

FRILLS SKILLS OR DILLS FOR AUSTRALIA - DEVELOPMENTS IN POST-COMPULSORY EDUCATION AND TRAINING

ABSTRACT

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For the past five years, the Commonwealth government has been advocating and vigorously implementing competency-based training. The background to and concept of these ideas are briefly outlined together with a summary and an examination of the Finn Report, the Carmichael Report and the on-going work of the Mayer Committee. The paper will also briefly examine the role and power of discourse in the Government's current attempts to restructure education in Australia. While some of the implications of these reports are currently being extensively felt in the vocational education and training sector, there are implications for Education in Schools and Universities.

INTRODUCTION

During the last five years, the Commonwealth government has been advocating, and relentlessly implementing, competency-based training. These ideas originate in the late 1970s and early 1980s, when Departments of Labour were seeking greater national consistency in vocational education and training and more influence over its provision.

Important reports leading to competency-based training are Australia Reconstructed (ACTU/TDC Mission to Western Europe, 1987) and Skills for Australia (Dawkins & Holding, 1987). These reports signalled the beginning of industrial award restructuring to produce a "highly skilled and adaptable workforce", as the major part of the government's goal to be internationally competitive.

At the national level, DEET (Department of Employment, Education and Training) and NBEET (National Board of Employment, Education and Training) were formed, combining government instrumentalities concerned with education and training. State TAFE systems, throughout Australia, have also gradually merged with state Departments of Labour.

The Deveson Report (Deveson, 1990) had foreshadowed the wide-spread introduction of competency-based training. Guidelines were established by The National Training Board (1990, 1991) for the identification of competences (by industrially based Competency Standard Bodies) and for the documentation of competences. Mechanisms have been established for industry to control the determination of competences comprising occupational functions. MOVEET (Ministers of Employment, Vocational Education and Training) has agreed that accreditation of all vocational courses will require course documentation in terms of these competences. Implementation will be completed by 1995.

Award restructuring in industry, leading to merged unions and work practice re-definition, with underlying concepts of broad-skilling and multi-skilling, has gathered momentum, ever since. In addition, the commonwealth government has sought to broaden provision of vocational education and training. It seems to regard the introduction of competency-based training, with its exclusive emphasis on learning outcomes, irrespective of how achieved, as a key to wider legitimated provision. Introduction of the Australian Training Guarantee (Minister for Employment, Education and Training, 1988; National Board of Employment, Education and Training, 1989) relies on widespread recognition of competences developed in the work place.

The Australian Standards Framework is also gaining national acceptance (see Finn, 1991; The National Training Board, 1991). Using definitions from the National Training Board (1991), this framework can be summarised as in Table 1 (Stevenson, 1992). Assumptions about underlying

conceptual and procedural knowledge in parts of this hierarchy need questioning. An additional feature is that the levels include those targeted by university programmes.

Table 1: Characteristics of Attributes at Different National Training Board Competency Levels

Competency Level	Routine Predictable Repetitive, Procedural Tasks	Apply Theoretical Knowledge and Motor Skills	Ability Perform Complex Tasks	Supervision	Creativity Planning Design	Management Accountability Responsibility for Others
1 - Operative	Y(c)	L(c)				
2 - Advanced Operative	Y(g)	Y(c)				
3 - Skilled	Y(i)	Y(i)	Y			
4 - Advanced Skilled	Y(i)	Y(i) Y(s)	Y	L		
5 - Para-professional	Y(i)	Y(i) Y(s)	Y	L	L	
6 - Para-professional	Y(i)	Y(i)+	Y	Y	Y(p)	
7 - Professional	Y(i)	Y(i)++		Y+	Y+	Y+
8 - Senior Professional	Y(i)	Y(i)++ & Generates	Y+		Y++	Y++

Notes:

- Y Yes
- Y(c)(g) Yes, under close (general) supervision
- Y(s) Yes, including selection of techniques and equipment
- Y(i) Yes, self directed application, independent use.
- Y(p) Yes, relating to products, services, operations or processes
- Y+/Y++ Yes, highly/very highly developed
- L Yes, but limited
- L(c) Yes, under close supervision

The government asserts that competency-based training is not neo-behaviourist, and that it accommodates the attributes needed for adaptability, innovation, interpersonal communication and higher order thinking. For example, in 1989, the Commonwealth government advocated "flexible broadly based and modular approaches to both on and off-the-job training" (Minister for Employment, Education and Training, 1989, p 1) and the acquisition of "new and higher level skills" (p 2). The Minister also recognised the need for "not merely technical skills and competence, but also ... quality, teamwork, innovation, management and organisation of work" (p 4).

At first glance, these statements suggest a governmental attempt to break the nexus between specific industrial skills and their reproduction in vocational educational curricula. Hall and Hayton (1988) have been confident that award restructuring would require vocational educational content with greater emphasis on such knowledge as concepts, technological literacy, ability to learn and adaptability. However, implementation of the government's push for modular competency-based courses in industrial award restructuring seems to be incompatible with a realisation of a focus on conceptual understanding and higher order cognitive skills. Moreover, the Minister explains breadth as "multiskilling" (Minister for Employment, Education and Training, 1989, p 14) and as "set(s) of broad-based job classifications, each of which encompasses a broad range of tasks, functions and/or skills at **that** [emphasis added] level" (p 13). Despite the mismatch, the insistence that competency-based training is not Taylorist or behaviourist has been continuously asserted by its architects (e.g. see Carmichael, 1991).

THE CHANGING CONCEPT OF COMPETENCE

The concept of competence has been undergoing subtle changes, recently, and it seems as though it will undergo further change. One of the reasons for the change seems to be attempts to identify and document key areas of general vocational competence, flowing from the Finn Report (1991) and the Mayer Committee (1992) deliberations. Another reason seems to flow from the deliberations of the VEETAC (Vocational Education, Employment and Training Advisory Committee) Working Party on Implementation of Competency-Based Training. Part of the reason also seems to be due to the difficulties of writing competences in the form initially specified and difficulties in establishing appropriate levels of specificity. Further, there has been substantial criticism of the ways in which competence has been conceptualised (e.g. see National Board of Employment, Education and Training, 1990; Stevenson & McKavanagh, 1992).

Some of the different conceptions of competence emanating from the various reports are summarised below.

Definitions of Competence

*Competence is the ability to perform the activities within an occupation or function to the level expected in employment (The National Training Board, 1990, 1991)

*Competence comprises the specification of knowledge and skills and the application of that knowledge and skill within an occupation or industry level to the standard of performance required in employment (The National Training Board, 1991)

*Competence involves the attributes enabling performance of a range of professional tasks to the appropriate standards (Gonczi, Hager & Oliver, 1990) - where attributes are the knowledge, abilities, skills and attitudes that together underlie competent professional performance; competency is a combination of attributes underlying some aspect of successful professional performance - vary from specific to complex; and standards are levels of achievement required for performance to be judged competent

*Areas of competence - competencies - are aspects of professional practice (roles, tasks, kinds of knowledge needed, kinds of skills and abilities needed, affective and interpersonal qualities desired - in a defined area (division) of professional practice); and standards are minimum acceptable level of competence against which candidates are to be judged (Masters & McCurry, 1990)

*Competence is about what people can do. Mindful thoughtful capabilities. Skilful application of understandings. Transferable, not automated (The Mayer Committee, 1992)

*Competence comprises the specification of the knowledge and skill and the application of that knowledge and skill to the standard of performance required in employment (VEETAC Working Party on the Implementation of Competency-Based Training, 1992)

From the changes which seem to be occurring, there appears to be a generalisation of the concept in at least two ways. Firstly, the concept has taken on the inclusion of adaptability and problem-solving. Secondly, the need for conceptual understanding and procedural knowledge for problem-solving is beginning to receive explicit attention. The deliberations of the Mayer Committee may help further in this broadening of the concept, by including attributes not previously emphasised.

RECENT NATIONAL REVIEWS ON POST-COMPULSORY EDUCATION

The most significant vehicles for the development of the restructuring of post-compulsory education are the Finn Report (1991), the Carmichael Report (1992) and the work of the Mayer Committee (1992).

It would be helpful at this point to briefly summarise and examine these recent national reviews and discuss some of their more obvious implications for post-compulsory education..

The Finn Report (Finn, 1991)

The main recommendations of the Finn Report are summarised in sections dealing with targets for increasing the participation of 15-19 year olds in education and training, curriculum principles for courses undertaken by these young people, the key areas of competence to be developed in these courses, the training of teachers to develop these competences, widening the range of available educational pathways and improving links among them, and improving career education and provision for the disadvantaged.

Targets

The Finn Committee recommended that:

*by the year 1995, all young people by the age of 18 should have attained sufficient vocational skills to achieve at least a base-level traineeship (or other vocational qualification recognised by the National Training Board as Level 1 or participation in Year 12 or progress toward a higher qualification,

*by the year 2001, 95% of 19 year olds should have completed Year 12 or an initial post-school qualification or be participating in formally recognised education or training,

*by the year 2001, almost all people by the age of 20, should have attained at least a higher level traineeship (or other vocational qualification recognised by the National Training Board as Level 2 or progress toward a higher level vocational qualification or a post year 12 academic qualification, and that

*by the year 2001, at least 50% of people by the age of 22 should have attained at least a vocational certificate (or other vocational qualification recognised by the National Training Board as Level 3 or progress towards a vocational qualification above Level 3 or a diploma of a degree.

These targets have implications for all sectors. For instance, universities are concerned that the targets imply reduced relative funding for universities and take no account of flow-on effects for universities. The implied equivalence across courses offered in various sectors of education and training could also have implications for each of these sectors. Some of these implications are made explicit in the recommended curriculum principles and in the common Key Competencies listed below.

Curriculum Principals

There are explicit recommendations for school and TAFE curricula. For example, school programs should incorporate the Agreed National Goals for schools and the employment-related Key Competencies; a stronger commitment is sought, in the school sector, to integrated and appropriately structured work experience; accreditation is sought for learning in the work place; curriculum should be adaptable to flexible learning contexts, including non-institutional community-based contexts; vocational education must reflect the needs of industry as well as meeting national standards and promoting a higher level of general education; curriculum must

be structured across all sectors to maximise students flexibility in choices of pathways, re-entry capacity and articulation and cross accreditation; expected outcomes must be explicitly structured into standards frameworks which, where relevant, are compatible across the school and TAFE/training sectors to allow for consistent and credible assessment and reporting on student achievement in Key Competencies; and progression through curriculum stages/levels must be based on achievement or competence

The report also recommended changes not only in school and TAFE curricula, but also in the relationships (especially credit transfer) among these and university curricula. One attempt at unification is through proposing key competences, listed in the following section. The Carmichael Report (1992) addresses some of these inter-relationships.

Key Areas of Competence

The Finn Report lists Key Areas of Competence for young people aged 15-19 years, irrespective of the sector of post-compulsory education or training (schools, TAFE, industry training) in which they are participating. These competences have been listed in Table 2. The committee also recommended that the Key Competences be further detailed, especially for National Training Board Levels 1-3.

Table 2

Language and Communication <ul style="list-style-type: none"> •speaking •listening •reading •writing •accessing and using information 	Cultural Understanding <ul style="list-style-type: none"> •understanding and knowledge of Australia's historical, geographic and political context •understanding of major global issues - eg competing environmental, technological and social priorities •understanding of the world of work, its importance and requirements
Mathematics <ul style="list-style-type: none"> •computation •measurement •understanding mathematical •symbols 	Problem solving <ul style="list-style-type: none"> •analysis •critical thinking •decision making •creative thinking •skill transfer to new contexts
Scientific and Technological Understanding <ul style="list-style-type: none"> •understanding scientific and technological concepts •understanding the impact of science and technology on society •scientific and technological skills including computing skills 	Personal and Interpersonal <ul style="list-style-type: none"> •personal management and planning including career planning •negotiating and team skills •initiative and leadership •adaptability to change •self esteem •ethics

Considerable debate has ensued as to whether this is a good and comprehensive set of key employment-related general vocational competences. Other suggested competences include those related to creativity (including the arts), family and household management and information technology. (The status of LOTE as an employment-related competence is to be kept under review).

Teacher Training and Provisions and Pathways

The Committee recommended that AEC and MOVEET refer the proposals to the National Project on the Quality of Teaching and the VEETAC Working Party or TAFE Staff and Related Issues with a brief to identify implications for initial preparation and in-service development of school and TAFE/training teachers and to develop strategies to support teachers in the changes.

Recommendations include extension of existing apprenticeship and traineeship (entry level training) arrangements; clear opportunities for movement between entry level training and school with credit; uniform compulsory requirement to attend school to end Year 10; post-compulsory education and training guarantee for all young people (under 20) to attend school or TAFE for two years full-time after Year 10 (or equivalent part-time for 3 years); a review of National Training Board Levels (especially 1 and 2); maximum credit transfer between schools and TAFE; and competency-based approaches to university entry and credit transfer

Explicit models for achieving these recommendations have been proposed in the Carmichael Report (1992). Other recommendations include consideration be given to separating provision of compulsory and immediate post-compulsory education; enhancement of participation of the disadvantaged and more and better coordinated career education

Discussion and Implications of the Finn Report

The Queensland Affiliation of Arts Educators (QAAE) of which ASME (Qld) is a member, responded to the inadequacies of the Finn report by writing to the Hon. EK Hallahan, Minister for Education, Employment and Training, TAFE and the Arts pointing out four perceived deficiencies of the Finn Review for the arts industry and the arts in education. These were inadequate identification of the Key Competence areas, non-recognition of the growing and substantial growing arts industry, non-recognition of the productive value of leisure and recreational activities and non-recognition of the value to many industries of skills developed through arts education. QAAE also advised the Australian Education Council of these perceived deficiencies. As a result of these communications the arts were placed on the national agenda in the context of the Finn Report.

Other questions raised by Stevenson (1992b), concerning possible implications, are as follows:

*A uniform set of key competences has been set for education and training in all sectors, and the Committee has recommended that these be expressed in competency-based (outcome) terms. What effects will this have on school curricula, especially process aspects of learning and the nationally agreed goals of schooling?

*Accreditation of industrial training is sought, together with improved articulation among all educational and training sectors. Will there be further pressure for curricula in schools and universities to be expressed in outcome and competency-based terms so that relationships among courses can be examined?

*What effects will the increasing focus on general attributes in vocational education have on courses offered in TAFE, courses offered by private providers and industrial training? Will it be broader and more general, and will trainees develop the higher level attributes needed for skilled, adaptable and innovative work force sought by the commonwealth government?

*Will existing teachers and training in vocational education need in-service education to teach the key competences? Will teachers from general education be sought to teach these areas of the curriculum? What are the advantages of each approach?

*How will universities recognise non-school qualifications and competence acquired outside through experience for entry to, and advanced standing in, undergraduate and higher degree programs?

*Will the participation targets alter the mix of educational participation, say, with fewer students in upper secondary and university courses and more in TAFE and industrial training programs? How will this affect funding for the sectors?

*What will be the flow-on effects of increased participation in education and training, for university education?

*What kind of effect will the increasing nationally led focus on pre-specified, externally determined educational outcomes have on the attributes and qualities of those entering further study and employment?

*What are the implications for the training of teachers? What will be the relationships among pre-service training for industrial trainers (currently ranging from 3 days to degree level) and the training of other teachers?

*What implications are there, for general education, of the increasing national adoption of the 8 level Australian Standards Framework?

The Carmichael Report

This report, entitled "The Australian Vocational Certificate Training System" was issued by the Employment and Skills Formation Council (ESFC) in March this year. The committee which prepared the report was chaired by Laurie Carmichael, the Chair of the ESFC. The report sought to promote competency based training through a blend of on the job training and off the job training (study). Other recommendations included the following.

A New Competency-based Vocational Certificate Training System

- Introduction of 4 vocational certificate levels equating with the Australian Standards Framework levels 1-4 and incorporating the generic key areas of competence.

Implementation of Competency-based Training

- Acceleration so that CBT is implemented in all industry sectors and almost all enterprises by 1995.
- Revision of ASF levels 1, 2 (and possibly 3).
- Assessment be primarily based in the work place.

Targets

Modified Finn participation targets as follows. By 2001:

- 90% 19 year olds completed Year 12 or initial post-school qualification or participating in formally recognised education and training.
- 90% 20 year olds attained ASF Level 2 qualification or progressing to higher level qualification.
- 60% 22 year olds attained ASF Level 3 or higher qualification.
- equality between overall rates of participation or levels of attainment between men and women.

Common Framework for Vocational Certificate Training

- Multiple pathways through vocational education and training, with flexible delivery arrangements and provision for articulation and credit transfer.
- Merging of apprenticeships and traineeships into a new system providing essentially work-based vocational certificate training.

•Flexibility, to include:

- * Year 11 and 12 students to acquire vocational competencies to Level 1 and generic key areas of competence e.g. through work-based training during Years 11 and 12, or 3 months structured work experience on completion of Year 12 (Contribution from casual or part-time employment to be recognised).
- * Integrated "vocational year" (including structured work experience) delivered by TAFE and/or Senior Colleges or equivalent for students who have completed Year 12, which leads towards ASF Level 2 Certificate (attained after further work experience).
- * Year 10 leavers acquire generic key areas of competence to Year 12 and vocational competencies to ASF Level 1 or 2 in half-time work/half-time study programs over period of three years (18 months for Year 11 leavers).
- * Flexible structured programs of training in key areas of competence and vocational training from ASF Certificate Levels 1 to 2, 2 to 3, directly to 3, and to 4 directly or through 1-3, such work based training integrated with appropriate certificate level studies at a TAFE or Senior College.

Delivery

- More vocational options in Years 11-12, including work experience and on-the-job training for credit, preferably in courses jointly accredited by school and vocational accrediting bodies.
- Reform of school curricula and teacher training to promote extensive use of contextual learning methods.
- Nationwide development of public and private Senior Colleges, separate from Years 7-10, providing mature environments for the delivery of:
 - upper secondary programs for Years 11 and 12.
 - off-the-job elements of vocational programs up to ASF Certificate Level 2 in cooperation with TAFE.
 - the first year of higher education programs in association with higher education institutions.
- Delivery of Years 11 and 12 by TAFE colleges where appropriate.
- Broad careers education in the curriculum from the beginning of secondary education.
- Full implementation of Finn recommendations on career education in all schools by 1995.

