be done as a whole year team."

Teachers found it difficult to find time to invest in relations with each student and their work. For example, the technology teacher attended INSET (for her role as the Anti-Bullying Policy Coordinator) and was reliant on worksheets. She inferred this was not ideal for the year 8 group, given the 16 week module. Technology lesson time was eroded by the inclusion of PSE lessons and bank holidays. The teacher estimated that four lessons had been lost for this class. Consequently, time for self-evaluation was reduced. For example:

"I hope I'll be able to do self-assessment with my teaching group but it might not happen. It's more likely to happen as a tutorial, unless I can negotiate with the students to come back and go through the work with them."

The technology teacher reflected upon and edited her program of work. She developed new work sheets which "...made my life much easier because the students have understood that aspect of the work that much better. To know that it would make my life easier, I therefore made time to do it during a non contact time." However, time was a constraint, despite this attempt 'to create time.' For example, in relation to

self-evaluation and action planning, this teacher commented: "The tensions are more to do with having to overcome the fact that time is limited, and trying to fit everything in. Sometimes students are not in a position to plan their progress. For example, I realised that they wouldn't know the materials until the investigative lesson in the workshop."

For the RE teacher the major tension was getting the time to incorporate the information from the student self-evaluations into a revised course. For the SMAD coordinator (who was also Head of Humanities and the Union representative) the major difficulty was also managing her time. She valued her teaching, and considered work in the classroom, as her priority. "The project (SMAD) is there to support the work in the classroom not to actually take it over."

The English teacher also felt stretched for time with thirty students and an hour and ten minute lesson. She indicated that some students needed more time than others "... not just in looking back over the work, but in doing the work itself." She believed that she spent a disproportionate amount of time with these students and recognised that high achievers, who needed to be stretched and pushed forward, did not always get the equivalent attention. "The most difficult thing for me is to spread my time. [T]he middle band of kids ... miss out ... because the other two sections of the class demand more. It is that, that I find enormously frustrating, because it is just so difficult to differentiate in this kind of environment."

Lack of Professional Development

Resources to provide adequate professional development for teachers involved in the various innovative programs appeared to be lacking. For example, the action planning project, required the training of tutors in how to interview students, how to question, how to give feedback, how to answer questions, address problems and handle issues of confidentiality. This sort of training was not available to tutors at the outset of the project and would not be forthcoming if the project could not demonstrate an improved academic performance for the students involved in the pilot year.

The action planning coordinator explained the resourcing for the individual interviews. It would appear that this was the first priority and attention to the training of tutors would only occur if any funding remained. The coordinator described the situation:

"It can really fall down if you don't have the logistics behind it. There were 180 year 10 students. It's a lot for one form tutor to interview 30 people at

about 15 minutes per time. It's a lot of time. The cost for cover and the logistics of organising the appointments and making sure that truancy doesn't happen. ... Teachers have thought of it as a positive thing but the logistics have sometimes let them down. ... sometimes you can't get the cover on a certain day and they think, 'Well, what's the point of doing this.'"

Allocation of time for tutors to conduct student-tutor interviews was essential and a fundamental priority if the pilot program was to continue.

Other identified areas for support included guidance and support for pedagogical change. One INSET day was not sufficient to train teachers and to develop confidence to introduce dramatic change to their teaching and learning programs.

A further major neglected area was the training of students and teachers in processes of evaluation. The teachers had identified the students' lack of understanding of the processes yet some teachers did not appear confident in their implementation of student self-evaluation processes. The lack of time allocated for student self-evaluation purposes was also apparent. Quite often despite the rhetoric of valuing the self-evaluation process, it was not a reality practised in the classrooms observed. Gallimore and Tharp (1992) have indicated "[t]eachers, like all learners, have zones of proximal development of professional skills. And teachers, like all learners in schools, seldom receive the performance assistance that is required for them to develop" (p. 198).

Impact of An Observer

My presence as an observer of the technology teacher's class had an impact. She described it as "It's been more successful this time because ... the added incentive of having someone observing and, because of the topic of your research. It made me think that much more about what I was doing;" and "I thought I've got to think more about my input within the lesson because when you have an observer you are thinking more about the content of the lesson. It helps not only me but the students, as well, because I was thinking more in terms of other ways of giving them the information and getting them to do more in the way of evaluation."

Pilot Program

One of the inefficiencies of the pilot program was the assessment system which required teachers to grade student performance according to a five point scale for effort and achievement. A lot of inconsistency across the school was detected.

Improvements recommended for the action planning pilot program included greater support and planning.

The pressure to improve academic results in a short time frame increased tension for teachers to produce results: "It is a pilot program so it depends on how good the exam results are going to be. If it's going to raise their exam results and their levels of achievement then we're looking to make it."

LEARNING OUTCOMES

The following were perceived by some teachers, students and parents to be the main outcomes of student self-evaluation. First was increased involvement of the student in the learning process by reflection and evaluation of their learning experiences. A teacher noted that this was evident from some increased student responsibility for their RoA statements and some increased student recognition of the importance of these.

An example of a RoA statement follows:

"At the moment I believe that I've been coping reasonably well with the work set in lessons although I find difficulty in understanding some concepts of Luke's gospel and moral issues. I do think that I put enough effort into the work I do to achieve a higher grade."

In describing the self-evaluation process a student commented: "... we was writing about how we think that we've improved in our first year ... I wrote that I improved on reading skills, writing and spelling." A parent noted: "I think that student self-evaluation is good because it makes them think about the work that they are doing and what work they have to do. We never had to do that."

Some students said the use of "admin folders" caused them to reflect on their work, and to check it carefully. Reflection on past performance, and the teacher's advice, increased their awareness of how to improve. Some had a better understanding of how, and when, they worked well. Some also integrated the teacher's feedback. For example, "You learn about how you work, if you're working well, and if you work by yourself well, or in groups, or whether you can follow instructions." Students appeared to be thinking about how they learn: "I worked on my own today and I think I work better on my own because I can do more work."

Other students also saw self-evaluation as fulfilling an improvement function: "You don't make the same mistakes again, or try to avoid it, anyway. For example, I'm reading through some of my English work ... I didn't write properly because I used the word out of context ... I won't be doing that again ..." and "You learn how well you've been doing ... it gives you a lot of confidence. It's given me a lot of confidence. How much I've done, and achieved. And how well I could do if I set myself higher standards." This student explained that self-evaluation involved him judging "to see if it [the work] was as good as I was capable of doing ... or see if I could improve it."

Teachers thought that it was important for students to identify areas for improvement. Some students said that student self evaluation had helped them improve by learning from their mistakes, thinking about the implications for future learning and then by action planning. The year 11 students who experienced the action planning program suggested it helped them revise and prepare for exams. They also said it assisted them to clarify their aspirations for future education. Teachers and students felt parents were also more involved as a consequence of this approach.

Students appeared to be developing core skills for life long learning and problem solving. The English teacher commented: "I think that student self-evaluation is really important ... They learn to look at their own work, be honest about it, and identify where they need help, and identify how they want that help to be delivered to them, and how they can go forward and improve." Some students also believed they developed core skills from self-evaluation. For example, they stated how the experience had highlighted their need to manage time more efficiently, the year 11 students spoke about this in relation to exam technique and preparation.

Students said they were interested when self-evaluation helped them to focus on what to do to improve. They described self-evaluation as motivational:

"It's good because it does give you encouragement and that really helps you get on with your work. ... Knowing that you are doing well, and when the teacher says that (because they assess that as well). When they say that or they feel that you could get a better mark ... then you can try and do that, to improve."

From the students' perspective self-evaluation also impacted on student morale and self-esteem:

"Self-evaluation teaches you like your own self-worth, some people don't have much confidence in themselves, but when they come to action planning they

realise that they have achieved something ... It makes you feel ... that you've done well ... You may think that you haven't done so, but when it comes to your final year you think - Yeah, I have done quite a few things! Like I've got these certificates, I've been praised by these teachers, they've told me where I can improve and I've really tried there, and I've done well. It's good to see that your actions are paying off, you don't realise that you have done well. It's teaching you self-worth I think."

Teachers also perceived student self-evaluation as enhancing morale and interest. For the technology teacher this occurred in the year 8 class when she attempted to integrate self-evaluation into her teaching practice. She compared this group to previous groups who had not benefited from her revised approach. She judged the year 8 group of 1994 to be more confident, in control, and competent. For example, "They know what they are going to do and they are getting stuck into it. The ownership of the work is there, whereas the other group, relied on me and the technical assistant to get the work done. ... although we have had slightly less time with this group. They are a lot more capable and I think that it is because I have had to make time to evaluate the way I previously taught the module ... and because of student self-evaluation." She structured the course so that their final self-evaluation involved a judgement of whether their finished toy fulfilled the brief specifications.

This teacher's perceptions were validated by triangulated data from interviews of students and observations, of them at work in the technology centre, their final designs, and their self-evaluations. The students at the end of their planning stated that the process of developing three designs and then presenting their rationale for choice of a particular design resulted in an improved product due to their modifications, changes and developments to their ideas.

Some parents believed that their children gained confidence through self-evaluation: "They become more confident in themselves. I think that it is a good thing." Another parent noted that the focus on strengths "has been very helpful for [my daughter] because her self-esteem and confidence is quite low. So to focus on those things it actually boosts her up a lot more, than when you say to her that you didn't do good on that, because that will shut her out even more."

There was a notable improvement in the tutor-student relationship. The tutors were more aware of the individual student problems and weaknesses because of student self-evaluation. Students felt they could talk frankly to their tutors about their own

failings and weaknesses. Parents recognised the importance of the student-teacher relationship: "The teacher won't influence unless the student is willing to learn."

The RE teacher described how the student self-evaluation process provided her with important feedback to enhance her teaching but also to improve her relations with the students. "I was quite surprised and quite encouraged to pick up on some things that I'm getting right and to find out things that need improving. I like the fact that it is an encouraging process and that students say things that they want." The students indicated to her that: "I think that we are valued a lot in our work because if you make a contribution to the class Miss Abbott follows it on. Miss Abbott always takes time to read your work." Another view expressed: "No I don't (feel valued) because sometimes when I say something Ms Abbott just carries on and ... says, 'Right,' like I haven't said anything interesting."

From a teacher's perspective student self-evaluation of the teaching program resulted in "... outcomes for me ... seeing what I am doing right in the classroom and what from the students' point of view needs improving in terms of lesson content and learning styles. It's quite helpful for me to actually pick up on students' different needs. I was quite surprised at the lessons that the students enjoyed. I didn't think that they would enjoy it and others who I thought were enjoying it weren't particularly ...[it] helps me know where they are at." For example, one of her students offered: "I think that Ms Abbott is quick in helping people with there work because she looks around and she notices you and does not ignore you."

The SMAD project provided teachers with time to develop resources, to participate on the SMAD working party and to have increased responsibility for related decision-making. The teachers volunteered their involvement. The SMAD coordinator believed that the teachers' professionalism was recognised and the message that they received was that they were not being taken for granted but treated with the respect and the professionalism that they deserved. Payment to take after school classes was an acknowledgement of that professionalism. Those teachers on the working party thought it was good professional experience. The SMAD coordinator believed these teachers had benefited from exploring their initiative and development opportunities. The project raised important issues for some teachers and caused them to think differently about teaching and learning. The coordinator stated that 'whole school change had occurred in a dramatic way' with some people taking greater interest in new ideas such as flexible learning. The physical changes to the classroom and school learning environments had also had an impact on students as well as teachers. These latter outcomes, such as the improvements to the physical environment (notice

boards and carpets) and after school clubs were immediate and apparent. Important learning, and opportunities to demonstrate initiative, were also provided for students. The development of a school council was one such outcome. Some teachers felt that student attitudes had changed as a consequence of their involvement.

Student self-evaluation processes have been examined in three quite different contexts. A cross case analysis of the emergent themes, the supports for self-evaluation and the constraints, will now be considered.

CHAPTER SEVEN

SUPPORTS, CONSTRAINTS AND OUTCOMES

INTRODUCTION

In chapter two I argued the case for student self-evaluation as a valuable process in the development of the individual learner. In the subsequent case studies there were clear examples of good practice which provided evidence to support those arguments about the educational value of student self-evaluation and which demonstrated that both teachers and students appreciated the extra dimension which this approach brought to the process of teaching and learning.