Integrated Networks

- Closely linked networks of Senior Colleges, TAFE Colleges and private and community providers of off-the-job education and training.
- Framework agreements for cooperative delivery of vocational courses by TAFE, Senior Colleges, other state and non-state high schools, with costs paid by state or territory governments under the Youth Guarantee.
- Development of TAFE as institutions with a predominant focus on advanced vocational education and training from ASF Certificate Level 2 to Diploma level.
- Open learning and community learning centres,

Training Plans and Agreements, Training Market

- Each industry and large enterprise to have plans for the introduction of vocational certificate training by December 1993.
- Training agreements to provide for the acquisition of the key areas of competence to at least ASF Levels 1,2 or 3.
- A more open training market with a greater diversity of providers.

Access and Equity

- Gender equity in rates and levels of participation by 2001.
- Critical mass targets for minority representation of women in all occupations by 2001.
- Australian committee for Training Curriculum (ACTRAC) develop a core curriculum for the reading, writing and speaking of English based around the concept of contextual learning.
- Staged program for equity by 2001 in ATSI rates and levels of participation.

Discussion and implications of the Charmicael Report

Some of the principles on which the report is based continue to be contradictory. On the one hand, the report seeks that all training be competency-based and industry-driven, and that progressive implementation be accelerated so that a substantial amount of training is competency-based by 1995. The principles of having industry-driven competency based training are depicted graphically in Figure 2.1 on page 27 of the report. This has been a recurring theme since 1987. On the other hand, the report seeks that training be broad, non-Taylorist and attract credit in school and university courses.

What does not seem to be recognised is that there are legitimate educational concerns outside of those held within industry - concerns about such matters as ethics, the arts, the environment, life and living skills, scholarship, to name just some. And there is no provision for these and other curricular concerns to be addressed. The very emphasis on demonstrable "outcomes" to the "standards required in industry" may continue to jeopardise such goals as credit transfer.

The recommendation that entry to, and credit in, university courses be competency-based may have far-reaching implications.

The processes depicted in Figure 2.1 of the report seem to be centralist, bureaucratic, expensive and subject to rigidity. What is the educational opportunity cost of deploying resources in this way? As Stevenson (1992) points out, the centralised (fidelity or programmed (Fullan, 1981)) approach to curriculum design and implementation ignores the literature about teacher reluctance to implement curricula "invented elsewhere".

Competency-Based Vocational Certificate System

The linking of Certificates to the Australian Standards Framework Levels 1-4 is problematic. Levels 1 and 2 are especially devoid of requirements for conceptual understanding and independent thinking - a strange situation in a changing and increasingly technological society. It is therefore important that the recommendation in the Report that these levels be re-defined is adopted, especially if credentials are linked to these levels.

Re-definition of the National Training Board's concept of competence, to acknowledge and accommodate, more fully, conceptual understanding and thinking processes would also help.

Targets for Participation of Young People in Post-Compulsory Education and Training

The Finn targets have been modified to be more achievable. Nevertheless, the targets still seem to be low in potential economic and educational impact in that the predominate emphasis is on ASF Levels 1, 2 and to some extent 3. One would expect a more balanced set of targets across all levels, including qualifications at undergraduate and post-graduate levels. One desirable addition is the target of gender equity in overall rates and levels of participation.

Common Framework for Vocational Certificate Training

The equations between Years 11 and 12 and ASF Levels 1, 2 and 3 seem not to recognise adequately the education provided in Years 11 and 12. To suggest that Year 12, including work experience or an additional 3 months of structure work experience would bring students only up to Level 1 seems very unambitious. It is hard to imagine why at least Level 2 and parts of Level 3 cannot be achieved in this time. Why does the Council seem to be pessimistic about the extent

of vocational development which is possible in schools and in cooperative arrangement among schools, TAFE and other providers?

Delivery, Integrated Networks, Open Training Market

The proposed separation of Years 11 and 12 from the compulsory years of education, and cooperative arrangements among a variety of providers, may have implications for the nature and range of courses offered in these settings, and their relationships with university studies.

Access and Equity

There are welcome advances in provision for greater equity in anticipation. There are also implications for the support universities will need to provide for ATSI and NESB students moving from vocational education into universities.

The Mayer Committee

The Mayer Committee was established by the Australian Education Council (AEC) and the Ministers of Vocational Education, Employment and Training (MOVEET) to undertake further work on the employment-related key competencies concept of the Finn (1991) Report. In March, the Committee released a discussion paper (Mayer 1992a), which incidentally included the key competence category Creativity (including the arts) and this was followed, in May, by a further proposal for discussion (Mayer, 1992b) (which returned to the original key competency areas outlined in the Finn report.). Following the current discussion process, the full report is expected to be released, soon.

Definition of competence

From a cognitive perspective, a major achievement of the Mayer Committee (Mayer, 1992b) has been its ability to broaden the concept of competence. It recognises and asserts that "performance is underpinned not only by skill but also by knowledge and understanding, and that competence involves both the ability to perform in a given context and the capacity to transfer knowledge and skills to new tasks and situations" (p 4). It regards competencies as "mindful, thoughtful capabilities" (p 5). The economic assumptions and the reductive approach of determining attributes needed in education, solely through consideration of "employment-related key competences", is unchallenged by the Committee. However, the Committee is careful to point out the key competences are but one concern of education.

Establishment of key competency strands

The Committee has derived, from the Key Areas of Competence (Finn, 1991), **Key Competency Strands** which are general descriptions of competencies which are essential for effective participation in work and other social settings. They are not disciplines or subjects, but ways in which knowledge and skill are applied in the work place. They are defined as follows:

Collecting, analysing and organising ideas and information - processes for gathering, evaluating and presenting ideas and information for a range of purposes.

Expressing ideas and information- capacity to use a range of forms of communication, oral, written, and graphic to communicate ideas and information effectively to others.

Planning and organising activities - planning, organisation and self-management, including the capacity to complete a task, with some degree of independence, monitoring one's own performance and ensuring effective communication, reporting and recording of process and outcomes.

Working with others and in teams - processes of working with others and working in teams, including setting common goals, deciding on the allocation of tasks, monitoring achievement of the goals and checking the quality of the final product.

Using mathematical ideas and techniques - capacity to select, apply and use mathematical ideas and techniques to complete tasks in a wide range of contexts.

Solving problems - problem solving as a process, defined broadly to include identifying and framing the nature of problems and devising suitable strategies of response.

Using technology - capacity to use technological processes, systems, equipment and materials, and the capacity to transfer knowledge and skills to new situations.

The strands assume a foundation of knowledge, skills and understanding which the Committee believes should be made explicit. For example, the National Goals for Australian Schools and the National Statement on Mathematics in Australian Schools has been referenced by the Committee in stating the foundation for Using Mathematical Ideas and Techniques as including:

the capacity to read, write and say whole numbers of any practical size, decimal fractions which occur in context, simple common fractions in regular use; use these numbers to count and order and to make an appropriate selection from addition, subtraction, multiplication and division for dealing with everyday arithmetic problems involving whole numbers, money and measures; interpret percentages and produce simple equivalence's; use reliable but not necessarily standard methods to ensure necessary degrees of accuracy; make efficient use of a calculator for performing required computations; use basic measuring equipment and the standard metric units of length mass and liquid volume (capacity) and of area and volume; use familiar things as reference points for making estimates; read both analogue and digital clocks, make reasonable estimates of durations of time, and work with and produce timetable and calendars; recognise basic geometrical shapes, make simple models and plans, pay some attention to scale and use common conventions for interpreting everyday maps and diagrams of three-dimensional shapes; and extract numerical information from tables and bar graphs and interpret information provided in averages and simple table, bar graphs and diagrams.

Table 3: Relationships among Key Competency Strands and Key Areas of Competence (Mayer, 1992b, p 10)

KEY COMPETENCY STRAND	KEY AREA OF COMPETENCE					
	Language and Communication	Using Mathematics	Scientific & Technological Understanding	Cultural Understanding	Problem Solving	Personal and Inter-personal
Collecting analysing and organising ideas and information	***	*	*	**	**	**
Expressing ideas and information	***	*	*	**	**	**
Planning and organising activities	**	*	*	**	**	***
Working with others and in teams	**	*	*	**	**	***
Using mathematical ideas and techniques	**	***	*	**	**	**
Solving problems	**	*	*	**	***	**
Using technology	**	*	***	**	**	**

*** Strand is based on application of knowledge, skills and understanding drawn from the Key Area

** Strand also involves application of knowledge, skills and understanding drawn from the Key Area

* Strand may involve application of knowledge, skills and understanding of Key Area, depending on context

Relationships among key areas of competence and key competency strands

There is not a simple one-to-one relationship between the **Key Areas of Competency** and the **Key Strands**. The relationships, as seen by the Committee, are summarised in Table 3. It regards four of the Key Areas (Language and Communication, Using Mathematics, Problem Solving, and Personal and Interpersonal) as comprising knowledge, skill and understanding which are applied across all Key Strands. On the other hand, it regards Cultural Understanding and Scientific and Technological Understanding as bodies of knowledge which are essential foundations.

Performance levels

The Committee has established three levels of performance for each of the Key Strands, where Performance Level 1 relates to Australian Standards Framework Level 1, but there is no fixed relationship for other levels. The Committee believes that, by the end of Year 12 or its equivalent, a significant proportion of young people will have achieved Level 3 in some, if not all Key Strands. The performance levels are summarised in Table 4

Table 4 Key Competency Strands and Performance Levels (Mayer, 1992, p 44)

KEY COMPETENCY STRAND	PERFORMANCE LEVELS		
	<i>Performance Level 1</i>	<i>Performance Level 2</i>	<i>Performance Level 3</i>
Collecting analysing and organising ideas and information	Access and record pieces of information from single source	Access, select and organise information from more than one source	Access, evaluate and organise information from a range of sources
Expressing ideas and information	Express routine ideas and information in familiar situations	Express complex ideas and information in familiar situations	Express complex ideas and information in unpredictable or unfamiliar situations
Planning and organising activities	Plan and organise a routine activity under supervision	With guidance, plan and organise a complex activity	Initiate, perform and evaluate a complex activity independently
Working with others and in teams	Work with others to undertake familiar activities	Help formulate and achieve group goals	Collaborate with others to complete complex activities
Using Mathematical Ideas and Techniques	Use mathematical ideas and techniques for completing simple tasks in familiar situations	Select and use mathematical ideas and techniques for completing complex tasks	Evaluate, adapt and use mathematical ideas and techniques in completing tasks
Solving Problems	Solve routine problems with minimal supervision or tackle exploratory problems with close supervision	Solve routine problems without supervision and exploratory problems with guidance	Implement a systematic approach to the solving of complex problems and explain processes used
Using technology	Reproduce or present a basic report or service	Construct, organise or operate products or services	Design or tailor products or services

Table 5 : Factors used to separate levels of performance by strand(modified from Mayer, 1992b)

Collecting analysing and organising ideas and information	Expressing ideas and information	Planning and organising activities	Working with others and in teams	Using mathematical ideas and techniques	Solving Problems	Using technology
specificity of purpose for which information is collected	Degree of guidance	Responsibility taken or level of supervision or guidance	Level of involvement	Extent of supervision	Degree of supervision or guidance	Degree of independence, based on level of supervision and assistance
Number of sources of information	Degree of familiarity with the situation or person(s)	Extent of planning required	Time over which sustained	Familiarity with situation and needed ideas and techniques		Structure provided, including extent outcomes are pre-determined
Amount of variety in kinds of information gathered	Variety and level of sophistication of ideas or information		Degree operating procedures and relationships already established	Number of variables and sources of information		
Range and sophistication of techniques required to analyse, interpret & organise information	Expertise required for selection of ideas and information	Number & complexity of developments requiring judgment Responsibility for evaluation of outcomes	Complexity of activity	Degree of interaction with wider systems	Nature of problem - simple to complex; routine to exploratory	Complexity of activity, based on degree of interaction of activity elements with broader systems, projects or tasks and number and arrangement of elements specific to the activity
		Extent of innovation required		Extent of judgment, level of explanation and justification required	Level of control over processes used to solve problems	Extent of responsibility for decision-making and judgment

Discussion and Implications of the Mayer Report

Extending the notion of competence

As it has been indicated, the Mayer Committee is responsible for a significant advance in the concept of competence. The Committee takes an explicit cognitive view of competence as opposed to the neo-behaviourist view implicit in earlier governmental discourse. It recognises a role for thinking, it is explicit about the kinds of knowledge and understanding required in the work place and it asserts the need to develop the ability to transfer knowledge and skill to new situations. Coping autonomously with problems, unfamiliarity, variety and technology pervade the Key competency Strands. In addition, the Committee has lent weight to the need to revise the almost robotic Levels 1 and 2 of the Australian Standards Framework.

Areas of Key competence

However, the Mayer Committee has not been successful in extending the list of Key Competences. There is still little or no attention to such matters as ethics, concern for the environment, home and household skills, the arts, human relationships, and so on. The matrix is concerned solely with utilitarian goals of short term relevance to employment in an economy, evaluated in terms of classical indicators of economic growth. Rather than confronting the singular nature of the concerns addressed in the Key Areas of Competence concept, the Committee appears to have distanced general education as a whole from the Competences.

As far as the Arts are concerned the inclusion of Creativity(Including the Arts) as an additional area of Key Competency was included in the first discussion paper (Mayer 1992a) after much lobbying by QAAE ASME (Qld) and many other arts bodies. While ASME (Qld) together with QAAE were delighted by this inclusion, both the QAAE and ASME (Qld) responded at the Mayer Committee's invitation, to this discussion paper. Essentially it was argued that creativity or any of the other key competency areas in which the arts may be identified, did not necessarily require artistic or aesthetic awareness and we requested that this be renamed aesthetic understanding(Gifford 1992). In line with the criteria for defining characteristics of key areas of employment -related competence, it was argued that aesthetic understanding: is essential for preparation of employment; equips individuals to participate in a wide range of social settings, including workplaces; is generic to the kinds of work and work organisations involved in the range of occupations within industry rather than occupation of or industry specific; is able to be taught and is conceptually coherent embodying a range of knowledge, skills and understandings and a range of complexity; and that the knowledge, skills and understandings are also amenable to assessment.

Despite the intense advocacy from Arts interest groups the second discussion paper (Mayer 1992) dropped the category Creativity (Including the Arts) and returned to the initial six areas of Key Competencies proposed in the Finn Report. At the invitation of the Mayer Committee ASME (Qld) responded once again arguing the importance of aesthetic awareness to both general and aesthetic education, why applying aesthetic awareness is employment related and demonstrating how the application of aesthetic awareness could be applied to the seven competency strands (Gifford and Davis 1992)(Appendix 1).

The key competency strands

The seven generic strands identified by the Mayer Committee, whilst not directly addressing the central goals of arts education, are nevertheless capable of incorporating the notions of creativity and the application of aesthetic awareness. Each of the competency strands is capable of involving activities which demand a high level of proficiency in the arts. It is also clear that since the strands are not mutually exclusive, it may not be essential to incorporate a specific competency strand that specifically addresses aesthetic understanding and/or creativity. However, as this area obviously needs to be addressed in some form, it would seem that an appropriate place for this would be within the performance levels.

Performance Levels

While each of the performance levels appear to represent 'levels of difficulty' they do not seem to have a coherent underlying theoretical base. For example, four variables can be readily identified which appear to be included in a non-systematic fashion. They are as follows:

1. **Level of guidance - degree of supervision.** Some tasks appear to be defined as more difficult at a higher performance level because they have less supervision.
2. **Level of complexity - degree of difficulty.** There appears to be little or no rationale for determination of the order in which skills are acquired or applied in any other than the most basic contexts.
3. **Familiarity with contexts and tasks.** Familiarity /unfamiliarity are not adequate descriptors of contextual factors. There appears to be a limited recognition of the principles underlying the transfer of learning. Tasks vary as the context varies, hence familiarity is dependent upon both the task and the context within which it is set.
4. **Purpose** - Exploratory processes and intrinsic motivation need to be taken into account. The emphasis on product to the exclusion of the processes and explorations required to produce the product would tend to inhibit experimentation, creativity and innovation.

The point being made here is that there is clearly a need to develop a more rigorous, systematic and empirically sound set of variables used in the construction of the matrix of performance levels (as indicated on p.44). It is simply untenable, we feel, to have such a gratuitously selected and applied set of criteria at the heart of the performance assessment. It renders the matrix senseless and opens the way for substantial invalidities in its application. The Committee needs to take on the difficult work of determining a publicly defensible set of criteria concerning increasing levels of performance based on some principled understandings of task demands in context. As it stands, this gratuitous sense of 'levels' is nothing that a task-analyst of any persuasion (psychological, human-factors ethnographic, sociolinguistic) would recognise, looking instead like a set of 'ideas' thought up 'on the day' If evaluation of these competency strands is to be at all effective, then more obvious consistency across the matrix is essential. The performance level indicators must also be flexible enough to take into account the variety of contexts in which they might be applied (Gifford and Freebody 1992).

Performance levels and the arts

Having established that the strands are not in need of expansion to include one specifically related to the arts and that the performance levels are in need of revision, it is suggested that part of this development and revision would involve the inclusion of an aesthetic dimension . Aesthetic understanding is relevant to the work place. Intuitive thinking, creativity imaginativeness, artistic expression, and original thought are vital competencies essential to 'skilling' a "clever country's" workforce.

This would need to be incorporated as a part of the descriptive statement for each performance level of the key competencies. The highest performance levels should reflect a degree of aesthetic awareness and accomplishment. It would also be necessary to take account of the fact that simple and familiar tasks can still be carried out with a high level of aesthetic understanding. At low performance levels where the tasks are described as very simple mechanical sub-skills, the aesthetic dimension is often not involved in the act of carrying out the task. At median levels, if the task is defined at an appropriate level of complexity and a range of variables begin to fall under the control of the performer, the act of carrying out the task can be described in terms which carry an aesthetic connotation. At high levels it could be expected that aesthetic component will become more significant (Gifford and Freebody 1992).