In this chapter I have analysed the case study material to discover what organisational factors appear to support or constrain the development of student self-evaluation processes within a school or college. Changes in practice cannot be seen in isolation. A change in some crucial aspect of pedagogy such as student self-evaluation will impinge upon and be affected by other aspects of the teacher's practice. Change in a single classroom will be similarly influenced by the organisational setting and beyond that, change within the individual institution will be shaped by influences from beyond the school.

My argument is that the attempt to introduce student self-evaluation into classroom practice represents a very significant shift in the process of teaching and learning. It needs to be supported by parallel shifts in pedagogy, curriculum and the culture of the classroom. As the data has shown, meaningful self-evaluation is accompanied by a change in relationships within the classroom. Teachers become facilitators, collaborators or team leaders in the classroom. It therefore requires a shift in the prevailing ideas about what it is to learn and to teach: teachers relinquish their control over the process and students are encouraged to become independent learners.

It does not appear to matter where this process actually begins. In the case study material it is apparent that in some instances the moves to incorporate self-evaluation precipitated a change in roles and relationships and a change in values; while in another a desire to make teaching and learning more student-centred triggered a shift towards self-evaluation and changing classroom relationships. In some of the cases the smooth processes of reciprocal change between the various components of the classroom system were inhibited. This was largely due to the predominant external contextual conditions of the school and the wider educational setting.

It is possible to see the development of student self-evaluation as a strategy which requires parallel changes within the system. Success occurs when appropriate modifications take place across all the components of that system: change is inhibited when, at classroom, school or national level there exist conditions that cannot or will not allow those reciprocal responses to occur.

Educationalists (Hoyle 1982; 1986; MacDonald, 1991; Ball, 1987; 1994; Hargreaves, 1994) have emphasised the political nature of schools and the need to understand schools as organisations. MacDonald (op cit.) writes: "[s]chools are ... political constructions, constrained by economic doctrines, powerful interests, organised ideologies" (p. 11).

Viewing schools as organisations helps to illuminate the actual process of schooling (Hoyle, 1986). Hoyle states that: "[t]he secondary school is an institution, but changes are constantly occurring in particular secondary schools as a result of redefinitions of the situation by teachers and pupils, and of policy changes at the local and national levels" (p. 14). He also proffers the concept that schools as loosely coupled structures (particularly secondary schools) "invite micropolitical activity" (p. 171). That is, "those strategies by which individuals and groups in organisational contexts seek to use their resources of power and influence to further their interests" (1982, p. 88). Ball (1987) uses the term "the micro-politics of the school" (p. 18) and he sees schools to be "arenas of struggle; to be riven with actual or potential conflict between members; to be poorly co-ordinated; to be ideologically diverse" (p. 19). The need to understand the nature of schools as organisations and to develop an understanding of these conflicts is helpful in explaining why in this study constraints, such as discrepant approaches, emerged and inhibited the adoption of student self-evaluation processes.

Ball (ibid) refers to Wood (1983) to alert researchers to 'macro blindness'. The researcher's "[d]eep involvement in the scene can blind to external constraints and the researcher might find him [or her]self expressing things in their own terms when more powerful forces operating on the action lie elsewhere" (p. 23). Ball stresses that it is important to look outwards to the social environment and to view the micro-politics of change in this broader context because: "[a]t certain times the environment is more amenable to experimentation and divergence than at others ... " (p. 38). In relation to such micro-political analysis he concludes that a key question that must be raised: "... is the extent to which the internal dynamics of an organisation are independent of, conditioned by or determined by, outside forces" (ibid, p. 245).

Therefore the conditions that support or constrain student self-evaluation at the micro level of the classroom need to be understood at the macro level of education systems and policies. A discussion of these conditions follows.

CONDITIONS FOR STUDENT SELF-EVALUATION

Each case study is unique. Each has its own contexts (broad and specific), its own set of values, its own design for development and application of student self-evaluation. The various organisational factors which appeared to support or constrain the development of student self-evaluation processes within each case will now be discussed. The identification of some similarities has the potential to inform the current research on the development and implementation of sound reflective student practices.

It seems that certain conditions need to be in place if student self-evaluation is to take root and flourish. These supporting factors appear to include: pedagogical change; a shared value system between students and teachers; and an evaluation ethic embedded in the school as a whole.

Pedagogical Change

Pedagogical change was either a driving or resultant change force in the adoption of student self-evaluation processes. At Arboret and Forest, the main aim was the implementation of pedagogical change (more learner-centred approaches) which in some classrooms led to the adoption of student self-evaluation to promote increased student responsibility for learning. Independent learning, and improved student achievement and morale were values emphasised. At Grove, the implementation of student self-evaluation, as a teaching and learning practice, resulted in consequent changes to the values and structure of the classroom. In their efforts to provide a high quality vocational alternative to academic qualifications, the lecturers found themselves adopting a more learner-centred pedagogy and were also valuing increased student responsibility for their learning. The allocation of dedicated time for the purpose of student-teacher review (the link periods) was a structural change adopted.

Within the classroom context pedagogical change was variously the driving force behind the change or itself the product of change elsewhere. In each case pedagogical change involved a shift from a didactic, teacher-directed learning environment, with the emphasis on teacher presentation of a body of knowledge and student passivity in

the learning process, to 'teacher as coach' or teacher as facilitator of learning, where the emphasis was on active student engagement in the learning process.

The intended student learning outcomes included: students as independent learners and improved student achievement. This required better connection of learning outcomes with previous learning and current learning tasks, active problem solving, increased student control over the planning, organising and evaluating of the work. Students were accustomed to the teacher being in control of the planning, pacing, organising and evaluating the work and in all cases it was hard for teachers to make the shift to a learner-centred pedagogy because "it meant losing control." For these teachers there was tension in the adoption of the pedagogical shift needed to encourage students to take responsibility for their learning and to provide students with the opportunity to develop the skills required. Teachers had to arrange the learning environment so that students had the space and the time to try different approaches and to learn from these experiences, engage in collaborative learning and have independent access to resources. A more learner-centred approach meant that initially teachers assisted students as they assumed control of their learning. They then had to stand back to allow the students to take charge.

Changing one's teaching practice and integrating the principles of learner-centred pedagogy was not an easy process as this teacher from Arboret recognised:

"It's a lot harder to teach students to make choices, to negotiate, to communicate confidently with each other without beating each other down or arguing with them. It's a lot harder to teach those skills and to model those skills. None of us were trained that way and so it's about building a relationship."

The importance of providing teachers with relevant, development opportunities to facilitate the risk-taking associated with the shift in the current teaching practice was identified, but not necessarily forthcoming, in each case. At no point did teachers move dramatically from traditional teaching to a more learner-centred approach. It was implemented a task at a time and not all teachers (in each case) were implementing these practices in the same way or at the same rate.

Shared Value System

Discourse analysis of official documents from each case study site revealed that each shared the following underpinning sets of values: increased student responsibility for learning; improved student achievement; staff professional development (for learning what and/or how to change practice); collective problem solving and

acknowledgement of student rights. In two studies (Arboret and Grove) it was also apparent that the values of both collaborative organisational structure and integrated approaches to teaching and learning were actively sought.

In each study, teachers acknowledged the importance of valuing student self-evaluation as a skill to be developed and practised. For student self-evaluation to be valid, it has to be valued by the school, teachers and students and all must be committed to the process. Students, in particular need to be committed and accept self-evaluation as part of the teaching and learning process. However, this cannot happen if teachers do not value the process in the first instance, and if they do not explain to students what student self-evaluation is and why they are doing it.

If students are to take responsibility for evaluating their own work then the relationship between teacher and students becomes crucial. In the interviews with teachers and students the following qualities emerged as those that support the implementation of student self-evaluation processes: a valuing of student voices; a respect for honest opinions; trust; active student engagement in the learning process; and accurate student evaluation of their own successes and failings, areas of strength and weakness, and recognition of where and when to seek teacher help.

Relations of trust with the students stemmed from the teachers' modelling of the values and behaviours that they were demanding of their students and the establishment of a classroom culture where students experienced opportunities to develop these relations of trust and honesty with the teacher and their peers. As this teacher from Forest noted:

"It is important for kids to trust you. I think that it is really important for them to know that you respect their judgement and you trust their honesty. I encourage kids to be honest about their work and honest about their own capabilities and praise them for it."

Trust in students and their ability to make judgements about their work is a condition which supports the implementation of student self-evaluation processes. Trust here needs to extend beyond a trust in the student to include trust in the process (Hargreaves, 1994) of student self-evaluation by both student and teacher.

Teachers claimed they could identify those students who did not take the self-evaluation exercise seriously. Some of these students could not see the relevance to them, personally; rather they saw self-evaluation as a task to be completed for the teacher. For example, a teacher from Grove asserted that some students (who were more likely to achieve a merit or distinction grading) were working independently

and appeared to self-evaluate in a serious manner. They saw student self-evaluation as an authentic teaching and learning practice and had integrated it into their learning processes. The other students, according to this teacher, were working more slowly, completed less work and their aptitude for self-evaluation did not appear to be as developed. He commented:

"Jack is more sensitive to criticism and defensive about how well things are going: it's because he is not having as much success or, at least, not achieving success as quickly."

The perception that student self-evaluation is a process to be carried out for the teacher reflects what Rudduck (1991) identified as students being socialised into a particular view of teaching and learning which does not include the idea of students having a right to being informed. In my own research some students had been socialised into thinking that all work, including self-evaluation, is completed for the teacher. Clearly, they did not see the connection of student self-evaluation with their own learning. This insight is important when attempting to increase students' responsibility for their own learning through the use of self-evaluation. Teachers need to be aware not all students will have identified their own role in the learning process.

A necessary condition for the implementation of self-evaluation is therefore the opportunity for students to take responsibility for their own learning. Student engagement was evident in classroom contexts where decision-making, planning, consultation and negotiation took place between the teacher and students. Self-evaluation requires student involvement in the decision-making associated with pacing, assessment, readiness, action planning, and the setting of personal learning goals.

Students confirmed the importance of the classroom context when they referred to the numerous opportunities to demonstrate responsibility for their learning. They cited classes where they could choose how to carry out their research and work, where they researched authentic issues, read on their own and/or worked in groups. They appreciated the opportunities to make their own choices about their work and to evaluate it. They indicated also that working in groups was challenging, fostered choice and independence.

Evaluation Ethic

Establishing a shared understanding of the processes of student self-evaluation and practising it across the school requires the development of an evaluation ethic. The wider school context plays a role in the establishment of such an ethic. As intimated

earlier student self-evaluation requires adaptive change across the system. This includes the levels of the classroom, the school and beyond. In some cases, such as at Arboret, the conditions at the school and local levels cultivated the growth of student self-evaluation processes in the classroom.

In each case, students' views and needs were valued and sought. The practice of these democratic principles at the school or college level were mirrored in some classrooms where teachers implemented student self-evaluation processes. These teachers demonstrated a respect for the students' ability to think for, and about, themselves. Students were involved in school/college projects which aimed for greater student involvement and encouraged them to contribute their ideas and to participate in school/college decision-making. Students were given responsibility and realised that they had to work with teachers in a cooperative way, they felt part of the organisation with a greater voice in the decision-making. They felt that the school/college was doing something important for them and taking an increased interest in them. Both at Arboret and Forest the introduction of a school council was a critical incident that furthered recognition of students' contribution to the school.

Student involvement in evaluation at the school level enabled some to develop vital core skills. 'Giving students a voice' was considered important for students, for they had to reach consensus and make the final decisions on what it was they wanted. It was expected that with student involvement in the decision-making processes they would take responsibility for the decisions they made and also for the consequences of those decisions. This seemed empowering for students and helped to establish their voice as one to be consulted and taken seriously.

At Arboret it was the focus on intended student learning outcomes that motivated the school community to be "reflective on a whole school basis" and resulted in change efforts in classroom pedagogy and at the school structural, organisational and cultural levels. At Forest and Grove, the respective innovative programs resulted in monitoring and evaluation of practice and consequent change.

CONSTRAINTS ON STUDENT SELF-EVALUATION

Constraints on student self-evaluation became evident when changes, or attempts to change classroom teaching and learning practice took place. The inhibiting factors included the apparent lack of time, the perceived paucity of professional development and support for student self-evaluation and the change process, itself. Some of these constraints relate to conditions and policies that exist at school, local or national

levels. They inhibit the development of student self-evaluation by restraining the necessary parallel changes throughout the system.

In Britain where the majority of this research was conducted the 1988 Educational Reform Act according to Ball (1994), who has quoted Rabinow (1986), brought into play 'a new economy of power' which are procedures which allowed the effects of power to circulate in a continuous, uninterrupted, adapted, and 'individualised' manner throughout the entire social body. Ball (ibid) suggests this economy 'runs through' "... the four message systems of education: curriculum, assessment, pedagogy and organisation" (p. 1).

In Britain, schools have had to confront the following reforms: new national curriculum; changes in school governance, management and funding, in the roles of local authorities, in student testing and school inspection, in pedagogy and classroom organisation (like the press for whole-class teaching), and in teacher training and teachers' conditions of work and employment. Ball (1994) stresses:

"These changes are all facets of current Conservative government education policy - they are all externally imposed and virtually all have legal status. They are all happening at once. They all have dramatically short time scales for implementation. By general consensus, within the educational community they are all massively under-funded" (p. 11).

Ball (ibid) illustrates how these changes are bringing about profound shifts in the nature of teaching and the teacher's role, the relationships between schools and parents and the nature of schools as work organisations. He highlights how "Together these changes assert a massive and complex technology of control over teachers' work in all its aspects" and how "[t]hese changes are tied together in complex ways. They interrelate and ramify in certain respects ... but they also contradict and confuse in various ways" (p. 12). These changes have reduced teachers 'freedom to manoeuvre', and have caused teachers to stay within certain implicit boundaries of curriculum, pedagogy and evaluation (Ball, 1987).

Western Australian schools also experienced educational reforms such as the devolution of decision making and the requirement to demonstrate accountability. Arboret was involved in a National Project which focused specifically on the quality of teaching and learning and the teachers were encouraged to be creative in their teaching practice and push the regulatory framework beyond its existing boundaries. Constraints on student self-evaluation emerged in this context from this set of changes which was tied together in complex ways.

It is helpful to discuss the constraints for student self-evaluation in these wider contexts of educational reform.

Time

The constraint of time was apparent in all three cases. Changing teaching styles is a time-consuming process. It is also stressful for teachers to incorporate new teaching and learning strategies when there exist external forces and system pressure 'to cover' the set curriculum, and to improve academic results, in a given time frame. Teachers indicated that they wanted time to exchange ideas, to share and discuss similar problems and to find collaborative solutions. This is an example of what Apple (1983) has termed 'intensification'. That is, external pressures drive what teachers do and the expectation of how much they should do. Time and interaction are consequently under pressure.

The teachers felt stretched for time. In two of the cases they worked in teams which required attendance at meetings for the collaborative development of assignments and agreed approaches to teaching and learning. Where a new course was being implemented it meant teachers were learning at the same time as they were organising and delivering the program of work. In relation to this constraint of time Hargreaves (1994) quotes Campbell (1985) who concluded "teacher working conditions ... seem stuck on the anachronistic assumption that there is no need to provide time for curriculum development" (p. 97). Hargreaves (op cit.) concludes that such technical rational dimensions of time have limitations as "... additional time does not in itself guarantee educational change" (p. 98). He suggests that it may be more helpful to give more responsibility and flexibility to teachers in the management and allocation of their time ... and recognise that teacher development is ultimately incompatible with confining teacher to the role of merely *implementing* curriculum guidelines" (p. 114). He urges that the close link between teacher development and curriculum development be understood. Ironically as argued elsewhere (Ball, 1987, 1994, Rudduck, 1991) due to central political accountability demands teachers are experiencing a reduced professional role and an increased technical role.

Students too wanted more time. Some required more time than others not only to conduct the self-evaluation, but also to complete the work itself. Teachers found it difficult to find time to invest in relations with each student and their work. They found that inevitably there were some students who were neglected. These time-related constraints were associated with the curriculum structure and/or the timetable framework as well as external pressures.

Action planning as an outcome of the student self-evaluation process was neglected or not given enough time for proper implementation. In some cases, the follow-up did not eventuate despite teachers valuing this phase of the process. The consequence was that students perceived the process to be unimportant and not relevant to their learning and teaching experience. Implementation of these plans with appropriate follow-up was needed. Their neglect constituted another major constraint.

Pressures of external examinations or demonstrations of improved student academic performance impacted on the time allocated for self-evaluation purposes. Time was either reduced or not allocated. Quite often, despite the rhetoric of valuing the self-evaluation process, it was not a reality practised in the classrooms observed. For example, teachers in trying to give attention to new teaching strategies, new curriculum or new assessment systems, delayed student self-evaluation processes or did not give them the time to be implemented effectively. This is an example of what Ball (1987) has termed 'omissive action' (p. 268) in response to the considerable demands that are being made of teachers. A major tension for teachers in each case was getting the time to incorporate the information from the student self-evaluations into revised programs.

Discrepant Approaches

Another major constraint which emerged was the lack of teacher understanding and confidence in the implementation of student self-evaluation. MacDonald (1991) has argued that teacher development is a precondition of curriculum development and that "teachers must play a generative role in the development of better curricula" (p. 3). If student self-evaluation is to be a practice to be implemented successfully then not only must it be valued, it must also be understood and given status throughout the school. In all case studies some teachers did not fully understand the process and a diversity of practice was evident. Inconsistent attempts at the implementation of learner-centred pedagogy, and a lack of focus and support, compounded the situation.

Ball (1987) reminds us that a lot of these differences in practice often emerge from differences in ideological foundations. This is particularly evident in secondary schools where, "[i]n terms of their classroom practice their classification of pupils and their relationship with pupils, it is possible to find enormous differences between subject departments within the same school and even between teachers in the same department" (p. 13). Ball continues by suggesting that once the loose coupled character of schools is acknowledged and "their ideological diversity recognised then the ever-present potential for conflict must also be accepted" (p. 15). Given these

features of schools it is not surprising to find different approaches to student self-evaluation emerging and varying degrees of adoption by individual teachers.

Resources to provide adequate professional development and training for teachers involved in the various innovative programs appeared to be lacking. The professional development was insufficient to train teachers and to develop their confidence to introduce dramatic change to their teaching and learning programs. Guidance and support for such major pedagogical change was needed. In all cases, a key area of neglect (given its importance in the self-evaluation process) was how to interview students, how to question, how to give feedback, how to answer questions, address problems and handle issues of confidentiality

Teacher professional development seems necessary to build teacher confidence in evaluative processes and to implement self-evaluation into teaching practice. This understanding would enable teachers to explain why self-evaluation was being conducted and to teach students how to integrate these processes into their learning styles. A teacher from Forest noted the lack of consistency of approach which seemed to emerge from a lack of understanding and familiarity with the self-evaluation process:

"I don't think there has been enough standardisation in what kids are asked to reflect upon. I think that it has to be very clear. The kids have to know why they are doing it, and what they are supposed to be commenting on."

It was apparent in each case study that some teachers did not discuss the processes of evaluation with their students.

Evaluation was interpreted in a rather limited way by some teachers when checklists were produced for students to complete by ticking boxes. Student self-evaluation is a process intended to demonstrate that students are capable of reflecting on their own work and judging its worth. This proved difficult for students when there was no training in evaluation processes or no discussion of how to identify criteria for evaluation. MacDonald and Walker (1976) refer to such practice as 'curriculum negotiation' where the use of the rhetoric may change considerably within an institution however minimal impact appears to be made on practice.

The discovery of discrepant approaches also highlights what Rizvi and Kemmis (1987) have called 'interpretations of interpretations' (in Ball, 1994) where attempts to represent policy are distorted as they build up over time and spread confusion. Ball (1994) goes on to illustrate this dilemma by referring to the work of Gipps and Brown (1992) whose ongoing study of assessment at Key Stage 1 found that a significant

number of teachers in the schools of the study misunderstood the premises and methods of School Attainment Tasks and teacher assessment and organised their classroom practice based on these misunderstandings.

Some teachers in my own study did not think that students learnt much from self-evaluation because the students were not skilled in the processes. Students need to know what self-evaluation involves and how self-evaluation connects to learning. Students' lack of understanding of the processes constituted a major constraint. For example, in one case, students referred to self-evaluation as an exercise carried out at the end of term. It was fulfilling a formal, summative function and students had a range of audiences to consider. It was not intended to be solely for self-improvement purposes of a formative nature. Due to these tensions self-evaluation was reduced to a banal and superficial understanding.

The Change Process

Teachers in the three case studies had to cope with pedagogical change together with curriculum and evaluation changes. In implementing these changes teachers found that they were learning on demand. They found changing their teaching styles difficult, while students were reluctant to take charge of their own learning. It was a challenge for teachers to share their power with the students, to give them the freedom to choose topics, ways of researching, learning, methods of demonstrating their learning and to hand over more responsibility to them. It would be unrealistic not to accept that while some teachers may have lacked the practical skills to implement the process of student self-evaluation, given the external demands of teachers, some may have lacked the "will to struggle with new meanings, new methods of working or new forms of social relationships" (Ball, 1987, p. 39).

The implementation of student self-evaluation caused teachers to not only change their teaching practice but also the classroom culture so that students were no longer dependent on them for judgements about the quality of their performance. This required sharing their rationales for the change in teaching practice and the shift in evaluation processes. However, this was not made explicit in all cases. The tension for students came with having to take control of their learning. Teachers stressed that it was hard for some students "... because they want *you* to take control." Students' expectations also had to change. Teachers had to make standards and the criteria that were to be used in the evaluation process explicit and then had to provide opportunities for students to learn the skills of evaluation and critique.

The learner-centred approach challenged students. Teachers found the shift for

students along the continuum (so that they were assuming greater responsibility for their learning) proved to be difficult for them. Some expected to be teacher-led and preferred the more directed learning approach. For example, a teacher commented:

"...that often students wish to be teacher led, rather than control their own destinies. If one operates to build self-reliance, one is more confident about setting the students up to organise themselves. In the end it makes the whole process of learning 'easier' for the students."

When teaching in such a context, where independent learning is a formal learning outcome, a major dilemma for teachers is deciding exactly how much guidance and support to give their students. A teacher described this further:

"I think that the tension also comes on the staff side (when first having to deliver a curriculum to the GNVQ model), if you are unprepared for the type of approach. You need to be able to step back from the students a little, giving them the option to make mistakes as much as anything else."

A 'feeling of no control' emerged from this change in teaching practice and was accompanied with anxiety and stress. This was true particularly for those teachers who had always taught in a particular way to achieve a known outcome. The teachers who were changing indicated that they had to have faith in the process and needed to find a comfort with such change.

In encouraging students to take greater responsibility for their learning, and for self-evaluation, teachers need to be aware of student reticence. Students are not always confident to ask for help, particularly in contexts where independent learning is valued. When interviewed some students expressed their reluctance to ask teachers for assistance. Some students were stressed by the changes and feared that their grades might fall as a consequence of the new approaches or pilot programs adopted. There was apparent student frustration with different teaching styles and strategies, for not all teachers implemented student self-evaluation or learner-centred pedagogy, in the same way or at the same rate. Some students indicated that they found the increased responsibility for their learning stressful and had difficulty adapting to the change in teaching style.

Harnessing parental or community support in a context where staff are implementing changes to their teaching at varying degrees and varying rates formed another constraint. Parents and community members confirmed their lack of certainty with the changes and indicated their lack of understanding of the rationales for change.

The dynamics of group work formed another set of constraints. Staff working in teams needed to develop new skills and understandings about groups. The changes, themselves, created more work and more effort which needed to be confronted. Teachers were faced with many pressures in the process of changing teaching styles, open conflict and stress were experienced by all. This was apparent, for example, during the collaborative development of integrated assignments.

LEARNING OUTCOMES

Given the necessary supports for student self-evaluation processes, and the constraints that inhibit their development, I now want to discuss the perceived beneficial learning outcomes.

In each case study the intended learning outcomes for students, as identified by an analysis of the documentation collected from each site, included: student independence in their learning, responsibility for decision making related to assignments, proactivity, and creativity in taking charge of their own work. Student self-evaluation appeared to support the achievement of these objectives. Other developments which appeared to emanate from the student self-evaluation process included increased student motivation, engagement in their learning; critique and consequent improvement of the work.