Criteria for each performance level

An interesting feature of the differentiation into levels is the set of criteria used for each strand. These are given in Table 5. The frequent use of such ideas as complexity, familiarity, supervision, variety, and control suggests that an underlying characteristic of differences among levels is differences in the requirement to solve problems, independently. The relationships, then, among the levels can be analysed in terms of differences in the kinds of cognitive structures needed for expertise. This is a welcome improvement on previous terminology (e.g. The National Training Board, 1991) which focused almost exclusively on behaviour. A basic question, however, is whether such a differentiation in terms of cognitive structures is sustainable in terms of the needs of the work placed and defensible educationally. Put another way, one can analyse the likelihood of widespread and sustainable employment in occupations where there is little need for dealing with novelty, change and problems.

Evaluation and Assessment

The Committee's work will provide a mechanism for measuring and comparing student abilities in the Key Competency Strands, in schools, colleges and the work place. It may help to generalise vocational courses offered in colleges and the work place. That is, any specificity in vocational education and training may be complemented with more generalisable attributes. In schools, there may be pressure to focus more on the strands. This may result in a skewing of curricula towards content designated as employment-related.

State accrediting authorities for school and vocational education curricula will need to address the relationships between the Key Strands and current accreditation practices. For instance, what will be the relationships between the Core Skills Tests used in Student Education Profiles in Queensland and achievements at various performance levels in the Key Strands? The question may be asked if achievement at different Performance Levels in the Key Strands will predict performance in a university course?.

SOME IMPLICATIONS

Some of the implications of these reports are currently being felt extensively in the vocational education and training sector. The major current development is the agreement between all ministers for vocational education, employment and training (MOVEET) to establish a national grid for Australia-wide recognition of state-accredited vocational courses offered by TAFE colleges, private providers and industry. Registration of courses on this grid is conditional on such requirements as documentation courses in competency-based training (CBT) terminology, adoption of the principles for Recognition of Prior Learning (RPL) and utilisation of agreed principles of assessment.

At the national economic level, the irony of the apparent mismatch between the government's economic agenda and the convergent education which will result from Competency Based Training also deserves attention. For vocational education, there are implications for the extent of conceptual understanding and procedural knowledge developed in vocational curricula and the reproduction of characteristics of contemporary work places and emphases in industry.

Other questions relate to the effects on school curricula. For instance, will school curricula be expressed in competency-based terms? How will the wider roles of schools be affected by a credentialling system which recognises competences? Certainly, there is concern within the Schools Council about this and about the effects it could have on the agreed National Goals of Schools.

However, implications may be felt more widely than this. There is considerable debate about the range of competences and how they should be expressed to cover their development through

upper secondary schooling and into universities. Indeed, the President of the Australian Primary Principals' Association (Plath, 1992) perceives clear implications even for primary education.

In addition, there are already examples of modules of state accredited vocational courses being adopted and taught in schools. Teachers may perceive a need for greater assistance in confronting the philosophical and pedagogical issues involved in these changes to curricula.

There are also possible implications for other sectors of education. For instance, will there be pressure on universities to document their courses in competency based terms, especially in order to recognise the relationships between their courses and prior learning? Some university representative, associated with the Register of Awards in Tertiary Education are concerned that this may occur. How, then, will universities respond to these two pressures -documenting their own courses in competency-based terms and recognising competence developed through experience and/or in TAFE and/or through other educational sectors?

There are also substantial research questions relating to issues such as the impact on industry of confining attention to pre-specified outcomes, and the impact on the wider community in terms of the effects of more plural provision and recognition of education and training on the community.

A major challenge facing all levels and facets of education is the current discourse regarding the nature of knowledge and how knowledge is being developed and defined within a competency-based curricula. What we have witnessed over the past five years is a clear example of how power is invested in discourse. Implicit in the question and process of the restructuring of education is how the Federal Government has exercised and imposed its power in part through its portrayal of 'truth' and 'knowledge' about education. The notion of discourse deployed here derives from the work of Foucault (Bell, 1990). Discourse is the key concept in Foucault's theory of the relationship and inter-relationship between power and knowledge. He puts forward the view that knowledge and power are inseparable. Accordingly, throughout such discourses, words and propositions will change their meaning according to their use and the positions held by those who use them. Meanings thus arise not from language but from institutionalised practices, from power relations, and from social positions (Bell, 1990).

In the case of the Federal government's relentless push to change the face of post-compulsory education, it is apparent that it has ordered and combined the word 'knowledge' in particular ways which have excluded and displaced the more conventional and comprehensive view of knowledge. We have now been left with knowledge being defined and used largely in terms of skills. Competency based education has thus reduced the nature of knowledge to 'knowing how'.

In the case of music education we are dealing with more than musical competencies. In fact we can identify four elements of direct musical knowledge and a fifth indirect dimension which deals with propositional or contextual knowledge (Swanwick, 1988). We can have knowledge of the sound materials from which a piece of music is fashioned; our impressions and discriminations of timbre, texture, register, or loudness levels and our practical skills with these materials. There can also be knowledge of expressive character; the general atmosphere or mood of a piece, its dramatic changes of level, or even the specific gesture of a single phrase as we shape music in performance or attend to it as audience. We can also have knowledge of structural relationships; the way expressive gestures relate to other gestures through the reciprocal processes of repetition and contrast, how musical works undergo continual change and in so doing, keep us alert and attentive. Furthermore, there can also be knowledge of the value of music; not simply a prejudice for or against opera or jazz or heavy metal as a genre, but an awareness of the personal and cultural significance of a particular musical encounter.

As far as the future of education in Australia is concerned there is more to be lost than just words. Discourses are constructed through struggle, meanings are gained or lost through struggles in which what is at stake is ultimately a lot more than words or discourses (Bell, 1990).

In the case of music education, and the arts in general, clearly the application of these different aspects of knowledge does not accommodate the Government's discourse on the nature of knowledge. I believe that unless music educators and educators in general in Australia engage more frequently and vigorously in the current discourses on education, the arts will indeed become frills. After the lapse of two thousand years, the greatness of a country or civilisation is measured not by its goods and services tax, nor by its export industries nor by its balance of payments. It is measured by its contribution to philosophy, art, architecture, education and literature. Hopefully, Australia will be remembered in this way and not as the so called 'clever' country who produced a nation of dills?

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APPENDIX 1

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Dear Ann

The following is a response by the Australian Society of Education (ASME), Queensland Chapter, to the Mayer Committee Discussion Document: *Employment Related Key Competencies: A Proposal for Consultation*.

Introduction

While we recognise that the focus of the document is on employment-related education and not on general education, there is a definite need to situate the Mayer Report and employment-related competencies within the wider educational and societal context.

- * If competencies are generic and transferable, then should there be a different set of competencies for general education and vocational education?
- * What is being excluded from these vocational competencies?
- * Are the strands relevant only to a general education, or are they aspects that have relevance to a vocational education but which have not been valued in this domain?

Likewise, the defining of "generic" competencies excludes and devalues specific competencies which are important to many work-related contexts. While the competency definition may be broad, the subsequent strands' descriptions, criteria and examples do not look at sensitivities, dispositions, attitudes, the affective domain, and other important qualitative aspects of work. ASME would prefer a separate competency strand relating to aesthetic awareness but we understand this may not be possible and therefore believe it is imperative that it be incorporated into the existing strands.

The importance of aesthetic awareness to both general and vocational education

The arts are, and always have been, essential for developing and sustaining mind together with other forms of representation, including language. Piaget's explanation of the "intelligence of situations" (1951) demonstrates that the thinking processes are generic and characterise the arts and aesthetic awareness, just as much as philosophical discourse, scientific reasoning, or mathematical thinking. Through aesthetic understanding and artistic engagement, the way we "come to know" and develop our ability to "know" (which are the fundamental processes of mind) are similar to other forms of human discourse.

The generic nature of aesthetic understanding operates on a daily basis in both personal and interpersonal relationships, in social settings, as well as in many kinds of work and work organisations, irrespective of specific occupations. Buying a car, building and decorating a house, landscaping a garden all require choices to be made between what is pleasing, beautiful, appropriate, and what is not. Aesthetic or artistic appraisal involves the application of skills, knowledge of contexts, experience, sensitivity and insight to a judgement of the meaning and value of objects or events. It involves the recognition of both structural and expressive elements, the recognition and articulation of what is surprising or striking, what degrees of unity, variety, coherence, or individuality can be observed, the understanding of mood, atmosphere, changing levels of tension and relaxation and a display of feeling and emotion.

Peter Fuller, in the preface to *Living Powers* by Peter Abbs, points out:

The aesthetic dimension of human life extends across a wide-range of human activities; and we ought to regard it as an inalienable human potentiality, as fundamental as the capacity for language. If a society cannot provide a facilitating environment within which the aesthetic potential of all of its members can find appropriate expression, then that society has failed. (p.xiii).

Fuller further quotes Herbert Macuse who, just before he died, also raised his voice against the Philistine consensus. He argued that "renunciation of the aesthetic form is abdication of responsibility. It deprives art of the very form in which it can create the other reality within the established one - the cosmos of hope".

He insisted that the "social function" of art lay solely in its aesthetic dimension, insisting that "the qualities of aesthetic form negate those of the repressive society - the qualities of its life, labor and love". If we relinquish the aesthetic dimension, we are indeed lost. And there is no better place to begin its defence than within the curriculum itself.

Professor David Myers, of the University College of Central Queensland, recently echoed this theme by stating that "after the lapse of a thousand years, the greatness of a civilisation is commonly measured, neither by its goods and services tax, nor by its export industries and its balance of payments. It is measured by its contribution to philosophy, art, architecture, education and literature".

The recognition of the importance of making aesthetic judgements is an important aspect of general education which is relevant to vocational education and which has not been emphasised, included or recognised in this document. The inclusion of this aspect in the strands would not detract from their relevance to employment-related contexts but would broaden their scope and enhance their application to a wider variety of contexts and audiences.

It is stated that the set of key competency strands is intended to embrace competencies of effective participation in employment. They are not intended to encompass the full range of outcomes of general education. If these strands are to guide the future of post-secondary education, the question arises as to where general education stops and vocational education commences. The arts need to be seen as a viable and meaningful part of both for it is reasonably claimed that the arts provide the most effective and obvious way for developing aesthetic awareness. It is through the Arts that the understanding of aesthetic awareness in all aspects of life is developed most fully.

The latest Mayer document needs to define the place of employment-related competencies in relation to general education and the role of work in the total "life" picture. Work will then be seen as one related part of life and not as separate and predominant.

Applying aesthetic awareness in the workforce

Some "thing" or activity can be appreciated not only for its functional efficiency, its usefulness, its completion having met specifications and timelines - but for its "aesthetic" qualities. This focuses primarily on the client/audience response based on their sensory perceptions and the value they place on that perception (for example, what one person finds pleasing others may not and this may also be affected by socio-cultural background).

Aesthetic awareness is often recognised within industry through the component of "design" and is particularly obvious in the area of product design. The role of design within industry as a means of enabling Australia to compete favourably on the international market has been argued time and again. A product may be eminently functional for example, a car "goes", it gets you where you

want efficiently, it has a practical function. However, design elements are criteria that most often influence the consumers' decisions, and manufacturers certainly recognise these as being the key to successful marketing. These aesthetic qualities (design elements) include the colour, the shape, its comfort, how it "feels" on the road.

The element of design can also be seen in many other employment situations, including landscaping, fashion industry, advertising, shop displays, motor vehicle design, architecture, engineering, building; interior decorating, hairdressing, recreation and parks management.

Design is one industry-linked outcome of applying aesthetic judgments but it is by no means the only one. It is important to note here that the design aspect has not been extensively incorporated into the current competency strands (even in "Using Technology"), let alone other aesthetic elements.

Applying aesthetic awareness could be argued as an essential competency in that it is an element within many strands that is currently assumed but not discussed. The underlying premise of the Mayer document is that education is aiming to create employable, skilled, creative young people. To become employable at the entry level, the ability to demonstrate aesthetic judgments is paramount (in the way people present themselves, present information and ideas, present products, respond to other ideas, relate to environments) and is relevant to all employment situations. Bricklayers, plumbers, hairdressers, chefs, typists all make aesthetic judgments in the way they present their "products" and this is a matter of more than just "technical accuracy".

Employment within the film, television and radio industry often requires the application of aesthetic understanding. For example, in production and programming. The composition and/or selection of appropriate music and soundtracks requires an awareness of the target audience, the desired and anticipated response to the program (and hence, to the music), and the awareness of contemporary social and cultural trends and the ability to respond to them appropriately.

Similarly in advertising, whether from the perspective of the company or product representative or that of the advertising medium (be it radio or television), decisions requiring the application of aesthetic awareness are necessary in choosing appropriate background music or musical material for a "jingle".

The selection of appropriate background music for use in restaurants and offices and in waiting rooms and reception areas also requires aesthetic judgments to be made.

Within the tourism and hospitality industry, there are numerous examples of situations in which aesthetic judgments are required such as the use of appropriate music in promotional campaigns, in planning the entertainment for the resort, hotel, restaurant and so on, and in the selection and audition of musicians and performers. Displaying aesthetic awareness in such situations requires the employee to make appropriate judgments about standards, to critically appraise, to improve design in response to the audience's/users' sensibilities and tastes, and to respond to aesthetic quality.

ASME strongly supports the statement on p.11 of the document regarding the overlapping of the Key Competency Strands. We believe that many work-related activities in Music and the other arts involve a number of the competency strands. As an illustration of this, we cite an example from the advertising industry.

The decision-making required in the selection of appropriate music to accompany the visual and verbal message (**collecting, analysing and organising ideas and information; expressing ideas and information**) is an exercise in **solving problems**, involving a knowledge and understanding of the product, the intended audience, and a considerable amount of aesthetic judgment. The overall concept of the advertisement requires **planning and organising**. The task also involves

using technology of the media industry, music technology, computers and the like. It also requires **working with others and teams** in order to communicate the product or advertising message. **Solving problems** and **using mathematical ideas and techniques** are evidenced in the decisions concerning the length of time for the advertisement, and the relative time allocations for music, voice over, visuals and so on.

It should also be noted that ASME expresses concern at the seemingly low levels of performance expected for the competency strands. It is assumed that, as these levels are for post-compulsory education, they would build onto performance levels from compulsory schooling. An analysis of the Queensland Year 10 exit levels demonstrates that expected standards far exceed those indicated by the performance levels in the Mayer Report.

Competency can lead to mediocrity. (Who said "competence is the dung hap of mediocrity?"). Allocating performance criteria does not overcome this. It does not help to say (in the terms of Performance Level 3) that a good musician **implements a systematic approach to the solving of complex problems and explains the processes used**. While it is true that musical performance involves problem-solving, (selecting style, developing technique, interpreting intentions, striving for greater development of other conceptual expressions such as nuances of pitch, rhythm, dynamics and so on), this has little to do with the creative spark necessary in an excellent performance.

The revised Mayer Report is too "clinical". The terminology used is also scientifically biased, a consequence of many current attempts to rationalise education. Over-emphasis of a systematic approach to problem-solving can lead to the stultifying of the creative process. There should be some reference to the freedom from rigour which is necessary to promote innovation. This should apply to Science as much as to the Arts. If Fleming, for example, had been more systematically careful and not allowed dust to fall onto his plate of culture, maybe we would never have had penicillin!

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MUSIC TYPES AND TIGER STRIPES : DO LEARNING STYLES MATTER IN MUSIC TEACHING AND LEARNING?

Abstract

Learning style has been demonstrated in the literature to be an important factor in teaching-learning transactions. This paper reports on an investigation of primary teachers and primary music teachers (N=395) preferred learning style using the Personal Style Inventory (Hogan and Champagne, 1983), an adaption of the Myres Briggs Type Inventory (MBTI). Primary pre-service teachers' personal types are identified and classified; the results are compared with similar populations cited in the literature; type differences of primary teachers are related to how they learn in the music context and correlations and associations between primary teachers' MBTI type; their musical achievement and preferred learning environment are reported respectively. Implications for music teaching and learning in schools and in pre-service training are discussed.

Introduction

In recent years, teachers have become aware that students differ greatly in the quality of their experiences and in their preferred learning styles. Some prefer a quieter environment conducive to reflection, while others seem to be able to work in the midst of noise or to the accompaniment of music or some level of background 'hum'.

Since persons with differing cognitive and learning styles will form different patterns of meaning from the same environment, there are important implications for teaching and learning. In teacher training programs, lecturers should not only be aware of the styles of the learners in their groups but also be aware of their own preferred style so that learners with different styles are not disadvantaged by being able to learn in a style incompatible with their own (Brundage and Mackeracher, 1980, 46). Lecturers should also assist students to understand their own styles to maximise learning efficiency and to expand their range of learning strategies (Knowles, 1984, 452). If the lecturer and learner have similar preferred styles, or if the lecturers' are slightly more complex, with the learner willing to adapt to it, a suitable match may be obtained. Conversely, several mismatches could result in learner dissatisfaction, confusion, feelings of threat, and presumably withdrawal (Brundage and Mackeracher, 1980, 46-47).

As learning style is considered to be an important factor in teaching and learning, it was decided to explore this further, in relation to the musical training of primary teachers within the Faculty of Education, Griffith University, Mt Gravatt Campus, Australia. The instrument used to measure preferred learning style was the *Personal Style Inventory* (PSI) a measure of Isabel Myers-Briggs adaption of Jung's personality typology, modified slightly by Hogan and Champagne (1983). A review of the literature using 'Eric Database' on the use of the Myers Briggs Type Inventory (MBTI) in 'relational' studies in education revealed that only one out of ninety-one of these studies was associated with music. This was a study by Burton (1985) with university students in which she investigated the effects of musical accompaniment on visual information processing within and across selected personality groups. The current investigation, therefore, would provide a significant contribution to furthering the knowledge of relationships between personal styles as indicated by the PSI and music education.