The processes of self-evaluation were seen as educative by students, teachers and parents. Teachers noted that "the students believe that they have never worked harder: the challenge." Students too felt they were taking greater responsibility for their learning and acknowledged it was not easy. For example:

"[this approach] makes you think more about: planning what you're doing first, and actually how to look for the information, and what you have to look for. ...before you just did it! Finished the assignment and handed it in. It was just the assignment that counted. You didn't really look at what you needed, to get the grades. ... it's a lot easier to just hand the assignment over and say: 'what do I get?'" (Student Interview, 1994).

Students, parents and teachers indicated that student self-evaluation was motivational, enhanced morale and interest. From the students' view self-evaluation impacted on self-esteem. For example:

"Self-evaluation teaches you like your own self-worth, some people don't have much confidence in themselves, but when they come to action planning [Record of Achievement] they realise that they have achieved something ... It

makes you feel ... that you've done well ...It's teaching you self-worth I think" (Student Interview, 1994).

From the teachers' point of view self-evaluation was one way of increasing self-esteem and building confidence to succeed in students because it encouraged them to realise what was achieved as well as what was not. In the two cases where students were involved in the identification of criteria for evaluation teachers indicated that they were able to monitor the extent to which students successfully adopted and implemented the practice of self-evaluation.

According to some of the teachers interviewed the development of skills in students to be self-critical and self-reliant was promoted by self-evaluation processes. Students seemed to be integrating the criteria for successful performance through the use of the more formal types of self-evaluation. When they reflected on their mistakes students found cause to replan and/or rethink their use of time and learning strategies. It was apparent that student self-evaluation provoked some metacognitive thinking. This supports Gipps' (1994) claim that "[a]ccess to metacognitive processes for pupils can come from a process of guided or negotiated self-assessment, in which the pupil gains awareness of his/her own learning strategies and efficiency" (p. 28). When the students were required to identify areas for improvement, and action to be taken, they were not just thinking about what they had learnt but how they were learning. Some students were also thinking about the efficiency of their learning strategies. In thinking about how they learn, students had a better understanding of how, and when, they worked well.

Students appeared to be developing core skills for life long learning: in using self-evaluation they discovered their need to manage time more efficiently and effectively, to develop skills in research, information seeking and handling, and action planning. In some cases students set themselves personal goals, made action plans to achieve them and then evaluated their progress.

Consideration of their own performance and the teacher's advice, increased student awareness of what to focus on, and what to do, to improve on past performance. Some students were, in this way, integrating teachers' feedback. As a consequence of conducting self-evaluation some gained more confidence to seek assistance when needed, greater responsibility for discovering resources and for independent use of facilities. Teachers noted an increase in student competence and control over their own learning. Students too identified increased confidence with themselves and their

learning. For example:

"... it gives you a lot of confidence. It's given me a lot of confidence. How much I've done, and achieved, and how well I could do if I set myself higher standards" (Student Interview, 1994).

Involvement of students in identifying their own areas for improvement was an important outcome from the teachers' point of view. Student strengths and weaknesses were highlighted as a consequence of the process and students were then encouraged to think about action to be taken:

"I think that we learn where we've gone wrong and how to improve ourselves to do better and the way to go about the next assignment. You learn from your mistakes" (Student Interview, 1994).

Improved student-teacher relations was a further outcome discovered. For example, the tutors for Personal and Social Education at Forest and the teacher-mentors for students at Grove were more aware of individual student problems and weaknesses because of student self-evaluation. Some students felt they could talk frankly to their teachers, tutors or mentors about their own failings and weaknesses.

Despite the constraints mentioned, where student self-evaluation was implemented and supported by some semblance of the favourable conditions discussed, it was possible to see an empowering impact on students. These outcomes and potentialities of the student self-evaluation process include students more actively engaged in their learning, in some cases developing skills in self-critique and in metacognition. Given the supportive conditions it is also possible for students to develop increased competence, motivation, confidence and control over their learning.

However, it was extremely difficult for the potential of student self-evaluation to be realised as it was being implemented in the majority of cases in contexts that were antithetical. As has been identified elsewhere (Ball, 1987. 1994; Bowe & Ball with Gold, 1992; MacDonald, 1991) the nineties have witnessed increased demands for greater school and teacher accountability. MacDonald has described this situation as follows:

"an economic model of schooling and its evaluative correlate the performance indicator, is now firmly entrenched. Schools have annual targets, managed workforces, and an ideal of 'effectiveness' to aspire to. There is no place for curriculum development or variation" (p. 9).

Ball (1994) suggests that "... for the neo-liberal wing of the New Right test results

also provide the information system which they believe will drive the market in education" (p. 41). He quotes Flew (1991) who suggests that in this political climate "Pupil profiles' constructed by the pupils' own teachers are not to be relied on say in so far as they can be and are cross-checked against the findings of independently assessed public examinations" and Ball concludes "[a]ssessments are seen to have little or no pedagogic value; rather they must serve as performance indicators of teacher effectivity" (p. 41).

In the light of this broader context and given the investigation of student self-evaluation processes at the micro-level of the classroom the final chapter of this thesis will explore the contributions and findings of this research.

CHAPTER EIGHT

CONTRIBUTIONS AND CONCLUSIONS

CONTRIBUTIONS

In this final chapter I conclude by looking at student self-evaluation from two quite different vantage points. The first view focuses down on self-evaluation processes at the micro-level of the classroom while the second focuses out and presents student self-evaluation and its potential from a broader perspective. The first set of contributions deals with the practical considerations to realise the potential of student self-evaluation as an authentic pedagogical process. The second set illustrates the relevance and potential of self-evaluation processes for learning and for accountability of that learning. In conclusion I emphasise the argument that for student self-evaluation to develop as a strategy, adaptive change within the system is required.

The impetus for this research derived from an understanding and experience of school self-evaluation processes which had grown out of past attempts to reform schools (Simons, 1990). It also stemmed from an evaluation of a training program in school self-evaluation for the establishment of a professional local accountability system (Klenowski, 1992).

PROFESSIONAL LOCAL ACCOUNTABILITY SYSTEMS	STUDENT SELF-EVALUATION
• increased responsibility for control of self-evaluation	• increased student responsibility for self-evaluation and learning
• negotiation of targets	• negotiation of learning targets
• intrinsic motivation	• intrinsic motivation
• the implementation of internal accountability strategies	• implementation of self-reflective and self-corrective processes
• use of peer appraisal	• evaluation of peer's and own work
• adoption of a collegial approach	• interdependent relations
• implementation of locally designed evaluation methods.	• use of class or school based formal and informal self-evaluation methods.

FIGURE 8. *The purposes of professional, local accountability systems and student self-evaluation compared.*

It was suggested in chapter two that there are parallels between the purposes of student self-evaluation and those which inform professional local accountability systems (See Figure 8). It is also apparent from this research that the factors which support the acquisition of self-evaluation skills for practitioners at the local professional level (Klenowski, 1992) are very similar to those required for the development of self-evaluation skills for students. This corresponds with Sarason's (1991) argument that the factors which are conducive for the growth and development of a school's staff are also crucial to attaining the same consequences for students in the classroom.

The similarities which exist between how practitioners at the local professional level, and students within their classrooms, acquire self-evaluation skills are helpful in understanding how the school might seek to develop these processes. As discussed in chapter one, a collaborative culture is a key factor. Interdependent relations are required. Such relations develop through trust and respect for one another, across levels. Key values that underpin such a culture include; a supportive ethos, a resourceful learning environment, and team work. Rudduck (1991) urges teachers to try to include students in school and classroom policies for change for she sees students as 'guardians of the existing culture' and 'a powerful conservative force.' She suggests that "unless we give attention to the problems that pupils face, we may be overlooking a significant feature of the innovation process" (p. 57). Fullan (1991) would agree "... we hardly know anything about what students think of educational change because no one ever asks them" (p.182). Wallace and Wildy (1995) conclude that teachers need to acknowledge that "... students are connoisseurs of other things that [teachers] don't notice" (p. 11).

Some students in this research seemed to be empowered when the school or college chose to share important organisational decision-making with them and involved them in meaningful forums with staff. Students also appeared empowered in their learning through the adoption of self-evaluation processes, which required a shift in the traditional student-teacher relationship. To create a collaborative culture, where values are shared, schools may need to give students real leadership opportunities in school-specific situations that matter and act on student input. This form of collaborative process aligns with Hargreaves (1994) argument that:

"[p]rocesses to be trusted ... are ones that maximize the organization's collective expertise and improve its problem-solving capacities. These include improved communication, shared decision-making, creation of opportunities for collegial learning, networking with outside environments, commitment to continuous enquiry ... Trust in people remains important, but trust in expertise and processes supersedes it" (p. 254).

This type of collaboration is conducive to innovation and differs to contrived collegiality or collaboration that results from the exercise of organizational power in a micropolitical sense (Hargreaves, 1994).

Fullan (1993) suggests that for successful change to occur there needs to be a move beyond "bounded collaboration." That is, a move beyond the comfort zone. In the development and implementation of student self-evaluation processes a culture of non-threatening critique is also fundamental and is established partly through attention to supportive and affirming norms. Expectations also need to be clarified at the outset. They include: the need for critique as an essential component of the learning process; the analysis of criteria (given, self-identified or collectively identified) by those at the local level; a learning environment which is constructive, supportive and participative; and feedback which deepens understanding through its impact on learning. Towler and Broadfoot (1992) have also indicated that "mutual trust and respect are obviously crucial to all aspects of recording achievement" (p. 150).

The principles of reflection and evaluation need to be embraced by both teacher and student. They need to talk about inquiring, questioning, reflecting and criticising. Students have limited opportunities to engage in conversations of quality with their teachers about their learning: preferred learning styles; learning strategies and the impact of particular teaching approaches. Some of this can be realised through the interactive learning dialogue which takes place between student and teacher during the self-evaluation process. This research confirms that providing opportunities for these dialogues to occur is both positive and worthwhile.

Focusing Down: Practical Considerations

The student self-evaluation process needs to be simple and flexible (McMahon et al, 1984) so teachers and students understand what they have to do and how this might be adapted to local circumstances. The aim is to integrate evaluation processes into lessons so they are part of the learning experience for the student. It is not intended that self-evaluation processes be seen as yet further tasks to be added to the teacher's already busy workload. Likewise it is not envisaged that self-evaluation should be carried out by students in every lesson or for every assignment. However, it is important to remember that the translation of student self-evaluation processes into practice is conceptually and practically more difficult and complex than first thought. For example, it is important not to assume that student self-evaluation processes have the same impact on students who come from diverse backgrounds, have different learning styles, abilities, characteristics, interests and attitudes or have had different evaluative experiences.

Research findings (Liet and Dweck, 1983; Broadfoot et al., 1988; DEET, 1993; DEET, 1995) indicate that girls underestimate their achievements when evaluating their own performance. The implications of this are a necessary consideration in the application of self-evaluation processes in classroom contexts. Recent research in Australia has discovered that:

"Boys are more than twice as likely as girls to assess themselves as performing in the top levels of mathematics. There are no fundamental reasons why girls cannot perform as well as boys at any level of maths. But the data shows that the most talented girls typically enrol less often in the most demanding subjects. They are barred not by their capacity but by their perceptions" (DEET, 1995, p. 3).

Broadfoot et al. (1988) found: "... girls were regularly underestimating their achievements when assessing themselves, less so boys, who were more inclined to over assess their achievements" (p. 125). This perception and underestimation of their achievements by girls is likely to extend to the goals or targets that they set themselves when they plan future action after considering their self-evaluations. Broadfoot et al. also found: "... for girls in some cultural groups it is seen as a negative attribute to talk about one's strengths and achievements" (p. 125).

Gender, ethnic origin, ability and past experience are important considerations for the implementation of student self-evaluation processes into classroom contexts. The implications of these findings are that the bias that may be generated by student self-evaluation has to be addressed in teaching and learning strategies and must be taken up in teacher education and development programs.

The use of one-to-one dialogue in the self-evaluation process is worthy of further attention. In the case studies, the student-teacher interactive dialogue was identified as a key dimension. The subject of this interchange is the student's self-evaluation. This type of evaluation is dynamic and interactive and several practical issues need to be addressed. For example, a female student interviewed for this research commented:

"I feel uncomfortable talking about my mark with (she pauses) because she might tell me that when I think that I should get an A she might say I just deserve a pass for that" (Student Interview, 1994).

This student's comment connects with the earlier discussion of gender related concerns; however apart from this, teachers as well as students need to be prepared and comfortable with this dimension of the process. Student reticence is an important factor to be acknowledged. Some students felt uncomfortable and unfamiliar with the self-evaluation process and underestimated their achievements because of cultural or natural reserve.

During the discussion of the student's self-evaluation, the focus was on the student's achievements, as well as the mutual identification of areas for improvement. The nature of the feedback provided to the student and the way in which the teacher conducts the interview is vital. Issues of sensitivity and confidentiality during the interview emerged.

This research, together with others (Broadfoot et al., 1988; DEET, 1993; James, 1995), has identified the need for teachers to develop proficiency in evaluation methods. They also need to understand the gender equity issues related to evaluation. Broadfoot et al. (ibid) found that teachers were unfamiliar with the one-to-one situation with students and some experienced difficulty in trying to get students to talk. My own research has also identified the need for teachers to be skilled in interview technique. This is because of the crucial nature of the interactive dialogue between student and teacher.

The case studies in this research demonstrated various strategies for providing the necessary time for these interviews. The integration of student self-evaluation as an authentic pedagogic practice and the realisation that the interviews were an important component of the learning process was a fundamental premise for the decision to create time for this purpose. At Grove FE College, link periods were structured into the teaching and learning week to provide mentors with dedicated time to conduct the mentor-mentee interview. At both Arboret and Forest high schools, teachers restructured and changed their teaching approaches so that there was a combination of whole-class teaching, group work and independent learning. When students were engaged in group or independent learning, teachers were free to integrate one-to-one discussions with other normal classroom duties. In all cases the aim to develop independent student learning prompted teachers to 'create' time for the interactive dialogue to occur. Further strategies observed at Arboret were the use of team teaching, the reflective journal and the use of peer review. When students were involved in evaluating one another's work or when one of the team teachers was assuming a major role in the teaching and learning program, time was made available for student-teacher interviews.

Students also need to develop skills in critique and reflection to fulfil formative purposes. An important aspect in the development of skills for critique and reflection is the acquisition of appropriate language. Broadfoot et al. (1988) have identified the importance for students to be given the language "... to describe what they know, understand and can do" (p. 121). In this research students had to understand the language together with the concept of criteria for evaluation. In all cases where the teachers took the time to discuss, explain, and teach students about the use of criteria for evaluation, students responded positively. At Arboret, where the teachers involved the students in the process of criteria identification for the evaluation of assignment work, the impact on

students was more profound. This finding resonates with those of others (Sarason, 1991; Stiggins, 1991; Rudduck, 1991). In addition Linn, Baker & Dunbar (1991) suggest among the criteria should be included "an analysis of the cognitive complexity of the tasks and the nature of the responses they engender" (p. 19). By providing students with the concepts, language and criteria for evaluation, teachers were making explicit many aspects of teaching and learning which would otherwise remain implicit.

The provision of language for students to evaluate their own work assumes that teachers themselves have acquired this language and associated concepts. In all cases some teachers struggled to express confidently their understandings of evaluation and associated criteria. As reported elsewhere (Broadfoot et al., 1988):

"... until teachers have reached a degree of clarity and confidence in their ability to articulate students' achievement they are not in a very strong position to help students in their own struggle to reflect on and define their own progress and learning. This is because they are not in a prepared position to be able to pass on language that a student can use within their own thought processes. What use is it to say to oneself that, 'I am a B- or D+' or 'That piece of work was 7/10'?" (p. 121).

For the potential of student self-evaluation to be realised significant development issues require attention. The first which is highlighted above is the need for teachers to have the skills and understandings of evaluation. There are also certain procedures and management issues to be addressed.

Evaluation Skills

This research suggests that teachers and students need to develop and be confident in evaluation skills. They need to be able to identify criteria for evaluation purposes, identify and collect evidence to inform evaluative judgements, be familiar, or develop for themselves methods of self-evaluation (informal and formal), implement procedures by which to collect, analyse and share data for evaluation and the communication of results.

Students also seem to need to be taught about self-evaluation so that they understand the how and why of the process. They need to be helped to acquire the skills of self-evaluation, engage in quality discussions, and receive appropriate feedback which impacts on their learning. Opportunities to reflect on their strengths and weaknesses in relation to specific work, and time to develop action plans to improve future performance, appear to be required.

Understandings

The cross case analysis has highlighted the need for both teachers and students to understand the formative purposes of self-evaluation, the role of feedback and the principles for identifying criteria. In addition this research has emphasised the need for teachers to understand the dynamic inter-relationship of curriculum, pedagogy and evaluation. Wasley (1994) in her recent research of teachers changing classroom practice concluded that the insights which changed their teaching lives profoundly were: "First, they discovered that it was no longer feasible for them to address curriculum, pedagogy, and assessment as if they were three separate aspects of teaching. Secondly, they determined that the interconnection of the three propelled serious changes in each aspect" (p. 195).

Similarly, Gipps (1994) has argued: "[w]e must develop and propagate a wider understanding of the effect of assessment on teaching and learning for assessment does not stand outside teaching and learning but stands in dynamic interaction with it. We need also to foster a system which supports multiple methods of assessment while at the same time making sure that each one is used appropriately" (p. 15).

Broadfoot et al. (1988) concluded in their evaluation of the pilot schemes of the Records of Achievement that: "Clearly, as long as Records of Achievement related assessment procedures and other assessment procedures (especially for GCSE) are perceived as distinct assessment experiences rather than parts of an integrated whole, they will place an unreasonable burden on teachers" (p. 66-67).

Ball (1994) in discussing the imposition of a national curriculum and national testing, and direct and indirect interventions into pedagogical decision making, suggests that these "three basic message systems of schooling are subject to change, and changes in one system interrelate with and affect the others" (p. 49). He sees a reduction of teacher professionalism with the increase in the technical elements of teachers' work. For example, "Significant parts of teachers' practice are now codified in terms of Attainment Targets and Programmes of Study, and measured in terms of Standard Attainment Tasks. The spaces for professional autonomy and judgement are (further) reduced. A standardization and normalization of classroom practice is being attempted" (p. 50). This perspective is important in clarifying why the practice of student self-evaluation was difficult in the British context.

This research demonstrates that student self-evaluation is an authentic pedagogic practice and the implications for teachers are that they need to understand the introduction of self-

evaluation processes will act as a catalyst to further classroom change. The roles and relationships of teacher and student, the values and culture of the classroom and the pedagogy will all be affected. As intimated above teachers should view this change process as interconnected and not as an added classroom task to be carried out.

Procedures

Where student self-evaluation was most successful, teachers discussed the criteria for evaluation with students prior to the evaluation process and/or shared the identification of criteria for evaluation purposes with them. Criteria which students identified as important were incorporated into the evaluation schedule (Arboret) or alternatively students were expected to identify criteria for themselves as in the case of Grove. The importance of this finding is echoed in Rudduck's (1991) discussion of a researcher's attempt to provide students with an insight into the assessment process. It was discovered that the broader context in which teachers find themselves may prevent such discussion from occurring. For example,

"... pupils and teacher may spend time explicitly discussing criteria, but pressure to cover the syllabus often prevents this kind of exploration. The criteria that inform the teacher's overall judgement of a piece of submitted work are not usually made explicit to the pupil except in relation to standards of technical competence - ... response to the quality or logic of the pupil's thinking are less easy to communicate and tend therefore to remain implicit" (p. 84).

In my own research once the criteria for evaluation were made explicit, students were given the opportunity to evaluate their own or their peers' work using these. After conducting the evaluations it was important to organise time for teacher and students (or students and their peers) to discuss the evaluation itself, the experience and process. While this might appear to be a time-consuming process and one which could even work against the implementation of student self-evaluation, it was critical. For it was during this stage that students critiqued their own or their peers' work. The interactive dialogue between student and teacher about the outcomes and analysis of the student's self-evaluation constituted important feedback for them. It was not simply the informational content that was important but rather its effect or impact on the learning process. Students through this process were integrating notions of expected, as well as, achieved standards.

An integral aspect of the evaluation procedure is the action planning phase that follows the evaluation. Time for action planning appears crucial. Students need to understand that after evaluating their work it is necessary to identify the implications for their action. This is how self-evaluation can be integrated into the learning process and impact on

student learning.

Students need to be actively engaged in learning and the evaluation of that learning. However, the format for the self-evaluation should offer enough variation and flexibility of design to sustain student interest and motivation. Student boredom with self-evaluation processes seems to occur when students are required to complete sheets of similar format, respond repeatedly to similar questions or have insufficient understanding of the purposes of self-evaluation.

Management

A whole school approach will be needed to prepare and plan for the management and implementation of student self-evaluation processes. This will require the commitment and understanding of the senior management team. Management issues to be addressed include first the development of a policy and strategy for student self-evaluation development. A synthesis of the research and from my own experiences I am aware that this will involve:

- the development of a school policy;
- an operational plan showing action to be taken by when and by whom;
- situational analysis of existing evaluation strategies and staff expertise;
- the development of student self-evaluation skills.

Support for student self-evaluation through the deployment of staff and resources will also need to occur. This will require:

- the designation of responsibility to a group for the overall responsibility of student self-evaluation development;
- identification and use of existing staff expertise;
- awareness raising and staff development on student self-evaluation issues;
- development of student self-evaluation skills within and across curriculum areas;
- time allocated for staff meetings;
- the provision of review and tutorial times;
- the understanding by all that review sessions are part of a single coherent system;
- the evaluation of the implementation and achievement of student self-evaluation.

Focusing Out: A Broader Perspective on Student Self-Evaluation

I now turn to the broader issues relating to the importance of context for the development of student self-evaluation. Increasingly, there are demands from politicians, employers and others (Entwistle, 1987; Confederation of British Industry, 1990; Wolf et al., 1991; Entwistle, 1993; Reich, 1993; National Commission On Education, 1993;) for young people to have skills which are encouraged by student self-evaluation. For example:

"We believe that, by the age of about 14, pupils should be equipped to work independently in a flexible learning environment" (National Commission On Education, 1993, p. 90) and "Good teaching will foster in students a spirit of inquiry about the world around them. It will encourage them to think for themselves, to be critical and to be self-critical (ibid, p. 39)."

This research, however, indicates that the current educational conditions are antipathetic to the development of these skills.

Ball (1994) in his argument that the discourse of management pervades current educational reform, suggests a new culture of schooling has emerged. It is a culture "of commodification and output indicators which articulates with the culture of choice and relative advantage into which parents are being drawn" (p. 66). He continues "in the new educational market place 'bureaucratic' constraints upon decision making in the school are replaced by the constraints of consumer preference and the demands of government-imposed measures and indicators of performance" (p. 86). This is not a context conducive to innovation to the learning environment.

Centralised testing and centralised curriculum development are further conditions which militate against the development of student self-evaluation. For example, Broadfoot (1988) has argued that the "institution of national assessments at ages 7, 11, 14, and 16 may ... encourage consumers to regard these results as the hallmark of pupil and school achievement, teachers may find it hard to defend the distinctive philosophy and practices of Records of Achievement even though the latter have themselves been shown to have considerable potential for raising standards" (p. 296).

Paradoxically, the nineties have witnessed the emergence of a paradigm shift in the theory for evaluating student achievement and performance. Broadfoot (1993) has indicated that in this new paradigm "... it is learning itself, rather than simply the measurement of that learning, which is its central purpose" (p. 3). This shift has given birth to a range of methods for evaluating student achievement which includes portfolios and authentic assessment which may incorporate: exhibitions of learning; oral; practical; performances; individual or group presentations; essay examinations; research projects and scientific experiments.