There were several objectives in investigating the preferred personal styles of the pre-service teachers. A more general aim was simply the desire to assist students understand their own style so that their learning efficiency could be maximised. This in turn would hopefully help student teachers better understand their own students when in the field.

More specific objectives for administering the PSI were to identify and classify primary pre-service teachers according to their personal types; identify any differences in type in relation to primary teachers' 'major strand' studies, with particular reference to music teaching; compare the results with similar populations cited in the literature; relate type differences of pre-service primary teachers to how they learn and identify any correlations which may exist between behaviour of primary teachers' MBTI Type and musical achievement as measured by Burtenshaw's (1983) *Criterion Referenced Music Tests*. A further objective was to investigate possible associations with personal learning style and students' preferred learning environment (Fraser, 1986).

The Training Program

Students training to be general primary teachers completed a 12 week (3 hours per week) introductory course in music in the second semester of their first year. In addition to studying music curriculum and the theory of music, students divided into groups for practical music making. Assessment included a test on music theory (25%), multiple choice questions covering the music curriculum (25%), and a practical test where students performed individually and in pairs using voice (time names, solfa, and words) and recorder (50%). Three sequential lesson plans also were prepared. A further 12 week course was completed in the second or third year of training. Though similar to the first course, students also performed two music ensembles in small groups, as well as developing and notating a short musical play (10-15 minutes) which they performed in groups in the presence of peers and primary school children. Students who elected to pursue a music major completed seven courses, including the two units described above, a unit in advanced curriculum studies, and four units designed to facilitate the musical development of the individual student.

The Myers-Briggs Type Indicator (MBTI)

The preferred instrument used to measure learning style in this investigation was the *Personal Style Inventory* (PSI), a measure of Isabel Myers-Briggs adaptation of Jung's personality typology, modified slightly from the questionnaire by Hogan and Champagne (1983). (Appendix 1)

As described by Moss (1988), Jung's Psychological Types (Jung, 1921) explained how apparently random behaviour has, in fact, a distinct pattern and order to it. According to Jung, people are born with fundamental tendencies and preferences of personality he called 'types'. He defined four basic mental functions or processes common to all people. Two of these functions were concerned with how people took in information; these he called the Perceiving Functions of Sensation and Intuition. *Sensing* (S) indicated a preference for taking in information by using the senses, while *Intuition* (N) indicated a preference for relying on intuition or 'gut feeling'. Sensing types tended to be earthy, realistic, practical, observant and operated at a steady pace while intuitive types were more idealistic, imaginative, creative, over-committed, and continually looked for meaning.

The other two functions were related to how people judged and evaluated the material gathered by their perceiving functions when making decisions. These he called Judging Function of *Thinking* (T) and *Feeling* (F). This scale measured the preference for making decisions in sequential processing according to quantifiable evidence and logical reasoning or alternatively, in parallel processing mode according to the impact the decisions were likely to have on people in a given situation. As a result, the thinker was more interested in logic, analysis and verifiable conclusions than in empathy, values and personal warmth.

In order to develop a strong personality and ego, it was postulated by Jung that people developed a tendency towards specialization in two of these functions, one from each pair, and a tendency to neglect the other two functions. All four functions were present but there tended to be a pattern in the uses of these functions and this in turn determined our decision making 'type'.

The MBTI differed from Jung's theory in that it scientifically measured what Jung said were fundamental but basically unmeasurable preferences of personality. Myers-Briggs also isolated two further scales from Jung's theoretical structure. These were the Extrovert-Introvert and the Judging - Perceiving scales. *Extroversion* (E) measured the preference for operating in the 'outer world' with external stimuli providing an energy basis for decision making while *Introversion* (I) measured the preference for operating in one's 'inner world' with internal stimuli providing an energy basis for decision making. Extroverts would probably appear to be more active, spontaneous, relaxed, enthusiastic, and like variety while introverts would probably be more reserved, passive, quiet, intense and reflective.

The *Judging* (J) - *Perceiving* (P) scale measured one's need for organization, definite answers and certainty, as opposed to a preference for complexity and chaos. Those using their Judging function (either thinking or feeling) lived in a planned orderly way, working to regulate and control their external world while those who had a preference for Perception when dealing with the outer world (sensing or intuition), liked to live a relaxed, spontaneous and adaptable style. In terms of preference for the two phases of decision making - gathering information and applying and using information, *Peceivers* prefer gathering while Judges prefer using information.

Methodology

The Personal Styles Inventory (PSI) was administered to 395 first, second and third year pre-service primary teachers enrolled in music education courses. These included students undertaking 'extended' or major studies in special education (n = 58); music (n = 24); physical education (n = 17); early childhood education (n = 53) and the remainder were general primary teachers not electing to undertake a 'major' study.

Whereas the full form of the MBTI questionnaire determined typology by asking subjects to select one answer from a series of 126 pairs of questions, the modified version used in this investigation (PSI Appendix 1) used 32 pairs of statements. Respondents allocated five votes between the two statements to indicate their preference and type was determined by scoring their preferences (Appendix 1). According to the scores achieved in this manner, the PSI and MBTI reported an individual's type by four letters which indicated their position on each of the four preferences. The sixteen possible combinations of these four dimensions were called 'type' profiles e.g. INTP, ENFP, ISTJ and so on. The characteristics of these sixteen types have been detailed in a number of publications (Keirse and Bates, 1978; Hogan and Champagne, 1980, 1983; Page, 1987; Dick, 1988; Moss, 1988). A summary of the contributions made by each preference to each type appears in Appendix 2. Of importance is that '... each of us use all our preferences or functions at different times, but not both at once and not, in most cases, with equal confidence and ability. When asked to choose therefore, most people can and do indicate a preference' (Moss, 1988, 3).

Where people read the profile sheets relating to type and state that much of it does not sound like them, it may well be because they have been required to act contrary to their preference as a result of work, marriage, parents, social expectations and so on. That is, their learning may go against their preferences. Preferences are determined by the individual, not the questionnaire as the profiles have been developed from very large samples who have scored similarly on the questionnaire. It should also be noted that the profile descriptions are all positive and basically describe people who are well adjusted in that type. The questionnaire does not measure adjustment in any way so the individual who comes up with a highly different life than that which is typical for their 'type' may well be 'uncomfortable' within that preference. In other words, they may have some personal adjustment problems. It should also be noted that preference does not necessarily mean competence. For instance, a person with a strong T preference may be less capable of rational thinking than a strong F person. Lack of objectivity in decision making has a lot to

do with having the 'thumb on the scale' so to speak when weighing things up. The questionnaire does not measure mental ability, only preference or style of thinking.

In the case of this investigation, there were several reasons for administering the PSI and not the MBTI to pre-service general primary students. Dick (1988, 25) pointed out that though the PSI was not quite as sophisticated as the MBTI, it was self-scored and took about ten minutes to complete and to score. Furthermore, the MBTI had the disadvantage that it was a Category A test, available only to registered psychologists and other accredited people. According to Dick also, self-affirmation was most likely to occur when people were encouraged to diagnose their own style rather than to have to accept the opinion of someone else. Being self-scored, the PSI provided this personalisation. Finally, it was hoped that students would use the PSI constructively with colleagues, family and friends. (The request for further copies by subjects turned out to be overwhelming!)

Several other instruments were administered during the same period. These were the *Music Attitude Questionnaire* (MAQ) (Gifford 1989, 1990 & 1991a) to measure the extent and direction of changes in both pre-service teachers' and first year primary teachers' attitudes towards music and music teaching. These attitudes were explored on a continuing basis through the application of the *Music Teaching Video Observation Questionnaire* (MTVOQ) (Gifford 1991). In order to determine students' musical achievement and correlations with 'musical type', the *Criterion Referenced Music Tests* (CRMT Burtenshaw 1983) were administered to the pre-service sample. A *Music Background Information Questionnaire* (MBIQ) (Gifford, 1989, 1991a) was applied to gain a greater appreciation of the population sample regarding their previous musical experiences while the *College and University Classroom Environment Inventory* (CUCEI) (Fraser, 1986) was administered in an attempt to explain possible causal relationships between musical attitudes and learning. The results of these investigations are reported fully in Gifford (1991a & In press).

Results

Pre-service Primary Teachers and their MBTI Type Preference

Table 1 indicates both the frequencies for the overall learning types of the sample of pre-service primary teachers as well as the sub-groups within this sample. The table shows that these student teachers were predominantly (65.6%) intuitive feeling types with ENFP (29.2%); INFP (14.7%); INFJ (11.2%) and ENFJ (10.5%). Not only was the greater percentage of primary teachers of the ENFP type but it was also the largest grouping for those undertaking major studies in music (M 41.7%); early childhood education (ECE 28.3%) and physical education (PE 35%). Only primary student teachers specializing in special education varied significantly by appearing more introverted with 22.4% being INFP and 15.5% (INFJ) though these too, were strongly represented in the extroverted intuitive types (ENFP 17.2%, ENFJ 15.5%).

Comparison with Career Listings of MBTI Type

A comparison of these results with the career listings compiled from Appendix D of Briggs-Myers and McCaulley, (1985, 261-292) and viewed in Table 2, partly confirmed the 'types' of similar teachers. For example Table 2 indicates that musicians and art/music and drama teachers were predominantly ENFP (16.91% - 19.72%).

Carlyn (1976, 135) analysed answers of 200 pre-service teachers and reported a number of correlation relationships where F was associated with interest in teaching lower grades; N and P were associated with independence and creativity in teaching; E and N were associated with enjoyment of working with students in small groups; while E & F were associated with high commitment to classroom teaching. Briggs-Myers (1985, 133) reported that, in general, extroverts and sensing types outnumbered introverts and intuitives in education but that the proportion of introverts and intuitives increased at higher levels of education.

Relationship between type and musical achievement

Using SPSS-X 'CROSS TABULATIONS' procedure, measures of association between the results of the MBTI and the *Criterion-Referenced Music Tests* (CRMT) (Burtenshaw, 1983) were computed. These results appear in Tables 3 and 4. While the sample is relatively small, both tables indicated much lower results in the *Criterion Music Achievement Tests* in rhythm and melodic perception for ISTP's and ISFJ's. ISTJ's scored poorly in the rhythm achievement tests but better in the tests of melodic perception. While the method of arriving at the achievement level of each type was fairly arbitrary, the results supported those reported in the career listings of the MBTI manual (Briggs-Myers and McCaulley (1985) were 53.97% of teachers of art music and drama and 41.91% musicians/composers were NF types. ENFP, the predominant type in this study both in terms of musicians and primary teachers, scored well in both tests but not as high as some of the other groups. Taken overall, there was insufficient evidence in these results to attribute success in music in terms of the CRMT to personal type. As the two types which did score considerable less in both tests were such a small percentage of the population, it can be concluded that all types are equally capable of achieving success in the musical content of the courses offered at the training institution.

Results of the College and University Classroom Environment Inventory (CUCI)

The results showing the comparison through 2-Tail t-Tests of students' *actual* and *preferred* perceptions of their classroom environment are presented graphically as profiles in Tables 5.1 and 5.2. The highest possible score for each scale was 35. Only the means for the total population for first and second year students are provided. The purpose of the CUCI in this investigation was to compare students' perception of their *actual* and *preferred* environment. Overall, there is little difference between year groups despite some variation among classes. In comparison with the emphasis they perceived as *actually* being present, both first and second year students *preferred* a significantly more positive environment in all the scales assessed. These results were in line with previous research by Fraser (1986, 197) which reported that higher education students preferred a more favourable classroom environment than they perceived as being actually present.

The most obvious discrepancy between students' perception of their preferred and actual environment, was with the scales dealing with satisfaction and personalization. This was evident for both year groups as depicted on the profiles in Table 5.1 and 5.2. From these results, clearly, the music classroom environment could not be described as particularly good. Students preferred greater personalization, involvement, student cohesiveness, task orientation, innovation and a lot more satisfaction and individualization. It has been reported in similar studies with primary and secondary school students, that there was a strong association between student outcomes and their perception of their psychosocial environment (Fraser 1986, Ch. 3).

Discussion

It appears that 'type' makes a natural and predictable difference in learning styles and in student response to teaching methods (Briggs-Myers, 1986, 147). MBTI findings reported in Briggs-Myers (1985, 130-133) indicated a number of investigations dealing with type difference and how students learnt as well as how teachers were intervening to improve learning as a function of type. Keirseay and Bates (1978) also reported on their observations made over some years in this field of research. Lawrence (1987, 38-56) outlined ways of planning instruction to cater for different learning types, especially with assistance from Margaret Morgan's table (Lawrence, 1987 52-53) shown in Appendix 3 which related type to instructional strategies. This table shows the classroom learning styles for each of the 16 types.

The fact that 65.6% of pre-service teachers in this investigation were NF types does have implications for music instruction at the training institution. According to Morgan's table

and in descriptions from Lawrence (1987), the majority of students' learning styles, needs, skills, and methods in this investigation, could be outlined as follows.

The NF (INFP, INFJ, ENFP and ENFJ) would adapt to the traditional classroom with a friendly and warm lecturer. These students need acceptance, care and support, they would enjoy group interaction preferring, small groups to large ones. This type of learner focusses more on people than the abstract, learns best in face to face dialogue, is imaginative and sensitive and active unless turned away by a critical negative climate. Such learning types view exam and assignment results as a personal judgement. While Morgan's table shows different preferences by each of these four groups, overall the learning methods they most preferred were free discussion, role playing, dramatic presentation, dialogue (ask 'who' and 'why' questions) group projects, simulations, case studies and counselling.

A further breakdown of the population sample in terms of their T and F difference is also helpful in understanding their learning needs. Overall, only 10.4% of the sample were T's with 89.3% having F 'needs'. The thinking (T) types need logical order, a sense of mastery and require intellectual achievement more than F's. They also need to endure, to persist and to prevail in things they are committed to. Feeling types need approval and personal support more than they need to achieve, to prevail or to be 'right'. Therefore lecturers should be careful not to emphasize independent, individualization activities as this may cut off F students from their main source of motivation, this being the sense that their work is valued and appreciated. F's want warm acknowledgement of their work, they need to be needed and are turned off by assignments that seem to have no particular value to anyone else but themselves. Feeling types most profit from working together in groups when the task involves helping each other. They also strongly value friendships and would be helpful in leading the class to an improved classroom environment. Most important of all to many F's is the opportunity to work with a friend.

The implications of the learning style preferences of the predominant type at training institution are interesting and relevant to this investigation. The results of a Music Attitude Questionnaire (MAQ) (Gifford 1990, 1991& In Press) given at the same time as the current investigation, indicated that while students perceived their musical skills to have increased marginally throughout their course of training, they valued and enjoyed their music education less. While it has been previously argued that a most likely explanation for this rather alarming outcome has to do with the sort of music curriculum used in the training of these teachers (Gifford 1990, 1991a) the results of the *College and University Classroom Environment Inventory* (CUCEI) (Fraser, 1986) may also be viewed in association with the students' preferred learning style. Pre-service teachers wanted more individualization, personalization and group cohesion than that which existed in their music classes. These needs were consistent with the needs of the predominant type in the sample. While this study has not obtained empirical evidence to indicate correlations between learning style and classroom environment, the implications for the lecturers involved in the training of these primary teachers, and the music major sub-groups in particular are important considerations for future teaching strategies employed in the musical training of general primary teachers.

Conclusion

It is significant to note that first year graduate teachers indicated that their involvement in pre-service music education courses did not fit their own preferred personal style of learning to any great extent ($\bar{X} = 3.90$ using a seven point scale). As the results of the MBTI indicated that the majority of pre-service teachers (65.6%) were of the intuitive / feeling types (NF), it could be postulated that the music courses as presented did not adequately cater for students' preferred style of learning. The fact that students of a NF type need acceptance, care and support; enjoy group interaction; and prefer small groups to large ones, learning best in face-to-face dialogues and free discussion, would indicate that

the large group lectures (60-70 students) may not be the most appropriate mode of teaching. Furthermore, as 89.3% of the sample were 'feeling' types (F) as opposed to 'thinking' types (T) needing personal approval and support; disliking independent activities and preferring more to work together in groups, it would appear that the many hours students spent in isolation practising their music skills (e.g. recorder, solfa, handsigns, time names and so on) and the requirement to demonstrate these skills often on an individual basis and in the practical exam, is directly opposed to the learning needs of the majority of these student teachers.

Because the implementation of the music courses may not be meeting the preferred learning style of these teachers, this may help to explain why the subjects, though demonstrating some improvement in music teaching competence, valued less their musical involvement at the training institution. Furthermore, the results of the *College and University Classroom Environment Inventory* (CUCI) (Fraser 1986) may also be interpreted from the perspective of the student teachers' preferred learning style. Students wanted more opportunities to interact with the lecturer in terms of their personal welfare (Personalization); they wanted more active student participation in terms of class discussions and activities (Involvement); they preferred more, an environment where they would know each other and be helpful and friendly towards each other (Student Cohesiveness); and they wanted a lot more, to be allowed to make decisions and to be treated differently according to ability, interest and rate of working (Individualization). All these scales seem in some way to be bound up with the preferences of the 'F' types and these needs are consistent with the needs of the predominant 'types' in the sample. While this study did not produce empirical evidence to indicate correlations between learning style and classroom environment, the above findings would suggest that the lecturers involved in the training of these primary teachers will need to be more sensitive to course organization and the teaching strategies used in order to meet both the students' preferred learning needs and to align the *actual* music environment more closely with the *preferred* classroom environment.

Coda

This paper has addressed some issues regarding individual differences and learning styles and how these relate to music teaching and learning. Some mental habits are very deep in a person. As Lawrence (1982) points out, trying to change them is like trying to change the stripes on a tiger or like trying to change the grain in a piece of wood. While our typology cannot be changed to its opposite we can strengthen our weaker dimensions and learn to use them better.

'Type' is important to teachers and other professionals concerned with instruction and guidance and is helpful in understanding oneself and other people - it is not just an interesting curiosity. To understand motivation and learning style, 'type' is fundamental and is crucial also in understanding why some instruction works with some students and not with others. I have always thought it best to observe the colour and number of stripes on a tiger's back before teaching it to sing - somehow it has led to a dramatic improvement in the effectiveness of my instruction!

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Table 1 Pre-service Primary Teachers and their MBTI Type Preference Showing Overall Type and Percentages Including 'major studies' sub groups. (PST = Total Pre-service Teachers (n = 395); [M = Music Majors (n = 24); PE = Physical Education Majors (n = 17); ECE = Early Childhood Majors (n = 53); Sp.Ed = Special Education Majors (n = 58).]

		SENSING TYPES						INTUITIVES					
		WITH THINKING			WITH FEELING			WITH FEELING			WITH THINKING		
		I S T J			I S F J			I N F J			I N T J		
		Group	N	%	Group	N	%	Group	N	%	Group	N	%
INTROVERTS	Perceptive	PST	13	3.3	PST	24	6.1	PST	44	11.2	PST	5	1.3
		M	-	-	M	2	8.3	M	45	17.9	M	1	4.2
		ECE	1	1.9	ECE	4	11.3	ECE	5	9.4	ECE	-	-
		PE	-	-	PE	1	5.9	PE	1	5.9	PE	-	-
		Sp.Ed.	1	1.7	Sp.Ed.	3	5.2	Sp.Ed.	9	15.5	Sp.Ed.	-	-
	Judging	PST	7	1.8	PST	16	4.1	PST	58	14.7	PST	4	1.0
EXTROVERTS	Perceptive	M	1	4.2	M	1	4.2	M	1	4.2	M	-	-
		ECE	-	-	ECE	3	5.7	ECE	7	13.2	ECE	-	-
		PE	1	5.9	PE	-	-	PE	1	5.9	PE	-	-
		Sp.Ed.	1	1.7	Sp.Ed.	4	6.9	Sp.Ed.	13	22.4	Sp.Ed.	1	1.7
	Judging	PST	2	0.5	PST	20	5.1	PST	115	29.2	PST	4	1.0
		M	-	-	M	-	-	M	10	41.7	M	-	-
	Perceptive	ECE	-	-	ECE	3	5.7	ECE	15	28.3	ECE	1	1.8
		PE	-	-	PE	-	-	PE	7	35.0	PE	-	-
		Sp.Ed.	-	-	Sp.Ed.	1	1.7	Sp.Ed.	10	17.2	Sp.Ed.	1	1.7
	Judging	PST	2	0.5	PST	33	8.4	PST	42	10.5	PST	4	1.0
		M	-	-	M	3	10.7	M	-	-	M	-	-
		ECE	-	-	ECE	3	5.7	ECE	7	13.2	ECE	1	1.9
		PE	-	-	PE	3	17.6	PE	2	11.8	PE	1	5.9
		Sp.Ed.	1	1.7	Sp.Ed.	3	5.2	Sp.Ed.	9	15.5	Sp.Ed.	1	1.7

Table 2 Types of Populations for Teaching Compiled from Myers-Briggs Career Listings in Appendix D (Briggs-Myers and McCaulley 1985)

I S T J			I S F J			I N F J			I N T J		
Group	N	%	Group	N	%	Group	N	%	Group	N	%
Sp.Ed.	173	8.67	Sp.Ed.	173	9.83	Sp.Ed.	173	6.94	Sp.Ed.	173	6.36
Art/Music/ Drama	213	5.63	Art/Music/ Drama	213	6.10	Art/Music/ Drama	213	9.39	Art/Music/ Drama	213	4.23
Pre-School	100	3.00	Pre-School	100	20.00	Pre-School	213	7.00	Pre-School	213	4.00
Musicians & Composers	136	2.94	Musicians & Composers	136	5.15	Musicians & Composers	136	4.41	Musicians & Composers	136	8.82
Elementary	864	10.70	Elementary	864	17.91	Elementary	864	5.10	Elementary	864	2.11
I S T P			I S F P			I N F P			I N T P		
Group	N	%	Group	N	%	Group	N	%	Group	N	%
Sp.Ed.	173	0.58	Sp.Ed.	173	2.89	Sp.Ed.	173	6.36	Sp.Ed.	173	3.47
Art/Music/ Drama	213	1.88	Art/Music/ Drama	213	3.29	Art/Music/ Drama	213	12.21	Art/Music/ Drama	213	4.69
Pre-School	100	0.00	Pre-School	100	4.00	Pre-School	213	8.00	Pre-School	213	2.00
Musicians & Composers	136	2.21	Musicians & Composers	136	1.47	Musicians & Composers	136	9.56	Musicians & Composers	136	5.15
Elementary	864	1.74	Elementary	864	4.73	Elementary	864	4.60	Elementary	864	1.49
E S T P			E S F P			E N F P			E N T P		
Group	N	%	Group	N	%	Group	N	%	Group	N	%
Sp.Ed.	173	1.16	Sp.Ed.	173	3.47	Sp.Ed.	173	13.29	Sp.Ed.	173	4.05
Art/Music/ Drama	213	0.94	Art/Music/ Drama	213	2.82	Art/Music/ Drama	213	19.72	Art/Music/ Drama	213	3.29
Pre-School	100	0.00	Pre-School	100	8.00	Pre-School	213	12.00	Pre-School	213	1.00
Musicians & Composers	136	2.21	Musicians & Composers	136	4.41	Musicians & Composers	136	16.91	Musicians & Composers	136	5.88
Elementary	864	0.87	Elementary	864	5.72	Elementary	864	10.20	Elementary	864	1.49
E S T J			E S F J			E N F J			E N T J		
Group	N	%	Group	N	%	Group	N	%	Group	N	%
Sp.Ed.	173	8.09	Sp.Ed.	173	10.98	Sp.Ed.	173	5.78	Sp.Ed.	173	8.09
Art/Music/ Drama	213	3.29	Art/Music/ Drama	213	5.16	Art/Music/ Drama	213	12.68	Art/Music/ Drama	213	4.69
Pre-School	100	6.00	Pre-School	100	12.00	Pre-School	213	8.00	Pre-School	213	5.00
Musicians & Composers	136	5.88	Musicians & Composers	136	10.29	Musicians & Composers	136	11.03	Musicians & Composers	136	3.68
Elementary	864	8.46	Elementary	864	12.44	Elementary	864	7.21	Elementary	864	5.22

Table 3. Relationship between type and musical achievement

Results of Cross-tabulation of MBTI and CRMT 1 'Rhythmic Perception' for Items 16 - 23 (\bar{X} for CRMT Rhythm Perception = 18.80) n = 347

Type	Item 16	Item 17	Item 18	Item 19	Item 20	Item 21	Item 22	Item 23	Item 24	Item 25	Item 26	Total 16-26
ISTJ	1 8.3	1 8.3	2 16.7	1 8.3	1 8.3	-	-	2 16.7	1 8.3	-	-	9 58.1
ISTP	-	-	-	1 14.3	-	1 14.3	1 14.3	-	1 14.3	1 14.3	-	5 71.5
ESTP	-	-	-	-	-	-	2 100.0	-	-	-	-	2 100.0
ESTJ	-	-	1 50.0	-	-	-	-	-	-	1 50	-	2 100.0
ISFJ	2 10.5	3 15.8	2 10.5	-	1 5.3	-	1 5.3	2 10.5	1 5.3	2 10.5	-	14 73.7
ISFP	1 8.3	1 8.3	-	3 25.0	1 8.3	2 16.7	1 8.3	-	1 8.3	-	-	10 83.2
ESFP	2 11.8	4 23.5	2 11.8	1 5.9	1 5.9	-	4 23.4	-	-	-	1 5.9	12 88.3
ESFJ	2 6.7	4 13.3	4 13.3	2 6.7	3 10.0	1 3.3	4 13.3	3 10.0	2 6.7	2 6.7	-	27 90.0
INFJ	1 2.5	5 12.5	4 10.0	6 15.0	4 10.0	5 12.5	3 7.5	3 7.5	2 5.0	1 2.5	-	34 85.0
INFP	6 11.5	1 1.9	7 13.5	6 11.5	7 13.5	5 9.6	7 13.5	2 3.8	1 1.9	2 3.8	-	84.5
ENFP	8 7.8	1 1.0	10 9.7	15 14.6	15 14.6	9 8.7	9 8.7	6 5.8	6 5.8	7 6.8	3 2.9	81 86.4
ENFJ	1 2.9	3 8.6	5 14.3	6 17.1	4 11.4	5 14.3	5 14.3	2 5.7	1 2.9	-	-	32 91.5
INTJ	-	1 16.7	-	1 16.7	1 16.7	-	1 16.7	1 16.7	-	-	-	5 83.5
INTP	1 25.0	-	-	-	1 25.0	1 25.0	-	-	-	-	-	3 75.0
ENTP	-	1 33.3	-	-	-	-	1 33.3	-	-	-	-	2 66.6
ENTJ	-	-	2 66.7	-	-	1 33.3	-	-	-	-	-	3 100.0

**Table 4 Hierarchical Results of Cross-tabulation of MBT by CRMT - 'Perception of Melody' Items 11 - 20 (\bar{X} for CRMT Melodic Ability = 13.80)
n = 348**

Type	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Total 11-20
ISTJ	1 8.3	2 16.7	2 16.7	-	3 25.0	1 8.3	2 16.7	-	-	-	11 91.7
ISTP	-	1 14.3	1 14.3	1 14.3	-	2 28.6	-	-	-	-	5 71.5
ESTP	-	-	1 50.0	-	1 50.0	-	-	-	-	-	2 100.0
ESTJ	-	-	-	-	-	-	1 50.0	-	1 50.0	-	2 100.0
ISFJ	-	1 5.3	1 5.3	4 21.1	2 10.5	4 21.1	2 10.5	-	-	2 10.5	16 73.8
ISFP	1 8.3	2 16.7	1 8.3	1 8.3	2 16.7	1 8.3	2 16.7	1 8.3	1 8.3	-	12 100.0
ESFP	-	4 25.0	3 18.8	-	2 12.5	1 6.3	1 6.3	1 6.3	-	-	12 75.2
ESFJ	1 3.3	5 16.7	4 13.3	8 26.7	3 10.0	3 10.0	3 10.0	2 6.7	-	-	29 96.7
INFJ	2 5.0	4 10.0	8 20.0	3 7.5	6 15.0	4 10.0	1 2.5	1 2.5	3 7.5	-	30 80.0
INFP	4 7.5	10 18.9	10 18.9	5 9.4	9 17.0	6 11.3	2 3.8	-	2 3.8	-	44 90.6
ENFP	5 4.8	18 17.3	9 8.7	8 7.7	18 17.3	12 11.5	4 5.8	9 8.7	4 3.8	4 3.8	93 89.4
ENFJ	5 14.3	2 5.7	6 17.1	3 8.6	3 8.6	3 8.6	8 22.9	1 2.9	1 2.9	-	32 91.6
INTJ	1 16.7	-	1 16.7	1 16.7	2 33.3	-	-	-	-	-	5 83.4
INTP	1 25.0	-	1 25.0	-	1 25.0	-	1 25.0	-	-	-	4 100.0
ENTP	1 33.3	-	-	-	-	-	1 33.3	1 33.3	-	-	3 100.0
ENTJ	-	1 33.3	-	1 33.3	1 33.3	-	-	-	-	-	3 100.0

Table 5.1 Mean Score Profiles for Student Actual and Student Preferred Forms of CUCEI for First Year Music Students

n = 166 **Student Preferred** **Student Actual**

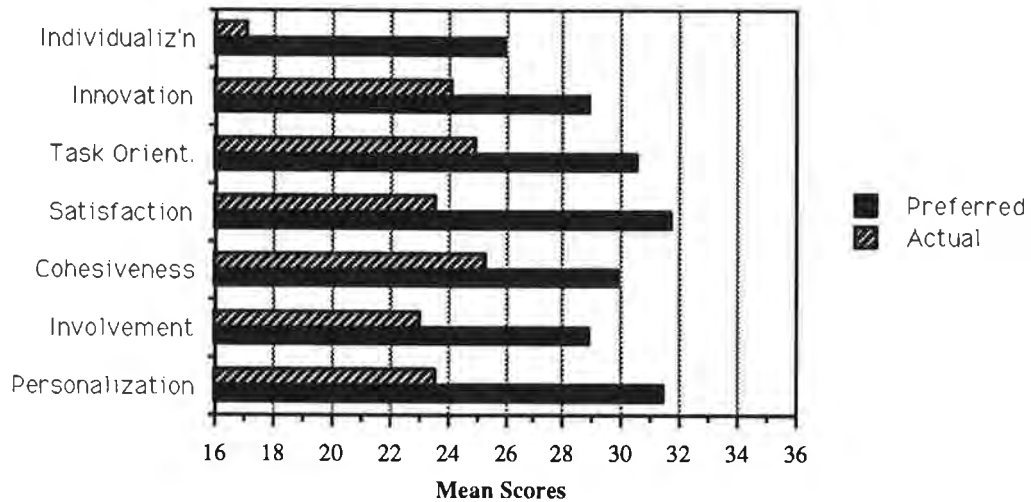
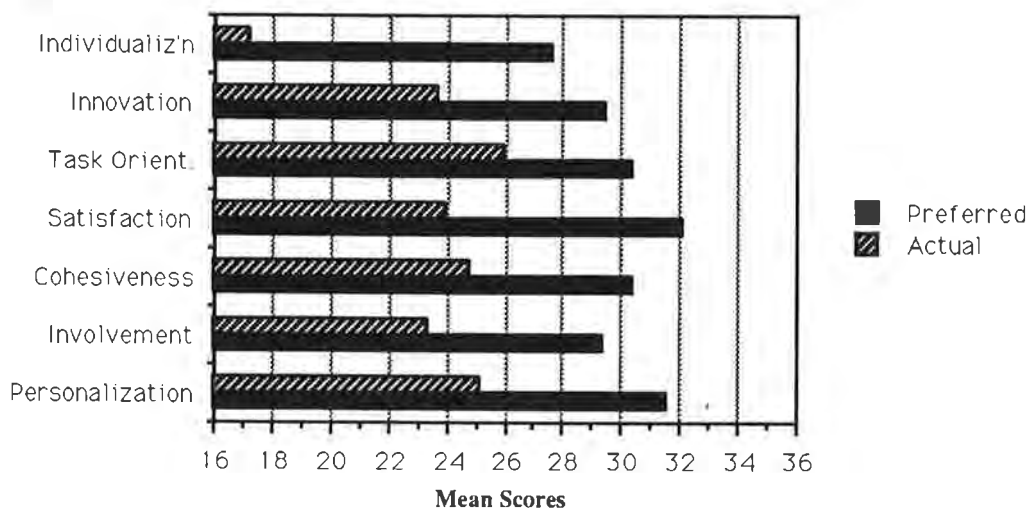


Table 5.2 Mean Score Profiles for Student Actual and Student Preferred Forms of CUCEI for Second Year Music Students

n = 180 **Student Preferred** **Student Actual**



Appendix 1

PERSONAL STYLE INVENTORY R. Craig Hogan & David W. Champagne

A measure of Isobel Myers' adaptation of Jung's personality typology, modified slightly from the questionnaire by Hogan and Champagne in the 1983 Annual Handbook for Group Facilitators.

Instructions Please read! Your score will be more accurate if you do.

Below you will find 32 pairs of statements. Use the following procedure for each pair. Read the two items in the pair. Then divide 5 votes over the two items to reflect your **preference** for them.

- * If you have a strong preference for one item over the other, give 5 votes to your preference and 0 votes to the other.
- * If you have a slight preference for one item, give 4 votes to it and 1 to the other.
- * If you find it hard to decide which item you prefer, give 3 votes to the item you eventually decide to give your preference to, and 2 votes to the other. (Sometimes it will not be easy to choose but choose anyway.)

Note that the total score for any pair of items must be 5.

You are being asked to answer **in terms of your preferences** - not what you usually do, or what you think you should do, or what others expect you to do. As you respond to each pair of items, imagine that both items are just as likely to be successful, both are just as likely to be regarded by others as correct, and both are just as likely to please others.

In other words, if it didn't matter which of the items you chose, which would you **really prefer** to be able to do.

If it doesn't matter which I choose, I prefer.....

- 1a. ____ making decisions after finding out what others think
- 1b. ____ making decisions without having to consult others
- 2a. ____ being called imaginative or intuitive
- 2b. ____ being called factual and accurate
- 3a. ____ being able to make decisions about people (for instance in organizations) based on available data and systematic analysis of situations.
- 3b. ____ being able to make decisions about people (for instance in organizations) based on empathy, feelings, and understanding of their needs and values.
- 4a. ____ allowing commitments to occur if others want to make them
- 4b. ____ pushing for definite commitments to ensure that they are made.
- 5a. ____ frequent quiet, thoughtful time alone
- 5b. ____ frequent active, energetic time with people
- 6a. ____ using methods I know well that are effective to get the job done
- 6b. ____ trying to think of new methods of doing tasks when confronted with them
- 7a. ____ drawing conclusions based on unemotional logic and careful step-by-step analysis
- 7b. ____ drawing conclusions based on what I feel and believe about life and people from past experience
- 8a. ____ being able to avoid making deadlines
- 8b. ____ setting a schedule and sticking to it

- 9a. _____ talking a while and then thinking to myself about a subject
 9b. _____ talking freely for an extended period and thinking to myself at a later time
- 10a. _____ thinking about possibilities
 10b. _____ dealing with actualities
- 11a. _____ being thought of as a thinking person
 11b. _____ being thought of as a feeling person
- 12a. _____ considering every possible angle for a long time before and after making a decision
 12b. _____ getting information that I need, considering it for a while, and then making a fairly quick, firm decision
- 13a. _____ inner thoughts and feelings others cannot see
 13b. _____ activities and occurrences in which others join
- 14a. _____ the abstract or theoretical
 14b. _____ the concrete or real
- 15a. _____ helping others explore their feelings
 15b. _____ helping others make logical decisions
- 16a. _____ change, and keep options open
 16b. _____ predictability, and knowing in advance
- 17a. _____ communicating little of my inner thinking and feelings
 17b. _____ communicating freely of my inner thinking and feelings
- 18a. _____ possible views of the whole
 18b. _____ the factual details available
- 19a. _____ using common sense and convictions to make decisions
 19b. _____ using data, analysis, and reason to make decisions
- 20a. _____ planning ahead based on projections
 20b. _____ planning as necessities arise, just before carrying out the plans
- 21a. _____ meeting new people
 21b. _____ being alone with one or two people I know well
- 22a. _____ ideas
 22b. _____ facts
- 23a. _____ convictions
 23b. _____ verifiable conclusions
- 24a. _____ keeping appointments and notes about commitments notebooks or in appointment books as much as possible
 24b. _____ being able to dispense with the use of appointment books and notebooks most of the time (though I may have to use them sometimes)
- 25a. _____ discussing a new, unconsidered issue at length in a group
 25b. _____ puzzling out issues in my mind, then sharing the results with another person
- 26a. _____ carrying out carefully laid, detailed plans with precision
 26b. _____ designing plans and structures without necessarily carrying them out
- 27a. _____ working and living with logical people

- 27b. ____ working and living with feeling people
- 28a. ____ being free to do things on the spur of the moment
- 28b. ____ knowing well in advance what is to be done
- 29a. ____ being the centre of attention
- 29b. ____ being reserved
- 30a. ____ imagining the nonexistent
- 30b. ____ examining the details of the actual
- 31a. ____ experiencing emotional situations, discussions, films
- 31b. ____ using my ability to analyze situations
- 32a. ____ starting meetings at a prearranged time
- 32b. ____ starting meeting when all are comfortable and ready

PERSONAL STYLE INVENTORY SCORING

Transfer your scores for each item of each pair to the appropriate blanks, noting the pairs of scores are not always written in the same order. **Check that the a and b scores are in the right spaces.** Then total the scores for each of the eight groups of scores. Circle the highest score in each of the 4 pairs.