Student self-evaluation is a cognitive strategy which also provides an avenue for this paradigmatic shift. This is because the psychological processes of metacognition map onto student self-evaluation. As Shepard (1992) has indicated "[i]ntelligent thought involves 'metacognition' or self-monitoring of learning and thinking processes" (p. 314). Ivic (1992) has argued that "it is essential that special attention is paid to metacognitive

abilities in modern theorizing on the assessment of educational processes and outcomes" (p. 5). When students are engaged in evaluating their own work, they are thinking about what they have learnt and how they learn. They are consequently more aware of their thinking and learning processes which encourages a deep, as opposed to a surface, approach to learning (Entwistle, 1993). These are processes which need to be fostered if we wish students to succeed (National Commission On Education, 1993).

Students when they evaluate their own and peers' work are judging and interpreting. Reich (1991) advocates the development of these skills. He suggests that students need to "to get behind the data - to ask why certain facts have been selected, why they are assumed to be important, how they were deduced, and how they might be contradicted" (p. 230). Reich advocates an education for the symbolic analytic services which incorporate problem-solving, problem identifying and strategic brokering. What is important in this domain is system-thinking. That is, "[r]ather than teach students how to solve a problem that is presented to them, they are taught to examine why the problem arises and how it is connected to other problems" (p. 231). He concludes:

"... in America's best classrooms ... Students learn to articulate, clarify, and then restate for one another how they identify and find answers. They learn how to seek and accept criticism from peers, solicit help and give credit to others. They also learn to negotiate - to explain their own needs, to discern what others need and view things from others' perspectives, and to discover mutually beneficial resolutions" (p. 233).

One of America's educational goals is:

"By the year 2000, American students will ... learn to use their minds well, so that they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy" (Wolf et al., 1992, p. 32).

If these skills are valued and need to be developed for students to succeed then implications exist for current assessment systems. Skills, knowledge and attitudes that are valued need to be given the appropriate emphasis in the evaluation of student achievement. Stiggins (1992) indicates that sound assessments describe our understanding of the teaching and learning process and promote learning on the part of the student. The link between assessment and instruction becomes apparent for as Linn (1993) has indicated "[a]ssessments that are an integral part of instruction require that the tasks are valued learning activities in their own right" (p. 13). Student self-evaluation is one such learning experience.

The advent internationally, of new forms of evaluation for student attainment has

mirrored the demand for students to develop: thinking skills; working in teams and interpersonal skills. The advocacy of such skills and qualities has relevance for this research because student self-evaluation fosters what is being demanded. For example, the Secretary's Commission on Achieving Necessary Skills (SCANS) Report for America 2000 defines the quality of self-management as:

"... assesses own knowledge, skills, and abilities accurately; sets well-defined and realistic personal goals; monitors progress toward goal attainment and motivates self through goal achievement; exhibits self-control and responds to feedback unemotionally and non-defensively; is a self-starter" (SCANS, 1992a, p. C-2).

Other recent international educational reports (Dearing, 1993; National Commission On Education, 1993; SCANS, 1992a, 1992b) emphasise the provision of a wider range of vocational skills, the simplification and improvement of approaches to evaluating students' achievements and more opportunity for teachers to use their professional skills. For the schools of tomorrow, where students will be encouraged to be self-managers, to take increased responsibility for their learning and be more reflective about their teaching and learning experiences, the findings of this research will have relevance.

As discussed in chapter two the locus of accountability is related to the nature and purpose of evaluation (House, 1992; Simons, 1992). Context is as important as is the fit of the type of evaluation with the intended purpose. Self-evaluation fulfils a self-development formative purpose. It feeds back information into the teaching and learning process. Its dynamic interdependence with summative evaluation needs to be understood. This contention connects with Fullan's (1993) argument concerning the "... current struggle between state accountability and local autonomy." He claims, " both are right. Success depends on the extent to which each force can willingly contend with if not embrace the other as necessary for productive educational change. ... recognising their dynamic interdependency is essential" (p. 40).

In the evaluation of learning there is a need to recognise that both summative and formative approaches are dynamically interdependent. Formative approaches support the teaching and learning process while summative purposes include accountability, certification and selection. One of the contributions of this research is the recognition that teachers need to continue to develop and implement assessment and evaluation for learning purposes, an argument supported by Harlen (1994). This research also supports James' (1995) argument that: "Government interest is now clearly focused on assessment for accountability. It will therefore be up to schools and teachers to rescue the potential of assessment for learning." Harlen (1994) has also stated "...there has been in England and Wales a quite explicit downgrading of assessment made by teachers" (p. 1). The

implications of this context are accentuated when one considers Vygotsky's viewpoint that assessment and instruction are inextricably linked (Brown, et al., 1992).

The time that is allocated to prepare students and to conduct evaluation for summative purposes needs to be balanced with the amount of time that is allocated for formative learning purposes. Teachers will need to have support and opportunities to develop their professional judgements and confidence in "reclaiming evaluation for learning" in a context of accountability. Gipps (1994) too supports this claim: "The problem that we have in the United Kingdom is that these developments [teacher experience with a variety of assessment methods] and this culture are being eroded as a strongly right wing government puts assessment for the market place and accountability purposes on a traditional, examination model at the top of the agenda and downgrades other approaches" (p. 15).

Resnick and Resnick (1992) stress "[w]e must think of every test or assessment used for public accountability or program evaluation purposes as an instrument that will affect the curriculum" (p. 59). They have argued that mandated accountability tests exert direct and indirect control over curriculum and teaching practice at all levels of the school system. Ball (1994) agrees "... in the new educational market place 'bureaucratic' constraints upon decision making in the school are replaced by the constraints of consumer preference and the demands of government-imposed measures and indicators of performance" (p. 86).

In such a context then it was extremely difficult for the potential of self-evaluation to be realised. The majority of the research was conducted in England where the context was antithetical. Internationally the nineties have experienced demands for measures of scholastic achievement that are treated as "the criterion of a successful school system, a hurtful invention become bureaucratic reality" (Stake & Kerr, 1994, p. 3). League tables, school inspections and pressures for performance indicators have emerged.

Paradoxically, at the same time, there has been an increasing demand for students to develop higher order thinking skills, for them to learn to use their minds well, and for them to be able to use what they have learned outside school settings, such as in the resolution of complex problems that they will encounter as citizens, members of family and of the workforce.

Recent cognitive research (Brown et al., 1992; Resnick and Resnick, 1992; Gardner, 1992) has identified the diversity of learning styles by which people learn. Constructivist learning theory has also highlighted the need for students to actively construct knowledge for themselves, engage in cooperative problem solving and acquire skills learned in the context of real problems. The implications for teachers are that they must facilitate this

process by providing students with skills and learning environments which are more conducive for such learning to take place. The major dilemma as articulated by Gipps (1994) is "... that there are increasing demands for testing at national level which must offer comparability, at the same time as our understanding of cognition and learning is telling us that we need assessment to map more directly on to the processes we wish to develop, including higher order thinking skills, which makes achieving such comparability more difficult" (p. 12).

CONCLUSIONS

As I reflect on those teachers whom I observed struggling with issues of new pedagogy, new evaluation and curriculum, I realise that they were given very few in-service opportunities and limited time to meet to discuss their teaching and learning experiences, or to attend professional development meetings. In a context of examinations, league tables, school inspections and continuous outside pressure to produce results, I recognise the cruel irony and hurtful context in which teachers find themselves. Depleted of energy, time and adequate learning environments (for themselves and their students) and against demanding external contextual odds, it was difficult to implement practice intended to encourage students to self-evaluate their teaching and learning experiences, and then to have quality conversations with their teachers about their learning. Fullan (1993) has argued that the "hardest core to crack is the learning core - changes in instructional practices and in the culture of teaching toward greater collaborative relationships among students, teachers and other potential partners" (p. 49). This study confirms this claim. As argued in chapter seven, it is possible to see the development of student self-evaluation as a strategy which requires adaptive change within the system. Success can only occur when appropriate modifications take place across all the components of that system. Improvements in the quality and efficiency of student learning through the adoption of student self-evaluation processes seem to need a coordinated response from a whole subject department or course team supported by school or college policies. The carefully planned policies will need to be backed up by a national strategy if there are to be the intended long-term effects.

This study has made several additional contributions towards an understanding of evaluation practices for learning. The research illustrates that student self-evaluation can feed back information to the teacher and the student. It fulfils both an improvement function and a motivational purpose in focusing attention on a description of what has been achieved. Student self-evaluation is a process of building formative evaluation into the teaching and learning. The focus is on process, as much as outcomes, to ensure that the quality of those outcomes are sustained. It is a way of designing quality into the

teaching and learning processes by enabling students to make more accurate decisions about the standards of the work they are producing. By presenting an analysis of the processes and by identifying the conditions that support or constrain such practice this research contributes to a theory of the role of formative evaluation in teaching and learning in the classroom. Student self-evaluation puts the educational and formative purposes of evaluating student achievement first and provides a key professional role for teachers. It links evaluation of student achievement with learning; a desired outcome to foster skills for the twenty first century.

This study has responded to the call (Glaser, 1990) for further research to identify changes needed to the teaching and learning environment to promote the development of alternative systems for evaluating student achievement. A deeper understanding of the inter-relations of curriculum, pedagogy and evaluation is offered. The various pedagogical changes that arise in the implementation and development of student self-evaluation processes have been described and analysed. The necessary systemic and adaptive changes have also been discussed. To develop responsible learning behaviour students require opportunities to perform significant, purposeful tasks which allow them to take responsibility for their own learning. Student self-evaluation is one such activity. Self-evaluation can support, sustain and stimulate learning if given the time, the development and favourable contextual conditions required; even more importantly it contributes to the habit and skill of continuous learning on the part of the students.

APPENDIX 1

Background and Description of General National Vocational Qualifications

Background

The first Intermediate and Advanced GNVQ courses were piloted by approximately 100 schools and colleges in September 1992, in the five areas of: art and design, business, health and social care, leisure and tourism, manufacturing. An evaluation of these new qualifications and their assessment procedures recommended further attention to curriculum planning, assessment and staff development (OFSTED, 1993). Intermediate and Advanced GNVQs in these five areas are now generally available for schools and colleges to offer if they have been approved for the purpose by one of the three awarding bodies. The bodies that have been awarded to offer GNVQs by the National Council for Vocational Qualifications (NCVQ) are: Business and Technology Education Council (BTEC), City and Guilds of London Institute and the Royal Society of Arts Examinations Board (RSA).

In September 1993 a pilot program started for Intermediate and Advanced GNVQs in the areas of built environment, hospitality and catering and science and for the Foundation GNVQs in the five areas of art and design, business, health and social care, leisure and tourism and manufacturing.

GNVQs at Foundation, Intermediate and Advanced levels will be developed in six more vocational areas: distribution, engineering, information technology, land based industries, management (Advanced level only) and media and communications. It is also intended to conduct a pilot program for these areas.

A Description of General National Vocational Qualifications

All GNVQs consist of vocational and core skills units. The core skills units are mandatory and common to all GNVQs at the same level, irrespective of vocational area and awarding body offering the qualifications. The vocational units are either mandatory or optional. The mandatory vocational units are the same for GNVQs with the same title and level. The optional vocational units are divided by BTEC, City and Guilds and RSA within criteria set for GNVQs and vary between awarding bodies.

GNVQs are described in the form of the outcomes that students must achieve. The course itself is not prescribed and schools and colleges are given the flexibility to devise their own programs of learning and assessments to suit their circumstances and resources within the parameters set by awarding bodies. GNVQs are assessed according to

specified criteria from National Vocational Qualifications (NVQ) and the awarding bodies. These qualifications have also been designed for delivery for full-time education and in settings where there is only limited access to the workplace. It is possible to study them part-time.

The Advanced GNVQ

The Advanced GNVQ is designed to be equivalent to two General Certificate of Education (GCE) Advanced (A) Levels and core skills. For example, the grades for Advanced GNVQs align with those for GCE A levels (distinction corresponds to the A level grades A/B, merit to grade C, and pass to grades D/E), (NCVQ, 1993a, p. 13). Comparability between the two systems is the aim and where A/AS qualifications are modular there is opportunity for credit transfer.

The Advanced GNVQ consists of eight mandatory units and four optional units (the equivalent of two A levels) and three core skills units at level three of: communication, application of number and information technology. The mandatory units cover the fundamental skills, knowledge, understanding and principles common to a wide range of related occupations. The optional units extend what is covered in the mandatory units, and provide opportunities for more specialised applications.