	1b ____	1a ____	2a ____	2b ____
	5a ____	5b ____	6b ____	6a ____
	9a ____	9b ____	10a ____	10b ____
	13a ____	13b ____	14a ____	14b ____
	17a ____	17b ____	18a ____	18b ____
	21b ____	21a ____	22a ____	22b ____
	25b ____	25a ____	26b ____	26a ____
	29b ____	29a ____	30a ____	30b ____
Total	II ____	IE ____	N ____	S ____
	3a ____	3b ____	4a ____	4b ____
	7a ____	7b ____	8a ____	8b ____
	11a ____	11b ____	12a ____	12b ____
	15b ____	15a ____	16a ____	16b ____
	19b ____	19a ____	20b ____	20a ____
	23b ____	23a ____	24b ____	24a ____
	27a ____	27b ____	28a ____	28b ____
	31b ____	31a ____	32b ____	32a ____
Total	TI ____	FI ____	PI ____	J ____

My MBTI profile is: ____ (write in symbols with highest scores)

Appendix 2 Brief Descriptions of the MBTI Sixteen Types

ENTJ

Intuitive, innovative ORGANIZER; aggressive, analytic, systematic; more tuned to new ideas and possibilities than to people's feelings.

ESTJ

Fact-minded, practical ORGANIZER; aggressive, analytic, systematic, more interested in getting the job done than in people's feelings.

INTP

Inquisitive ANALYZER, reflective, independent, curious, more interested in organizing ideas than situations or people.

ISTP

Practical ANALYZER; values exactness, more interested in organizing data than situations or people; reflective, a cool and curious observer of life.

ESTP

REALISTIC ADAPTER in world of material things; good natured, tolerant, easy going; oriented to practical, first hand experience; highly observant of details of things.

ESFP

REALISTIC ADAPTER in human relationships; friendly and easy with people, highly observant of their feelings and needs; oriented to practical, first hand experience.

ISTJ

Analytical MANAGER OF FACTS AND DETAILS; dependable, decisive, painstaking and systematic; concerned with systems and organization; stable and conservative.

ISFJ

Sympathetic MANAGER OF FACTS AND DETAILS; concerned with people's welfare; dependable, painstaking and systematic; stable and conservative.

(Lawrence, 1987, 15)

ISFP

Observant, loyal HELPER; reflective, realistic, empathic, patient with details, gentle and retiring, shuns disagreements; enjoys the moment.

INFP

Imaginative, independent HELPER; reflective, inquisitive, empathic, loyal to ideals, more interested in possibilities than practicalities.

ESFJ

Practical HARMONIZER and worker-with-people; sociable, orderly, opinioned; conscientious, realistic and well tuned to the here and now.

ENFJ

Imaginative HARMONIZER and worker-with-people; sociable, expressive, orderly, opinioned, conscientious; curious about new ideas and possibilities.

INFJ

People-oriented INNOVATOR of ideas; serious, quietly forceful and persevering; concerned with the common good, with helping others develop.

INTJ

Logical, critical, decisive INNOVATOR of ideas; serious, intent, highly independent, concerned with organization, determined and often stubborn.

ENFP

Warmly enthusiastic PLANNER OF CHANGE; imaginative, individualistic; pursues inspiration with impulsive energy; seeks to understand and inspire others.

ENTP

Inventive, analytical PLANNER OF CHANGE; enthusiastic and independent; pursues inspiration with impulsive energy; seeks to understand and inspire others.

The sixteen types (Table 6.8) are arranged on the page so that the four with the same dominant processes are together in quadrants. The four with 'thinking' dominant are in the upper left quadrant, the four with 'feeling' dominant are in the upper right; the four with 'sensing' dominant are in the lower left, and the four with 'intuition' dominant are in the lower right. In this way the types show opposites across from each other with all four letters being different. Excellent descriptions of these types can also be found in Keirsey and Bates (1978); Briggs-Myers (1985); and Briggs-Myers and McCaulley (1986).

RELATING TYPE TO INSTRUCTIONAL STRATEGIES

ISTJ Linear learner with strong need for order (SJ) Likes direct experience (S) Likes audiovisuals (S); Lectures (I) Enjoys working alone (I) Likes well-defined goals (S) Prefers practical tests (S)	ISFJ Linear learner with strong need for order (SJ) Likes direct experience (S) Likes listening to lectures (I) Likes audiovisuals (S) Enjoys working alone (I) Likes practical tests (S)	INFJ Can be global or linear (NJ) Wants to consider theory first, then applications (N) Enjoys working alone (I) Prefers open-end instruction (N) Needs harmony in group work (F)	INTJ Can be global or linear (NJ) Wants to consider theory first, then applications (N) Enjoys working alone (I) Prefers open-end instruction (N) Good at paper-and-pencil tests (NT)
ISTP Linear learner; needs help in organizing (SP) Likes direct experience (S) Likes lectures, audiovisuals (S) Enjoys working alone (I) Wants logically-structured, efficient materials (IT)	ISFP Linear learner; needs help in organizing (SP) Likes direct experience (S) Needs well-defined goals (S) Needs harmony in group projects (F) Likes audiovisuals, practical tests (S) Enjoys working alone (I) Needs sensitive instructor (IF)	INFP Global learner; may need help in organizing (NP) Likes reading, listening (N) Wants to consider theory first, then applications (N) Needs harmony in group work (F) Prefers open-end instruction (N) Enjoys working alone (I) Likes autonomy (NP)	INTP Global learner; needs help in coming to closure (NP) Likes reading, listening (N) Wants to consider theory first, then applications (N) Good at paper-and-pencil test (NT) Prefers open-end instruction (N) Enjoys working alone (I) Likes autonomy (NP)
ESTP Linear learner; needs help in organizing (SP) Needs to know why before doing something (S) Likes group projects, class reports, team competition (E) Likes direct experience (S) Likes audiovisuals (S) May like lecture (I)	ESFP Linear learner; needs help in organizing (SP) Likes direct experience (S) Likes audiovisuals; practical tests (S) Needs to know why before doing something (S) Likes group projects, team competition, class reports (E) Needs orderly, well defined goals (S)	ENFP Global learner; needs choices and deadlines (NP) Likes seminars (EN) Likes reading if can settle down long enough (EN) Likes harmonious group projects, team competition, class reports (EF) Likes autonomy (NP) Needs help with organizing (NP)	ENTP Global learner; needs choices and deadlines (NP) Likes autonomy (NP) Likes seminars (EN) Likes reading, listening (N) Wants to consider theory, then applications (N) Good at paper-and-pencil tests (NT) Prefers open-end instruction (N)
ESTJ Linear learner with strong need for structure (SJ) Needs to know why before doing something (S) Likes direct experience (S) Likes group projects, class reports, team competition (E) Likes audiovisuals, practical tests (S) May like lecture (I)	ESFJ Linear learner with strong need for structure (SJ) Needs to know why before doing something (S) Needs well-defined goals (S) Values harmonious group projects, team competition, class reports (E) Likes audiovisuals; practical tests (S) Likes direct experience (S)	ENFJ Can be global or linear learner (NJ) Likes seminars (EN) Likes reading if can settle down long enough (ENF) Likes harmonious group projects, class reports (EF) Likes listening (N) Likes pencil-and-paper tests (N) Prefers open end instruction (N) Wants to consider theory, then applications (N)	ENTJ Can be global or linear learner (NJ) Likes seminars (EN) Likes reading if can settle down long enough (EN) Likes group projects, class reports, team competition (E) Likes listening (N) Likes pencil-and-paper tests (N) Prefers open-end instruction (N) Wants to consider theory, then applications (N)

1977 Margaret K. Morgan

There is a new kid on the block, musically speaking. Record stores everywhere bear testimony to the emergence of a major new player on the music market. And, it seems, this player is here to stay, at least for the foreseeable future. Wherever its wares are displayed the record racks overflow, and people come in increasing numbers to partake of its offerings, willingly exchanging their well-earned dollars for the wealth of benefits these offerings are said to provide. I refer of course to the phenomenon of New Age music, a loose collection of musics from many genres that are perceived as sharing a common mood and a common intent. Ridiculed as "yuppie muzak" or "sonic wallpaper" by some, revered as a vehicle towards higher consciousness by others, there is no denying its growing usage and popularity within our urban communities.

What is New Age music? Where did it come from? Can it be legitimately viewed as a distinct musical genre? What implications does it have to music education generally? These are some of the questions this paper seeks to explore.

Towards a Definition

The first thing one notices when trying to research the phenomenon of New Age music is just how slippery the subject is, just how effectively it refuses to be pinned down. This is partly because there is such extreme stylistic diversity within the form itself, partly because the sublime mixes so readily with the ridiculous in the record racks, partly because so many of the claims made about New Age music are either unsubstantiated or simply outrageous, and partly because definitions vary so widely depending on whether you are composer, a publicist, a consumer or a music critic in the medium.

To begin to understand what is meant by New Age music we first need to understand the essence of the New Age movement itself, out of which the music has grown. The New Age Encyclopedia has this definition to offer:

" The New Age Movement is an international social movement which emerged in Western society in the late 1960's and which, during the '80's and '90's, has shown itself to be an important new force in the development of the ever-changing Western culture. As a movement it is quite recent, but it has emerged from older movements and has integrated long-standing ideas and trends in the

West. While freely accepting new perspectives from the East, the movement has deep roots in Western philosophy and life.

The New Age Movement can be defined by its primal experience of transformation. New Agers have either experienced or are seeking a profound personal transformation from an old, unacceptable life to a new exciting future. One prominent model for that transformation is healing, which has given rise to what is possibly the largest identifiable segment of the movement, the holistic health movement. Having experienced a personal transformation, New Agers project the possibility of the transformation not of just a number of additional individuals, but of the culture and of humanity itself. More than a possibility, it is they claim, a present reality; the New Age is emerging in this generation. This affirmation, this hope, that the New Age is imminent gives the movement its name. Healing projected into the larger social context has become a movement to heal the earth, the ideological foundation for the movement's support of peace and ecological activism." (1)

The concept of New Age music arose as professional musicians and composers aligned themselves with New Age ideas and began to express these ideas through their music. The music has its roots in psychedelic rock music, Indian ragas, meditative folk music and to a lesser extent certain forms of contemporary jazz - the sorts of music that were popular with the '60's counterculture. Nowadays, New Age music has become more bland and more mellow, especially to the extent that it is used for meditation and relaxation. Often it is even more "minimal" than before, making widespread use of repeated cycles of gentle, undulating sounds. Some of the major names associated with the emergence of New Age music (not necessarily willingly) are Robert Fripp, Brian Eno, and Mike Oldfield in the U.K.; Vangelis, Jean-Michel Jarre, Klaus Schulze and the group Tangerine Dream in Europe; Phillip Glass, Terry Riley, Steven Halpern and George Deuter in the United States; and Kitaro in Japan. Here in Australia the major exponents of New Age Music are probably Japetus, Ken Davis and Malcolm Harrison.

The efforts of most New Age musicians were at first shunned by the music industry, largely because what they were doing made very little sense in traditional musical terms. These musicians therefore set up their own small recording and distribution businesses and began selling their music directly to the public. As it became clear there was a growing market for their music the major recording companies leapt upon this new bandwagon and began commissioning and promoting New Age music with great enthusiasm. "New Age" has now become a

standard section in music stores, but it can contain almost any kind of music, since every conceivable type of music has by now been claimed as being New Age. The New Age Music Guide, for example, identifies 16 separate subgenres of the form, including East/West, Electronic/Computer, Environmental/Nature, Folk, Jazz/Fusion, Meditation, Indigenous, Pop, Progressive, Solo Instrumental, Sound Health, Space, Traditional, Vocal, and World Music. (2)

In the light of such diversity and generality, New Age music has often been viewed simply as a marketing slogan rather than an actual musical category. As "Billboard" magazine observed on November 1987, "New Age music may be the most startlingly successful non-defined music ever to hit the public consciousness." (3) Music commentator Wesley Van Linda suggests that "New Age music is defined more by the intention of the artist, rather than the style and range of the music [itself]." (4)

Other commentators, however, argue that the form does have identifiable characteristics. According to Wyler, New Age music projects a mood that is "contemplative, mellow, introspective, conducive to meditation, stress reduction, communion with nature, or whatever puts [the listener] in touch with a more peaceful state of being." (5) For the music critic Pareles, New Age music has come to mean "instrumental music that soothes and tinkles. It might use solo piano or guitar, quasi-chamber ensembles, synthesizers, or a mixture of acoustic and electronic instruments. It is usually improvisational, with little structure beyond the performer's whims; now and then it borrows a folk tune or a Bach prelude. Almost invariably the tempos are slow, the harmonies simple, the timbres rich, and the recording quality full-bodied and noiseless." (6)

A Musical Definition

The music psychologist and prominent New Age composer, Steve Halpern, (7) has suggested that New Age music can be defined according to several musical criteria.

First, it is based on harmony and consonance rather than dissonance. This means that many of the favourite voicings found in rock and jazz, such as 7ths and 9ths, or raised 9ths and flattened 5ths, are conspicuously absent. Dissonant harmonies are thought to create tension in the listener, and are thus consciously avoided by new age composers.

Secondly, New Age music is usually melodically indeterminate, avoiding the traditional melodic patterns and sound "hooks" that characterize most classical and popular music. The theory behind this is that, to quote Halpern, "when we eliminate the straitjacket of

predetermined patterns, we open up new ways of organizing and experiencing sound for ourselves."(8)

Thirdly, New Age music is characterized by its lack of rhythmic focus or structure. Aided by new technologies that make it possible to create sounds that can be sustained almost indefinitely, new age compositions seek to evoke a sense of timelessness and spaciousness by avoiding the use of rhythm and pulse. The listener is given few perceptual or contextual clues to anticipate the next beat, and is therefore more able to enter the music on its own terms, in a more fluid and accepting state. Or so the theory goes.

A fourth component of the New Age music paradigm is its particular use of timbre. Because harsh or shrill sounds are thought to increase stress and tension, certain instruments and tones are specifically avoided. The harmonic attacks and overtones of violins, trumpets, electric guitars and synthesized percussion, for example, are considered too disruptive to be useful in the genre, whereas electric piano, harp, flute, bells, and synthesized string ensembles are more suitable in respect of their smooth and soothing timbres. Natural sounds such as birdsong, whalesong, water, wind and rain are also used prolifically in New Age music for timbral reasons as well as for the more obvious messages of earth-connectedness that they convey.

A fifth distinguishing feature of the music to which Halpern draws attention is its use of texture to create a sense of space. By "space" he means primarily the electro-acoustic enhancement of instrumental tones through reverb and echo effects. Such enhancement is not thought of, however, as "special effects" in the usual sense, but is rather an integral part of the music itself. The idea is to simulate the reverberatory properties of spacious sound chambers such as cathedrals and caves to lend a quasi-religious quality to the music.

Another distinctive feature of New Age music is what has been referred to by Greenwald as its "tendency towards dramatic stasis"(9), which is another way of saying that it lacks expressive colour. New Age music rarely employs significant contrasts in mood or dynamics to sustain interest, as does most traditional instrumental music. In a New Age composition a peaceful, quiet mood is typically established from the beginning, and sustained consistently throughout the piece. Any variations are subtle and gradual, which is not to say that they cannot be effective. It would probably be true to say that it is the essentially unchanging expressive nature of the musical text that turns a lot of people off New Age music.

So we can see that, under these criteria, New Age music seems to lack virtually all the characteristics that make traditional music

interesting: recognizable melodies, rhythmic certainty, dynamic contrasts, complex textures and expressive colour. So what kind of music is it?

New Age composers are quick to point out that their music must be approached on different terms to traditional music. For a start it is not necessarily intended to be the prominent focus of a listener's attention: it is meant to be equally adaptable as background or foreground music. Ideally, says Halpern, the music should be "interesting enough to withstand attentive listening yet not conflict with or distract from the primary activity." (10)

This is the philosophy behind so-called "ambient" music, a term coined by New Age music pioneer Brian Eno. Eno has defined "ambience" as "an atmosphere, or a surrounding influence: a tint," explaining that ambient music "must be able to accomodate many levels of listening without enforcing one in particular; it must be as ignorable as it is interesting." (11)

There are echoes here of the rationale underpinning the so-called "aleatory" and "indeterminate" styles of Cage, Varese and others. For these composers, music had become too self-important, too exclusive, and they sought to integrate it back into the general fabric of life, often by incorporating everyday sounds and chance happenings into the overall musical context. In a similar way, new age composers are concerned not to set the music apart from everyday life activities, not to vie for the listener's attention, but rather to enhance the quality of any activities that may be in process. It could be said that, in this respect, New Age music, like aleatory music, is more about *process* than product, more about *being* than doing.