The Advanced GNVQ is usually offered to post-16 students in a two-year course, however, it is anticipated that some students may need more or less time to complete the course. Flexibility is further evident from the opportunity for students to complete more than the fifteen units required. For example, students may choose units in foreign languages or additional units in mathematics for entry to degree courses in science or engineering. In some cases students can combine an Advanced GNVQ with one A level or one or more AS qualifications in a two-year program.

The GNVQ is also offered at Intermediate and Foundation levels. The former is awarded on the achievement of six vocational units, plus three core skills units at level two while the latter consists of six vocational units plus three core skills units at level one.

Core Skills

The three mandatory core skills units are communication, application of number and information technology and, as indicated above, evidence of achievement at an appropriate level in these units is required for all GNVQs. These core skills have been defined by the national education and training agencies and are considered to be central to education and training, to a wide range of occupations and to life in general.

The core skills units also specify the outcomes that must be achieved at each of the five NVQ/GNVQ levels. The development and assessment of core skills is integrated within the vocational activities that students must perform. Assignments and projects are designed to create opportunities for students to practise, acquire and demonstrate these skills and the vocational outcomes.

BIBLIOGRAPHY

- Anderson, S., Ball, S., Murphy, R. & Associates. (1975) *Encyclopaedia of Educational Evaluation*, San Francisco: Jossey-Bass.
- Apple, M.W. (1983) 'Work, class and teaching', in Walker, S. and Barton, L. (eds) *Gender, Class and Education*, Lewes: Falmer Press.
- Archbald, D. A. & Newmann F. M. (1988) *Beyond Standardized Testing: Assessing Authentic Academic Achievement in the Secondary Schools*, Reston, Virginia: National Association of Secondary School Principals.
- Bachor, D. (1993) 'The changing face of assessment', in Andrews, J. & Lupart, J. (eds) *The Inclusive Classroom: Educating Exceptional Children*, Scarborough: Nelson Canada.
- Ball, S. J. (1987) *The Micro-Politics of the School: Towards A Theory of School Organization*, London: Routledge.
- Ball, S. J. (1994) *Education Reform A Critical and Post-structural Approach*, Buckingham: Open University Press.
- Barnes, R. (1993) 'Keeping track of topic work', *Educational Action Research*, 1 (3): 397-410.
- Black, H. (1986) 'Assessment for learning', in D. L. Nuttall (ed.) *Assessing Educational Achievement*, London: Falmer.
- Black, H. & Broadfoot, P. (1982) *Keeping Track of Teaching: Assessment in the Modern Classroom*, London: Routledge and Kegan Paul.
- Bloom, B. S. (ed.) (1956) *Taxonomy of Educational Objectives: Handbook 1, Cognitive Domain*, New York: David McKay.
- Bloom, B. S., Madaus, G. F. and Hastings, J. T. (1971) *Handbook on the Formative and Summative Evaluation of Student Learning*, New York: McGraw-Hill.
- Bloom, B. S., Madaus, G. F. & Hastings, J. T. (1981) *Evaluation to Improve Learning*, New York: McGraw-Hill.

Bowe, R. & Ball, S. with Anne Gold (1992) *Reforming Education and Changing Schools: Case Studies in Policy Sociology*, London: Routledge.

Brandes, D & Ginnis, P. (1992) *The Student-Centred School*, Herts: Simon and Schuster.

Brandt, R. (1992) 'On performance assessment: a conversation with Grant Wiggins', *Educational Leadership*, 49 (8): 35-37.

Broadfoot, P. (ed.) (1986a) *Profiles and Records of Achievement*, Eastbourne: Holt, Rinehart and Winston Ltd.

Broadfoot, P. (1986b) 'Profiling and the affective curriculum', *Journal of Curriculum Studies*, 19 (1): 25-34.

Broadfoot, P. (1988) 'Profiles and records of achievement: a real alternative', *Educational Psychology*, 8 (4): 291-297.

Broadfoot, P., James, M., McMeeking, S., Nuttall, D., & Stierer, B. (1988) *Records of Achievement Report of the National Evaluation of Pilot Schemes*, London: HMSO.

Broadfoot, P. (1993) *Exploring the Forgotten Continent: A Traveller's Tale*, Keynote Lecture, Scottish Educational Research Conference, University of St. Andrews, Fife.

Brown, A., Campione, J., Webber, L. and McGilly, K. (1992) 'Interactive learning environments: a new look at assessment and instruction', in Gifford, B. & O'Connor, M. (eds) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instructions*, London: Kluwer Academic Publishers.

Burgess, R. (1989) 'Grey areas: ethical dilemmas in educational ethnography' in R. Burgess (ed.) *The Ethics of Educational Research*, London: Falmer Press.

Coleman, P. (1995) 'Improving Schools From The Inside Out: Parents and School Quality,' Handout, Simon Fraser University, Canada.

Confederation of British Industry, (1990) *Towards a Skills Revolution*, Report of the Vocational Education and Training Task Force, London: CBI.

Cronbach, L. J. (1975) 'Beyond the two disciplines of scientific psychology', *American Psychologist*, 30: 116-127.

Cronbach, L. J. (1982) *Designing Evaluations of Educational and Social Programs*, San Francisco: Jossey Bass.

Confrey, J. (1990) 'What constructivism implies for teaching', in Davis, R.B., Maher, C.A. & Noddings, N. (eds) *Constructivist Views on the Teaching and Learning of Mathematics*, Journal for Research in Mathematics Education, Monograph Number 4., Virginia: The National Council of Teachers of Mathematics, Inc.

Darling-Hammond, L., & Ascher, C. (1991) *Creating Accountability in Big City School Systems*, New York: Eric Clearinghouse on Urban Education.

Darling-Hammond, L. (1991) 'The implications of testing policy for quality and equality', *Phi Delta Kappan*, 73 (3): 220-225.

Davydov, V.V. (1995) 'The influence of L.S. Vygotsky on education theory, research and practice', *Educational Researcher*, 24 (3): 12-21.

Dearing, R. (1994) *The National Curriculum and its Assessment*, London: School Curriculum and Assessment Authority.

Department For Education (1994) *Final Report on the National Curriculum and its Assessment: The Government's Response*, London: Department For Education.

Department of Employment, Education and Training, (1993) *Gender Equity in Senior Secondary School Assessment (ESSSA) Project*, Final Report of a Project managed by the Senior Secondary Assessment Board of South Australia.

Department of Employment, Education and Training, (1995) 'Balancing the equation' in *The GEN (The Gender Equity Network)*, January, Canberra: DEET.

Ely, M., et al. (1991) *Doing Qualitative Research: Circles Within Circles*, London: Falmer Press.

Employment Department, (1992) *Flexible Learning: A Framework for Education and Training in the Skills Decade*, Sheffield: Employment Department.

Entwistle, N. (1987) *Understanding Classroom Learning*, London: Hodder and Stoughton.

Entwistle, N. (1993) *Teaching and the Quality of Learning*, Report of a seminar held on 25 November, London: Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom and Society for Research into Higher Education.

Erickson, F. (1986) 'Qualitative methods in research on teaching', in M. Whittrock (ed.) *Handbook of Research on Teaching*, New York: Macmillan.

Francis, H. (1994) *Teachers Listening to Learner's Voices*, London: The British Psychological Society.

Fullan, M. G. & Hargreaves, A. (1991) *What's Worth Fighting For? Working Together for Your School*, Melbourne: Australian Council for Educational Administration Inc.

Fullan, M. G. (1991) *The New Meaning of Educational Change*, London: Cassell.

Fullan, M. G. (1993) *Change Forces: Probing the Depths of Educational Reform*, London: Falmer Press.

Gallimore, R. & Tharp, R. (1992) 'Teaching mind in society: teaching, schooling and literate discourse', in L. C. Moll (ed.) *Vygotsky and Education*, Cambridge: Cambridge University Press.

Gardner, H. (1983) *Frames of Mind*, New York: Basic Books.

Gardner, H. (1991) *To Open Minds*, New York: Basic Books.

Gardner, H. (1992) 'Assessment in context: the alternative to standardized testing', in Gifford, B. & O'Connor, M. (eds) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instructions*, London: Kluwer Academic Publishers.

Geertz, C. (1973) *The Interpretation of Cultures*, New York: Basic Books.

Gifford, B. & O'Connor, M. (eds) (1992) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instructions*, London: Kluwer Academic Publishers.

Gipps, C. (1994) *Beyond Testing: Towards A Theory of Educational Assessment*, London: Falmer Press.

Glaser, R. (1990) 'Towards new models for assessment', *International Journal of Educational Research*, 14 (5): 475-83.

Glaser, B. G. & Strauss, A. L. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago: Aldine Publishing Company.

Goldstein, H. (1993) 'Assessment and accountability', Parliamentary Brief, October, 2 (3).

Gordon, P. & Lawton, D. (1984) *A Guide to English Educational Terms*, London: Batsford Academic and Educational Ltd.

Green, T. (1994) *The Triangle of Reflexivity*, Seminar, Institute of Education, The University of London.

Guba, E. G. and Lincoln, Y. S. (1989) *Fourth Generation Evaluation*, New York: Sage Publications.

Hargreaves, A. (1994) *Changing Teachers, Changing Times: Teachers' Work and Culture in the Post-Modern Age*, London: Cassell.

Harlen, W. (1994) *Concepts of Quality in Student Assessment*, Paper presented at the American Educational Research Association Annual Meeting, New Orleans.

Harnisch, D. L. & Mabry, L. (1993) 'Issues in the development and evaluation of alternative assessments', *Journal of Curriculum Studies*, 25 (2): 179-187.

Hirst, P. (ed.) (1983) *Educational Theory and Its Foundation Disciplines*, London: Routledge & Kegan Paul.

House, E. R. (1992) 'Future policy for school-based evaluation', in *Theory and Practice of School-based Evaluation: A Research Perspective*, Report from the Conference at Oppland College, Lillehammer, Norway.

Hoyle, E. (1982) 'Micropolitics of educational organizations', *Educational Management and Administration*, 10.

Hoyle, E. (1986) *The Politics of School Management*, London: Hodder and Stoughton.

Huberman, A. M. and Miles, M. B. (1984) *Innovation Up Close: How School Improvement Works*, New York: Plenum.

Inner London Education Authority (1989) *The London Record of Achievement: Putting Students First*, London: College Hill Press.

Ivic, I. (1992) *Piaget's and Vygotsky's Theories As Conceptual Bases for New Models of Educational Outcome Indicators*, Paper presented at the American Educational Research Association Annual Meeting, San Francisco.

James, M. (1995) *Matters of Judgment*, The Times Educational Supplement, April 28, 1995.

Klenowski, V. (1992) *Professional Development for Self-Evaluation: A Self-Sustaining Process?* Paper presented at the American Educational Research Association Annual Meeting, San Francisco.

Klenowski, V. (1994) *A Vision Driven, Collective Effort to Improve the Quality of Teaching and Learning*, Report for the National Project on the Quality of Teaching and Learning, Canberra, Australia.

Licht, G. B., & Dweck, C. S. (1983) *Sex Differences in Achievement Orientations: consequences for academic choices and attainments*, in Marland, M. (ed.) *Sex Differentiation and Schooling*, London: Heinemann.

Lieberman, A., Darling-Hammond, L., & Zuckerman, D. (1991) *Early Lessons in Restructuring Schools*, New York: National Center for Restructuring Education, Schools and Teaching.

Lieberman, A. (1991) 'Accountability as a reform strategy' *Phi Delta Kappan*, 73 (3): 219-220.

Linn, R. L., Baker, E. L. & Dunbar, S. B. (1991) 'Complex, performance-based assessment: expectations and validation criteria', *Educational Leadership*, 20 (8): 15-21.

- Linn, R. L. (1993) 'Educational assessment: expanded expectations and challenges', *Educational Evaluation and Policy Analysis*, 15 (1): 1-16.
- Lofty, J. S. (1993) 'Can Britain's national curriculum show America the way?' *Educational Leadership*, 50 (5): 52-55.
- MacDonald, B. (1991) 'Critical introduction: from innovation to reform - A framework for analysing change', in Rudduck, J. *Innovation and Change*, Milton Keynes: Open University Press.
- MacDonald, B. and Walker, R. (1976) *Changing the Curriculum*, London: Open Books.
- Maxwell, G. (1993) 'Criteria and standards based assessment in applied statistical mathematics', in Izard, J. & Stephens, M. (eds) *Reshaping Assessment Practices: Assessment in the Mathematical Sciences Under Challenge*. Proceedings of the First International Conference on Assessment in the Mathematical Sciences, Geelong, October, 1992, Victoria: Australian Council for Educational Research.
- Maxwell, G. (1994) *School-based Assessment in Queensland*, Unpublished paper, Assessment and Evaluation Research Unit, Graduate School of Education, The University of Queensland, Australia.
- McClure, R. M. & Walters, J. (1992) *Alternative Forms of Student Assessment*, Paper presented at the American Educational Research Association Conference, San Francisco.
- McDonald, J. P. (1992) *Steps in Planning Backwards: Early Lessons from the Schools*, Providence: Coalition of Essential Schools, Brown University.
- McKenzie, P. A. & Harrold, R.I. (1989) 'Tools for self-evaluation: development in Australia', *Studies in Educational Evaluation*, 15 (1): 31-45.
- McMahon, A. et al. (1984) *Guidelines For Review and Internal Development in Schools: Secondary School Handbook*, London: Longman.
- Merriam, S. B. (1991) *Case Study Research in Education: A Qualitative Approach*, San Francisco: Jossey-Bass.

Miles, M. B. & Huberman, M. A. (1984) *Qualitative Data Analysis: A Sourcebook of Methods*, Beverly Hills: Sage Publications.

Ministry of Education of Western Australia. (1987) *Better Schools in Western Australia: A Programme for Improvement*, Western Australian Government Printer.

Ministry of Education of Western Australia. (1989) *School Development Planning: Policy and Guidelines*, Western Australian Government Printer.

Ministry of Education of Western Australia. (1991) *School Accountability Policy and Guidelines*, Western Australian Government Printer.

Moll, L. C. (ed.) (1992) *Vygotsky and Education Instructional Implications and Applications of Socio-Historical Psychology*, Cambridge: Cambridge University Press.

Munby, S. with Phillips, P. & Collinson, R. (1989) *Assessing and Recording Achievement*, Oxford: Blackwell Education.

National Commission On Education (1993) *Learning To Succeed A Radical Look at Education Today and A Strategy for the Future*, London: Heinemann.

National Council for Vocational Qualifications (1993a) *General National Vocational Qualification Information Note*, London: NCVQ.

National Council for Vocational Qualifications (1993b) *Mandatory Units for Science Intermediate and Advanced for pilot programmes starting for September 1993*, London: NCVQ.

National Council for Vocational Qualifications (May, 1994a) *Grading Advanced GNVQs*, London: NCVQ.

National Council for Vocational Qualifications (September, 1994b) *Grading Advanced GNVQs*, London: NCVQ.

National Council for Vocational Qualifications (1994c) *GNVQ Newsletter, Issue 2*, London: NCVQ.

National Project on the Quality of Teaching and Learning (NPQTL) Secretariat, (1991) *Quality Time*, Canberra: National Project on the Quality of Teaching and Learning.

Newmann, F. (1991) 'Linking restructuring to authentic student achievement', *Phi Delta Kappan*, 72 (6): 458-463.

Nias, J., Southworth, G. & Campbell, P. (1992) *Whole School Curriculum Development in the Primary School*, London: Falmer Press.

Nuffield Science in Practice, (1994a) Notes on Advanced GNVQ Meeting of March 1994, London: Nuffield Science in Practice.

Nuffield Science in Practice, (1994b) Newsletter, Issue 4, London: Nuffield Science in Practice.

Nuttall, D. L. (1987) 'The validity of assessments', *European Journal of Psychology of Education*, 11 (2): 109-118.

OFSTED. (1993) *GNVQs in schools. The Introduction of General National Vocational Qualifications 1992*, London: HMSO.

Owens, G. and Soule, L. (1971) 'The individual profile', *Forum*, 13, Spring.

Parlett, M. & Hamilton, D. (1977) 'Evaluation as illumination: a new approach to the study of innovatory programmes', in Hamilton, D. et al. (eds) *Beyond the Numbers Game*, London: Macmillan Education Ltd.

Patton, M. (1980) *Qualitative Evaluation Methods*, Beverley Hills, California: Sage.

Perrone, V. (ed.) (1991) *Expanding Student Assessment*, Virginia: Association for Supervision and Curriculum Development.

Rea-Dickins, P. & Germaine, K. (1991) *Evaluation*, Oxford: University Press.

Reich, R. B. (1993) *The Work of Nations Preparing Ourselves for 21st-Century Capitalism*, London: Simon Schuster.

Resnick, L. B. & Resnick, D. P. (1992) 'Assessing the thinking curriculum: new tools for educational reform', in Gifford, B. & O'Connor, M. (eds) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instructions*, London: Kluwer Academic Publishers.

Rieber, R.W. & Carton, A. S. (eds) (1987) *The Collected Works of L. S. Vygotsky, Volume 1, Problems of General Psychology*, London: Plenum Press.

Rosenshine, B. & Meister, C. (1994) 'Reciprocal teaching: a review of the research', *Review of Educational Research*, 64 (4).

Rudduck, J. (1991) *Innovation and Change*, Milton Keynes: Open University Press.

Sadler, R. (1989) 'Formative assessment and the design of instructional systems', *Instructional Science*, 18 (2): 119-144.

Sadler, R (1985) 'The origins and functions of evaluative criteria', *Educational Theory*, 35 (3): 285-297.

Sarason, S. B. (1991) *The Predictable Failure of Educational Reform*, San Francisco: Jossey-Bass.

Scriven, M. (1967) 'The methodology of evaluation', in R.W. Tyler, R. Gagne & M. Scriven (eds) *Perspectives of curriculum evaluation*, AERA Monograph Series on Curriculum Evaluation 1, Chicago: Rand Mc Nally.

Secretary's Commission on Achieving Necessary Skills (SCANS) (1992a) *What Work Requires of Schools* A SCANS Report for America 2000, Washington: US Department of Labor.

Secretary's Commission on Achieving Necessary Skills (SCANS) (1992b) *Learning a Living: A Blueprint for High Performance* A SCANS Report for America 2000, Part 1, Washington: US Department of Labor.

Shepard, L. A. (1992) 'What policy makers who mandate tests should know about the new psychology of intellectual ability and learning', in Gifford, B. & O'Connor, M. (eds) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instructions*, London: Kluwer Academic Publishers.

Simons, H. (1987) *Getting to Know Schools in a Democracy: The Politics and Process of Evaluation*, London: Falmer Press.

Simons, H. (1989) 'Ethics of case study in educational research and evaluation', in R. Burgess (ed.) *The Ethics of Educational Research*, London: Falmer Press.

Simons, H. (1990) *School Self-Evaluation: Monitoring and Review, a Professional Development and Training Program*, Centre for Educational Evaluation, University of London, Institute of Education.

Simons, H. (1992) 'Towards professional schools: the state of the art of school-based evaluation', in *Theory and Practice of School-based Evaluation: A Research Perspective*, Report from the Conference at Oppland College, Lillehammer, Norway.

Simons, H. (1994) *Reporting In Case Study Research*, University of Southampton.

Sizer, T. (1990) 'Performances and exhibitions: the demonstration of mastery', *Horace*, 6(3): 1-12.

Sizer, T. (1992) *Horace's School: Redesigning the American High School*, Boston: Houghton Mifflin Company.

Smith, K. (1994) *Evaluation- Assessment-Testing What? How? Who?* Paper presented at the 28th International IATEFL Conference, Brighton.

Smith, F.L. & Stevenson, Z. (1992) 'A student-centred approach to assessment', *NASSP Bulletin*, 76(545): 389-395.

Smith, L. (1980) 'Some not so random thoughts on doing fieldwork: the interplay of values', in H. Simons (ed.) *Towards a Science of the Singular*, Norwich: University of East Anglia, Centre for Applied Research in Education.

Smithers, A. (1993) *All Our Futures: Britain's Education Revolution*, London: Channel 4 Television, Broadcasting Support Services.

Spandel, V. & Stiggins, R. J. (1989) *Creating Writers: Linking Assessment and Writing Instruction*, New York: Longman.

Stake, R. E. (1979) 'Counterpoint: should educational evaluation be more objective or more subjective?', *Educational Evaluation and Policy Analysis*, 1 (1): 46-47.

Stake, R. E. (1994) 'Case studies' in Denzin, N & Lincoln, Y., (eds) *Handbook of Qualitative Research*, Thousand Oaks, California: Sage Publications.

Stake, R. E. & Kerr, D. (1994) *Rene Magritte, Constructivism, and the Researchers as Interpreter*, paper presented at the American Educational Research Association Annual Meeting, April 1994, New Orleans, Louisiana.

Stenhouse, L. (1975) *An Introduction to Curriculum Research and Development*, London: Heinemann Educational.

Stiggins, R. (1991) *In Teachers' Hands: Investigating the Practices of Classroom Assessment*, Albany: State University of New York.

Stiggins, R. (1992) 'Two Disciplines of Educational Assessment', Paper presented at ECS Assessment Conference, June, Boulder, Colorado.

Suarez, T. M. & Gottovi, N. C. (September, 1992) 'The impact of high-stakes assessments on our schools', *NASSP Bulletin*, 82-88.

Torrance, H. (1989) 'Ethics and politics in the study of assessment' in R. Burgess (ed.) *The Ethics of Educational Research*, London: Falmer Press.

Torrance, H. (1993) 'Formative assessment - some theoretical problems and empirical questions', *Cambridge Journal of Education*, 23 (3): 333-343.

Towler, L. & Broadfoot, P. (1992) 'Self-assessment in the primary school', *Educational Review*, 44 (2): 137-151.

Tunstall, P. & Gipps, C. (in press) *Teacher Feedback to Young Children*, ULIE: ESRC.

Wallace, J. & Wildy, H. (1995) *One Two Buckle My Shoe, Three Four ... Knocking At The Door Of Classroom Restructuring*, Paper presented at the American Educational Research Association Annual Meeting, San Francisco.

- Wasley, P. A. (1991) *Teachers Who Lead: The Rhetoric of Reform and the Realities of Practice*, New York: Teachers College Press.
- Wasley, P. A. (1994) *Stirring The Chalkdust; Tales of Teachers Changing Classroom Practice*, New York: Teachers College Press.
- Wiggins, G. (1989) 'A true test: toward more authentic and equitable assessment', *Phi Delta Kappan*, 70 (9): 703-713.
- Wiggins, G. (1991) 'Standards, not standardisation: evoking quality student work', *Educational Leadership*, 48 (5): 18-25.
- Wiggins, G. (1992) 'Creating tests worth taking', *Educational Leadership*, 49 (8): 26-33
- Wigginton, E. (1989) 'Foxfire grows up' *Harvard Educational Review*, 59 (1): 24-49.
- Wigginton, E. (1991) *The Foxfire Approach: Perspectives and Core Practices*, Rabun Gap: The Foxfire Fund Inc.
- Williams, K. (1992) *Assessment: A Discussion Paper*, Ireland: Cumann na Meanmhuinteoiri, Eire Association of Secondary Teachers.
- Willis, D. (1992) *Learning and Assessment: Exposing the Inconsistencies of Theory and Practice*, Paper presented at ULIE, March.
- Wilson, M. (1992) 'Educational leverage from a political necessity: implications of new perspectives on student assessment for chapter 1 evaluation', *Educational Evaluation and Policy Analysis*, 14 (2): 123-144.
- Wolf, R. M. (1990) 'The nature of educational evaluation' in H. J. Walberg & G. D. Haertel (eds.) *The International Encyclopaedia of Educational Evaluation*, Oxford: Pergamon Press.
- Wolf, D., Bixby, J., Glenn, J. & Gardner, H. (1991) 'To use their minds well: investigating new forms of student assessment', *Review of Research in Education*, 17: 31-74.

Yin, R. K. (1989) *Case Study Research: Design and Methods*, London: Sage Publications.

Zessoules, R. & Gardner, H. (1991) 'Authentic assessment: beyond the buzzword and into the classroom' in V. Perrone (ed.) *Expanding Student Assessment*, Alexandria, Virginia: Association for Supervision and Curriculum Development.