A Mixed Bag

But the question of whether New Age music is really a distinct musical genre or simply a publicist's catchphrase remains a bone of contention. The main sticking-point for critics is the tendency of record distributors and publicists to lump together music of widely differing stylists purely because the overall sound happens to be delicate, quiet and slow. Antilles/New Directions Records manager, Jean-Pierre Weiller-Letourner, whose label features instrumental artists ranging from innovative modern classical musicians and fusionists to jazz and ethnic-based composers, resents the implication that his label's acts could be called New Age.

" 'New Age' has no meaning as a musical term. Many of my records are instrumental, and some of the compositions are quiet. But that doesn't make their jazz less than jazz. Following

that theory, you could take a slow, quiet passage from any of the great classical compositions and play it on a New Age radio station. Will that make it New Age music? Where do you draw the line?" (12)

Weiller-Letourner suggests that New Age music should not be marketed through record stores, it should instead be "sold in pharmacies as a sleep and relaxation aid." (13) International Music Network president Anna Marie Martins suggests that the division in New Age music between artists whose compositions are created as emotionally stimulating interactive art and those whose music more properly belongs in the holistic therapist's lounge is not accounted for by the single term New Age. (14)

This division can be observed quite readily in the New Age record racks in music stores, where the stereotyped works of a host of amateur composers rub shoulders with the works of Phillip Glass, Steve Reich, Erik Satie, Celtic harp music, Indian sitar music, Native American flute music, Japanese shakuhachi music, Gregorian chant, Buddhist chant, music from the Baroque era, and so on and so on. It seems that anything that can possibly pass muster as a New Age composition is immediately conscripted to the cause.

Music as Therapy?

It becomes increasingly evident, then, that an adequate definition of New Age music, if there is one, is not to be found in the area of musicality alone. It seems that we have to look at the question of *application*, that is, the way the music is intended to be used. Here again we have a case of publicists often misrepresenting the intentions of many composers, but we can probably say that amongst composers who identify with the idiom, amongst New Age record distributors and amongst consumers, there is a considerable degree of unanimity over the question of application. A central element of New Age music is its perceived value as a therapeutic agent or healing tool. Journalist Jennifer King has described it as "a tonic for the physical and emotional toil of 20th. century stress," and likened it to music made by primitive societies who recognized music's ability to "harmonize body, mind and spirit" (15). Andrew Watson, manager of New World Productions, the leading Australian New Age label, describes New Age as "music that is designed to activate the relaxation response in listeners . . . and make them more aware of themselves and their potential" (16). The implication here is that the state of consciousness New Age music is designed to evoke is conducive not only to mental relaxation but also to self-knowledge and self-fulfilment. This seemingly contradictory claim lies at the heart of the New Age music philosophy, and is expounded by just about every New Age music aficionado. According to Halpern, for

example, New Age music can "take you out of yourself", yet can offer, as he claims in the next breath, "the opportunity to discover within ourselves our own highest nature"(17). Radio host Steve Dondershine calls New Age music "mind expanding, dream-inducing. You can broaden your thinking listening to this music," he says(18).

The contradiction inherent in these claims for New Age music underlines a basic fallacy of New Age thinking in general. Termed the "pre/trans fallacy" by psychologist Ken Wilber(19), it revolves around the confusion between a pre-personal state of consciousness such as that experienced by the newborn infant, and a genuinely trans-personal state of consciousness such as that experienced by saints and mystics. Whereas the New Agers claim that the music helps them *integrate* body, mind and spirit into a higher and more wholistic awareness of self and world, the greater likelihood is that the experience actually represents a regressive *dissolution* of body, mind and spirit back into a state of primordial fusion with the world, which is actually a state of ignorance. It is the level of consciousness called "protoplasmic" by Piaget, which precedes the construction of a self-sense. So, rather than acting to sharpen the listener's physical, mental and spiritual sensibilities, in reality New Age music may be acting to numb them. And rather than helping raise the listener to a state of wakefulness and self-awareness, it may actually be inviting one to enter a state of slumber and dreaminess, a cocoon of warmth, security and predictability. This is what the psychologist Christopher Lasch means when he refers to a self that, "uncertain of its own outlines", longs to "merge into its environment in blissful union"(20).

In psychoanalytic terms, the desired state is very close to what Freud called the "oceanic feeling", in which the suckling child feels no boundary between its body and that of the mother. Psychoanalytically, New Age music may represent the glorification of the boundlessness the infant feels in this pre-personal state: hence the New age hostility to conflict or divisions of any kind. Promoted as a means of empowering the self, of restoring to individuals their grip on the world, New Age music may actually represent an escape from conflict and developmental challenge. It may be, as Berman has suggested, "a palliative that keeps us from exploring and thinking, that numbs us to bad and good feelings"(21).

The tendency of New Agers to suspend rational judgement is evidenced by many of the other claims made for New Age music in respect of its therapeutic properties. We might briefly list some of these claims, for interest's sake. According to the New Age Music Guide, the music 'possesses anti-noise pollution qualities when used in homes, offices and retail outlets. It aids in mental concentration, . . . inner awareness and 'out of body' travelling"(22). According to Halpern, it can

"deepen and regularize the breath, improve digestion, lower blood pressure, balance the two hemispheres of the brain and enhance learning ability"(23). Watson has a scientific explanation for the learning enhancement properties of New Age music:

"It is unpredictable and therefore confuses the left or rational brain. In doing so it activates the right or perceptive brain which sees in pictures and symbols. The flow of messages along the Corpus Collosum connecting the two hemispheres intensifies, and results in increased creativity, productivity and balance. Tests have shown that a control group of students were able to learn 100 units in a given time frame with no music playing. With rock music playing the same group were only able to absorb 68 units in the same time. With relaxation music playing they were able to assimilate 180 units." (24)

We are unfortunately left guessing as to what these "units" of learning actually are, but somehow the question of learning *quality* appears to be overlooked here. Elsewhere, Watson also makes the claim that New Age music can help strengthen the immune system, even to the point of helping the organism overcome terminal illnesses such as cancer.(25)

To what extent these claims are valid is not the concern of this paper. The point I wish to make is that whenever New Age music is discussed, either by commentators, composers or publicists, reference is always made to the therapeutic properties of the music. New Age music is perceived first and foremost as a healing tool, not as an aesthetic experience. It is a music created to serve non-musical ends - primarily relaxation - and this is why it has managed to find an outlet in places where other types of music have been unable to gain entrance. Such venues may include hospitals, clinics, executive boardrooms, convention centres, mental institutions, learning institutions, holiday resorts and shopping centres.

New Age music is the ultimate "user friendly" music; unless of course, you happen to be one of these unwitting consumers who feels somewhat irritated or oppressed by music that tries so hard to please.

Implications to Music Education

So, finally, what does the phenomenon of New Age music mean for us as music educators?

The first issue I suppose is, like it or not, New Age music has arrived in our urban centres and is steadily infiltrating the consumer

market. Students of all ages are listening to it, whether consciously or unconsciously, and it is up to us to recognize the prevalence of the phenomenon and open up discussion on it in our classrooms. The music needs to be brought consciously to students' attention and examined closely for its musicality and for the myths and assumptions that accompany it. New Age music is not only a musical phenomenon, it is a socio-cultural and psychological one as well, and needs to be considered in all these contexts. Students should be allowed to explore their own responses to the music, and to develop their own judgements through listening to and studying a diverse range of the music. This is particularly important in a genre that offers a forum for increasing numbers of mediocre musicians and imitators of more successful and imaginative composers. As author John Schaefer has observed:

"The market is now so filled with this type of music that really important works have been lost in the crowd of cheap imitationsIt seems as if everyone with a working wall outlet is making electronic music in this vein."(26)

In the classroom, New Age music provides a wonderful opportunity to examine fundamental concepts and assumptions about music. What better way to understand the basic functions of rhythm, melody, dynamics and expression than to use as a reference-point music in which these elements are conspicuously absent? And does their absence in New Age music challenge our basic assumptions as to what music really is?

Opportunities also exist to explore composition in this medium. Synthesizers can be brought into action, and their capacity to sustain sound used as a basis for group improvisation. Many of the tone colours used in New Age music will be found on the synthesizer - string ensembles, pan flutes, choirs and the like - along with special effects like reverb, echo, flange and chorus. Acoustic classroom instruments can be explored also for their timbral suitability - for example, plucked autoharps, metallophones and glockenspiels played with soft beaters, chimes bells, gongs, finger cymbals and recorders - and performance spaces such as gymnasiums and stairwells exploited for their acoustic potential. One of the things that has led me to examine New Age music more closely is the fact that, in composition classes, some students have naturally inclined towards this form of expression.

As far as the therapeutic application of New Age music in the classroom goes, I have serious reservations. It might well be that a judicious dose of palliative music is able to calm a restless class or a distressed student, provide a focus or relax exam nerves, and that an occasional escape from the realities of a high-pressure lifestyle is not

always such a bad thing. And I am not even against the idea of the teacher assuming the role of therapist on appropriate occasions. However, my main misgiving is that a lot of New Age music is too insidious in its relaxing effects. It enters, so to speak, through the back door of consciousness, and tends to anaesthetize more rational functions. This is precisely what it is *meant* to do, of course; this is the secret of its effectiveness. But it seems to me that a therapy that relies for its effectiveness on an uncritical acceptance of incoming stimuli does not sit comfortably with the function of education, which is surely to progressively raise what is unknown into the realm of the known, to nurture awareness rather than numbness or forgetfulness.

And is the outcome of the therapy really as healthy as it is made out to be? I have my doubts. Is there not an element of brainwashing about much New Age music, something of a dehumanizing influence in it? The fact that most of the music is entirely synthesized is of significance here: electronic instruments are the primary sound sources, and, as has been noted by many musicologists, including Manfred Clynes(27) and Dane Rudhyar(28), electronic instruments are very limited in their expressive capabilities. What is lacking are the natural resonances of instruments, the complexities of attack and execution, the real sense of human hands, hearts and minds driving the musical experience. There often remains something alien, remote and mechanistic about the sound of New Age music. In this I am echoing the sentiments of Rudhyar, who, while seeing some validity in the music's attempt "to decondition consciousness, to free it from dependence on classical European forms and the dramatic intensity of Expressionism . . . and to induce much needed mental relaxation," nevertheless asks whether its simplistic repetitiveness is "essentially different from modern advertising techniques and, at the extreme, from simple brain-washing."(29)

Let us not have musical brain-washing in the classroom, let us instead have musical brain-storming. Let us treat the idiom of New Age music seriously and explore it for the learning opportunities it presents.

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THE NEW RIGHT AND ARTS EDUCATION

Kipps Horn

I am a post-world war two baby boomer person . I often consider myself lucky to have been born at a time that allowed me to develop in a Europe tired and saddened by the waste of war but also in a Europe determined to build a place fit to bring up children without the threat of gas-chambers and mass brutalisation perpetrated in the name of nationalism.

I grew up in a social climate variously described as, the New Elizabethan Age, the time of White Hot Technology, the Swinging Sixties, the "You've Never Had It So Good" days, when superficially the world felt good. East was East and West was West, red was bad, white was good and black was a moral dilemma to be swept under the carpet.

There were the usual national and international power games involving so-called 'minor' wars and apparent temporary economic slumps that we were led to believe were the fault of some foreign economic strategy, trade union greed or some such invented ogre. As I became less gullible it came as only a gentle surprise to discover that neither democratic socialist or Conservative parties were really likely to threaten the status quo.

That is, until the 1980's when the spectre of economic rationalism, Thatcherism, and so-called Reaganomics became firmly established. For ten years I saw the policies of what was to become known as the 'new right' unfold. Apart from the unbridled greed, decimation of unionism and decline of old industries and a consequential rise in unemployment with a parallel cut in social security spending, I recall the rhetoric of change. Government, institutions and organisations of all kinds were eager to acknowledge that we had to come to terms with radical changes. The implications of the new technologies were huge and unavoidable and we had , as it were, better change to meet the changes!

British educators were asked to take a fresh look at curricula. They were asked to make them more accountable to the industrial needs of the country. New courses with increased vocational elements were set up under the auspices of the Technical and Vocational

Education Initiatives group. Schools were told to reflect the needs of industry and commerce. Funding to schools was made direct to a board of management. Principals gained increased powers of employment and dismissal. National learning standards were invented along with measurement tests at 7,11,14 and 16.

Three and a half years ago I came to Australia and ever since, it will come as no surprise to you, I keep getting feelings of déjà vu!

But there can be no doubt that the world economic and political context in this short time has changed radically. The collapse of communist systems, the re-emergence of ancient conflicts, and an alarming increase in expressions of nationalism.

I have been centred around music and the arts all my life. For over twenty years I have sought to champion the cause of music education because I believe music-making offers both qualitative and quantitative experience. With colleagues I have recognised that an important part of my job was a continuing advocacy for music in schools and communities. I have even accepted that this advocacy battle would be an on-going fight, but recently I have become more disturbed by the wider context of education as indicated in my opening remarks. It is this economic and political context that forms a large part of the praxis of all educators and hence my attempt to outline my views in this paper.

As a New Australian it is good to hear and see Australians seek increasingly, an independent stature that relates to its geographic and demographic nature instead of following the ways of mother Europe and older brother USA. Having said that I wonder why so much effort is being put into placing Australia into a global context which in practice is still largely defined as Europe and the USA, (the espousers of New Right doctrines and their consequences) when we could be part of a burgeoning South East Asia and the Pacific Rim. However, I digress. Back to music.

No matter what we have argued or demonstrated since the beginning of public education in the West, music has usually been at the bottom of the budget heap when it comes to curriculum priorities and there seems little to suggest that this will change.

It is my contention that an expansion of economic rationalism as espoused by the New Right bodes a threat to the status and very existence of the arts in education. As I have indicated, during the past ten years the economic thinking of the 'New Right' has been increasingly significant. But what is the 'New Right?' What power

does it exert? Are there implications for music and the arts in education if the policies of the New Right become a reality in Australia?

Firstly what is the 'New Right?' Put simply, the New Right consists of a group of neo-Liberals or Conservatives (depending on which country they operate in) whose main political and economic ideology derives from an absolute belief in the rightness of free-enterprise and the market-place as its fundamental bench-mark. Anything that opposes market forces is seen negatively - market is good, government is bad. There are those who would argue that the New Right even sees manifestations of democracy as opposed to market place values since democracy is to do with a collective will which per se opposes the will of the individual and the will of the individual is supposedly paramount to the New Right, although no one has suggested what happens when the individual moves against a market-force!

The New Right has grown and is composed of two rather different strands. There is the revival of liberal political economy, which seeks the abandonment of Keynesianism and any kinds of government intervention; and there is a new kind of populism - the focussing on issues like immigration, crime and punishment, strikes, social security abuse, taxation and bureaucracy... with a new emphasis upon re-establishing free markets and **extending market criteria into new fields.** (Quoted in, Levitas, 1986 p.6)

It is this extending of market criteria into new fields that might concern us as educators.

The New Right claims to base itself on the ideas of the Classical economist, Adam Smith. Hence the Adam Smith Institute was established in the UK in 1979. For those of you seeking greater detail of New Right ideology and policy, look at the mysteriously titled 'Omega project,' which spells out the implications of neo-Liberalism for social policy.

The Institute does not stand alone. To indicate an historical sequencing of significant organisations that have fostered notions of market-value centrality in the UK and USA this century, we might note the formation of the Economic League, 1919, Aims of Industry, 1942, Institute of Economic Affairs, 1957, Centre for Policy Studies, 1974, most of which are corporate business funded Right-wing think tanks.

As Alex Carey points out in The New Right's Australian Fantasy, 1987, the Committee for Economic Development of Australia (C.E.D.A) was the only business funded think-tank in Australia in the late 1970's. In the early 1980's

a C.D.E.A review listed twenty privately funded organisations which have some think-tank role. However, only a few of these have much in common with the modern American model; notably the Business Council;...the Centre for Policy Studies at Monash; the Centre for Independent Studies in Sydney; The Institute for Labour Studies (Flinders) and the Australian Institute for Policy Studies (Perth) (Carey, 1987, p.13)

Carey goes on to note that Hugh Morgan, Managing Director of Western Mining Corporation in 1985, let it be known in an interview in the Sydney Morning Herald that "generous business funding for the Centre for Independent Studies, the Institute for Policy Research and other think-tanks reflected a decision to use them as a means to 'reshape the political agenda' and 'change public opinion' until these matched New Right preferences." (ibid,p.14,1987)

Put like this, I suppose it would be easy to get into fantastic conspiracy theories but we would be foolish to ignore overt and well-established networks of business funded institutions and think-tanks which seek to strengthen market- value criteria in diverse fields of human experience including education.

As a public servant working in the arts field in a tertiary institution where 'full cost accountability' is the cry-word of the day, I cannot help thinking that I am at a disadvantage when I compare my area of work with colleagues in commercial, industrial and technological faculties. For

those entering a competitive market with few goods have little bargaining power, and at the close of business are most unlikely to find they have suddenly joined the upper percentiles in the income groups or indeed improved their relative position in any way. (Schott, 1987,p.51)

A few months ago I was asked by one Australia's leading professors of music how I imagined the future status of university music departments. I replied that if Australia was to follow the lead of Europe and the USA then it was very likely that tertiary music departments would soon only exist through business sponsorship deals. My view reflected my experience of the free-market strategy in the UK, a certain amount of despondency and a large dollop of cynicism. The Professor, not suprisingly, expressed some scepticism. Last week the same person told me of how she had been informed by a federal Liberal member of Parliament that a new portfolio was to be introduced; that of the Minister for Privatisation, and that university departments would soon have to rely heavily on private sponsorship!

During the same discussion I ventured to suggest that unless music educators were able to convince school councils or the proposed new Boards of Management that music was a vital aspect of a general or vocational education, music would soon cease to be part of the main curriculum. It would become a privatised, extra-curriculum choice for those who could afford it.

If, (as has been argued on the ABC's Education Now programme when it took a look at Australian music education in 1991) Australian music education is largely based on vocational, instrumental performance, it makes the task of arguing a peripheral role for music much easier. Others might argue that instrumental and performance skills are the most likely music industry skills to be used by potential music employees and therefore there could be no better argument for reinforcing this type of emphasis in school music given the present industry-related competency climate.

Those of us who have argued that music education is centred in notions of aesthetic education, that it should involve a balance between composition, performance and listening because these areas provide the process environment in which significant learning can take place still have a huge task ahead of us the continuing advocacy battle. We can expect little joy if the Liberal National Coalition education policy is realised. It clearly states "Too much emphasis has been placed on teaching students process at the expense of knowledge. This imbalance must be addressed." (Liberal National Coalition Policy, Education. Giving Students a Chance, 1992, p.12) It seems to me that this statement 'knocks the

stuffing'out of a fundamental value of music experience; that is, process learning. And what of the committees and councils on which we might seek to persuade?

On the proposed schools councils during a Liberal government not more than one third of the council members will be employees of the Department of Education. This seems to limit drastically the role of educators on the councils that determine curriculum objectives, approve budgets, establish charters . It will be that much harder to convince students , parents and administrators that music and the arts in general are a vital part of curricula when they are under pressure to accept that what Australia needs is a turn to the acquisition of prescribed knowledge and vocational skill competencies such as those outlined in the Finn and Mayer reports.

No doubt there will be much reference to the exclusion of 'creativity' or aesthetics from the key competency strands. It comes as some surprise to read that "Creativity does not satisfy the criteria set out in the defining characteristics of a Key Areas of Competence."(Mayer 1992,p. 66)

When we look at the criteria, everyone of them is applicable to learning in the arts.

The discussion paper proposed the following defining characteristics of a Key Area of Competence.

A Key Area of Competence:

- is essential to preparation for employment
- equips individuals to participate effectively in a wide range of social settings, including workplaces
- is generic to the kinds of work and work organisation involved in the range of occupations at entry levels within industry rather than occupation- or industry-specific
- is able to be taught
- is conceptually coherent, embodying a range of knowledge, understanding and skills and a range of complexity
- involves the application of knowledge and skills
- is amenable to credible assessment.

These defining characteristics were generally endorsed in consultation.

Consultation also revealed a wide range of views as to what should constitute the set of key areas. Most strongly expressed was the view that the six areas identified in the Finn Report should constitute the set. Some argued that the Problem Solving and Personal and Interpersonal areas were not Key Areas in their own right but underpinned the others. Some argued for the inclusion of other areas, namely Languages other than English, aesthetic understanding and moral and ethical reasoning.

One can only assume a lack of comprehension about the nature of arts experience on behalf of the Mayer Committee members.

Here are some points made by speakers at the Directions in Education Conference held in Sydney and Melbourne this year, quoted in Directions in Education, No. 6. June 18, 1992.

Laurie Carmichael, Chair of Employment and Skills Formation Council, National Board of Employment, Education and Training:

The competencies addressed in Finn, Mayer and Carmichael are work-related competencies; they are not intended to be all of the competencies which should define the curriculum at the post-compulsory level. He emphasised the importance of the arts.(p.1)

Professor Fenton G Sharpe , member of the Finn Review Committee, previously Director General of the NSW Department of School Education:

...the little word 'ethics' which is so difficult to deal with in the context of employment related competencies...has simply disappeared in all subsequent discussions, including the two Mayor documents. A Skills crisis in Australia, he warned would be bad enough, but a values crisis would be devastating. (Ibid,p.2)

John MIners, President of the Australian Secondary Principals Association:

The sceptic would suggest that the drive towards employment-related competencies is a smokescreen to justify the attempts to increase retention rates in Australia purely to affect unemployment figures.... schools must continue to provide students with additional nourishment in the areas of emotional development, physical development and the aesthetic qualities. (Ibid,p.2)

These last three observations suggest a balance to remarks such as those made by Dr Charles Bowman, Managing Director of BP Australia Ltd.:

As Australia falls further behind other countries in terms of economic competitiveness, business leaders are looking to the education system as the key to reversing this trend...A national approach to education, which is heavily work-related skills biased, would allow business to become more flexible by more effectively using the talents of students joining the workforce.(Ibid, p.3)

Whilst no one could reasonably argue that education should not be concerned with the needs of Australia's economic health, I have yet to be convinced that where business communities and economic advisers of all 'flavours' have failed in the face of conflicting world economic theories and simple greed, the educators will succeed on their behalf.

Try convincing the student who gives up arts in school after year 3 because it seemingly "won't lead to a job" if they are also influenced by Alan Ruby, First Assistant Secretary of Employment, Education and Training and member of the Mayer Committee, when he says

If you are going to have an active economic life (a job? My interpolation) which will be the key to your effective social participation and your family happiness you will need to have year 12 or its equivalent...

Without a presumably successful year 12 in which the student acquires appropriate key competencies, Ruby predicts

...they'll have periods of unemployment,...
and any period of employment they do get
is likely to have one of the following
characteristics: it'll be part time, or shift work,
or itinerant work, seasonal work or casual work.
It will also be poorly paid. (Ibid, p.4)

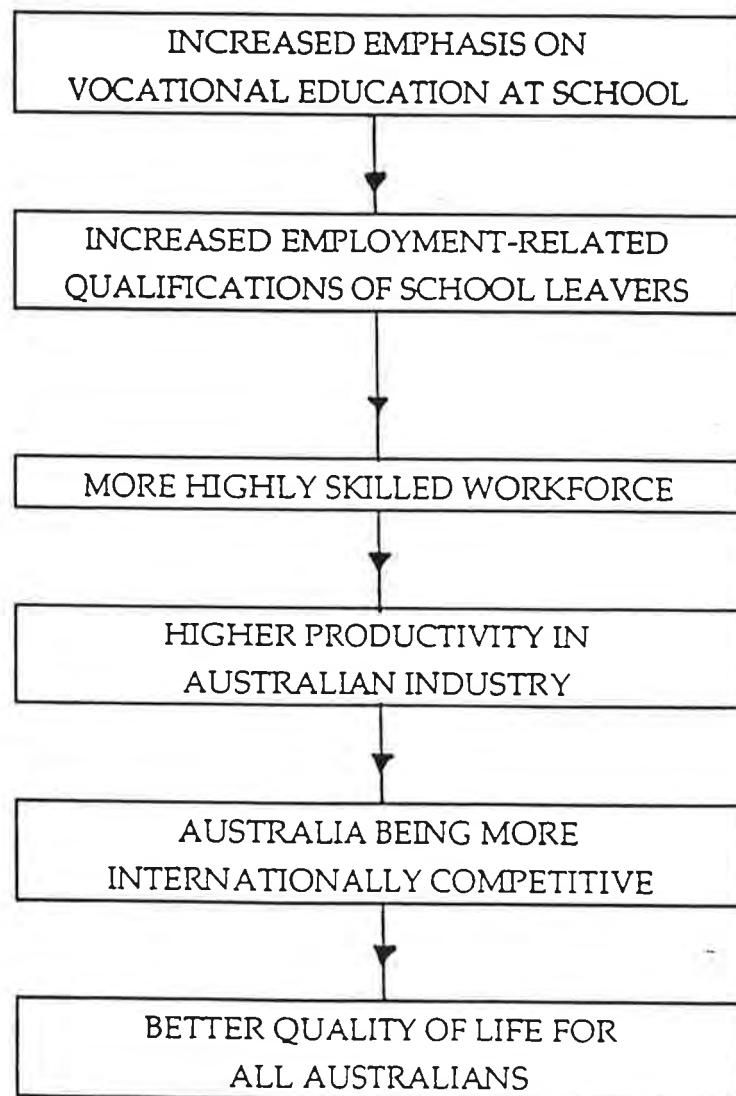
Graham Harrington, Deputy Secretary, Department of Education and The Arts, Tasmania, comments

Influential forces in Australia have convinced the policy makers and resource providers of the veracity of the following

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6. VOCATIONAL CONCERNS

The other area where national policy is dominating educational discussion is that of vocational education. Influential forces in Australia have convinced the policy makers and resource providers of the veracity of the following scenario.



(HARRINGTON, 1992, p. 8)

But who are these "influential forces" and whilst the policy makers might be convinced of the veracity of their argument, are we? Harrington goes on to cite a Davis, (1992) who comments wryly

I find in the work of the committees which append themselves to Mr Laurie Carmichael an unspoken presumption that if school leavers are educated for employment, the job market will somehow grow to accommodate them. We are incomparable fools if we allow the reviews of Finn, Mayer and Carmichael to be progressed with this irrational understanding.

Increased employment with an appropriately skilled labour force(however that is defined) has not been the outcome of the New Right policies of the last two Conservative governments in the UK or under the Republican governments of Reagan and Bush.

The so called 'freedom to choose' is the domain of the wealthy. Unemployment continues to rise. State social security has been slashed.

It is difficult to understand the joy of free-market enterprise if you have no means of producing a product, nothing to sell, and no means of being part of the market. Unemployed people and casual workers cannot even be valued as consumers. And what if you are appropriately skilled and for some mysterious reason the national currency plummets to accommodate the international free-market network? The power of the individual, so highly valued by the New Right seems rather hollow. The collective intervention of the government is supposedly bad, but the collective intervention of the multi-million dollar corporations is supposedly ok.

The outlook for state funding of the arts is not promising if one is to understand Prime Minister Keating's comments when he addressed the AWGIE Awards Dinner this year. In his speech he spends much time indicating the value of the arts to Australia's economy, especially in a predicted recession recovery but in his conclusion a huge contradiction appears. He comments

In all this we are talking about a role for the Commonwealth, and by implication for state and local government. Yet I believe that one of the keys to our cultural development will be a new culture of non-government funding.

I would expect that in the formulation of a new strategy we would want private individuals and companies to invest more in the creative life of the nation....

In summary, I think the overall object should be to create a role for the Commonwealth government which at once stimulates our national creativity and returns it to the people. (Keating, 1992,p.8)

Is he suggesting that the nation's creativity has somehow been taken away from "the people" and is generously being returned? It is hard to believe that the profits of industry and commerce will be ploughed back into the artistic life of the country. To take the UK as an example again, we are more likely to expect an increase in trivial sex comedies in our theatres, light musicals, the tackier side of rock and pop music : in other words - sound investments.

This paper set out to present a partisan view of potential negative effects of the New Right economic thinking and practice if they were to (as it seems inevitable) become dominant in Australia. We should be on our guard against any erosion of the centrality of music and the arts in general to our educational curricula, especially if we undergo a decade or so of economic rationalism. For

In the court of King Economics, according to the models, the economic community will live wealthily if not necessarily happily ever after. Neither "nation" nor "community" will get a guernsey in this distorted brave new world. (Alomes,1992.,p19)

Kipps Horn, Arts Education Department, Faculty of Education, Royal Melbourne Institute of Technology, September, 1992.

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"MUSIC FOR THE DEAF"
On the failure of current practices in Theoretical and Aural
Training

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The title of this paper may seem irreverent, cynical, disrespectful or even insulting. But it is in no way meant as a criticism of deaf persons. The "deaf" of my title are music students of the ordinary variety, who learn Theory of Music without a note of music being heard, or who "cannot hear" sufficiently to pass exams in Aural. Both of these groups of students can be said to suffer from a variety of musical "deafness".

In her admirable series of books called "Master Your Theory", Dulcie Holland sensibly encourages students to play through the work that they do in following the exercises, in order to develop the relationship between "symbol" and actual sound. Yet I know of many students who read the books, do the exercises and DO NOT play through a single one. These students can still pass the relevant exam, sometimes even with distinction, but they cannot "hear" their work.

Another fascinating phenomenon is the student who can write the primary triads in the Theory paper but is quite unable to play the I-IV-V-I required in the Piano exam. The student cannot relate a quantitative musical fact (the written triad) to a chord in root position played on the keyboard. This is not a visual dysfunction, since, although the student is unsure of, or "does not know" the notes of the triad at the piano, he or she is quite capable of

"seeing it on paper", i.e. writing it out.

Naturally, these students often do very poorly in the Ear Tests. Despite long and tedious application of homegrown remedies such as "A perfect fourth is the opening interval of Auld Lang Syne, Jimmy!", intervals are frequently dealt with by guess work, with predictable results. In my case, I have yet to find a modern kid who knows Auld Lang Syne, or Away in a Manger, or Amazing Grace, the other candidates in the perfect fourth department. Does anyone know a Top-40 song beginning with a perfect fourth? And then there is the mine-field in distinguishing between the major and minor sixth!

A student who can sing a pop song with gusto turns weak at the knees when asked to sing "the lower part", or, when asked to sing the three notes of a triad in inversion, sings notes which are not present in the chord, or "phantom" notes above or below the highest or lowest note respectively. Some of this is due to fear, of course, but mostly it is defective "hearing".

By and large, these students have less trouble with cadences. The Interrupted is generally recognised, but the rest are often dealt with by "If he shakes his head when I say Perfect, it must be *the other one*". There must be something wrong with the word "Plagal". Few students feel comfortable with it. As a further example of this guesswork, the teacher who plays two of the same cadence consecutively invariably gets two different answers as the student operates again on the principle of elimination.

Returning for a moment to Theory, or what is now sometimes called Musical Techniques, the writing of melodies, the adding of a treble above a given bass or vice-versa, four part harmonisation etc., are generally handled badly, or in a stilted way. This problem is not restricted to school-age students. It extends to University and Conservatorium level. I recall one fifth year singer who still hadn't passed first year Harmony and Counterpoint or Aural. She graduated as a result of a fine contralto voice and Departmental pity.

It is possible to continue the list of weaknesses in these subject areas almost indefinitely. The problems are so widespread as to make one think that most students are at best lazy or at worst untalented. After all, gifted students do and will continue to do well. It can't be the course that's wrong. We all passed, didn't we? So it must be the students.

This is a convenient and comforting position to take. In addition it supports the establishment view and preserves the status quo. But I suspect that the ease of application is indirectly proportional to the truth, which is that we have reduced living music to a series of dull textbook rules, and separated real functional hearing for too long from its genuine basis, the actual musical sound.

In traditional methods of theoretical and aural training, too great an emphasis is placed on developing skills which are based on 18th and 19th century models. This heavily historical bias adds to the complexity and prevents

much of what passes for "music" from developing functional musicianship in students who will graduate and work professionally in the twenty-first century. The piano student studying, for example, Pavane for a dead princess by Ravel, with its effective parallel 9ths, has difficulty in understanding what's wrong with parallel chords in the harmony exercise. (One is reminded of Noel Coward who said after one lesson at the Guildhall School "If parallel fifths were good enough for Debussy, they're good enough for me!")

The mind-boggling assemblages of "rules" for four part harmonisation *in the style of Bach* have defeated even above-average students, and yet there is not a single "rule" for which one cannot quote an exception in the work of Bach. The extrapolation of this process is to be found in the 3 hour paper for Doctor of Music, with its "Dinosaur" questions on fugue and vocal writing in the style of Palestrina.

Certainly, historical styles should be conserved. This is one of the functions of Conservatoria. But should we go so far as to continue to teach them as if fluency in these styles is the criterion of musical success? If so, then perhaps, in the age of the computer, we should continue to teach pre-decimal avoirdupois measurement and counting on the fingers.

Traditional AMEB-type harmony - so as not to let this be an AMEB-bashing session let me include Trinity College-type too - derives largely from the English Victorian schools, one of whose prime aims was to teach students destined to be Anglican organists and/or choirmasters. The

limited abilities of amateur choirs, both British and German Lutheran one suspects, dictated and hence further restricted which intervals were "good", which progressions were "hideous", as one textbook judges them. Thus, the average "correct" 4-part harmony exercise sounds like an Anglican hymn-tune. Is this forever to be the hallmark of excellence in harmony?

Now it may be objected that these observations are too simplistic. Once students progress beyond elementary 4-part harmony, and learn extended harmony or twentieth century schemes (what used to be called "third year work" at my music school) they should have a complete grasp of harmonic styles. Yet how frequently one finds students who still lack any real command of the vocabulary of "traditional" harmony at the end of their standard three year course.

If the aim in theoretical subjects is "to be able to hear what you write and write what you hear", then I suspect that it is the word "hear" which is responsible for much of the difficulty. It is sad to think of so many young musicians who are unable to hear what they write. Far more insidious than this, however, is the fact that these theoretical subjects can be learned, and are sometimes taught in almost total silence! The "tricks" of jumping through the various harmonic "hoops" can be learned from books, and students can pass the relevant examinations without ever having to hear what they write. Blind, or perhaps one should say "deaf", obedience to the rule will produce the required result.

It should come as no surprise that in Aural classes, the level of discriminating listening is often almost zero. Our praxis has not sufficiently insisted on the inseparable nature of theory and sound. Consequently, traditional methods of teaching these subjects may be more appropriately labelled "Music for the Deaf"!

We need to develop new teaching models, and to teach through innovative techniques, relegating 18th and 19th century harmony, for example, to their proper place as historical, stylistic streams, and facing the realities of computer-enhanced musics, and other musical techniques more relevant to students in the 21st century.

There seem to be two problem areas. One is caused by too exclusive an emphasis on a single type of harmony, and the other manifests itself in poor musical hearing. These two problems are interrelated, and feed one off the other, extending the weaknesses. The solutions to the problems, I feel, are also interrelated.

We need to continually develop the faculty of memory for sounds. It is acknowledged that a great deal of success in Aural work depends on accurate memory, and of course it is best to train that memory from an early age. The Yamaha method of training children, starting from as young as 2, 3 or 4 year olds, works on the premise that the period in a child's life when it is most receptive to and non-discriminating of sound is up to the age of 6. The greatest number of words in the child's vocabulary is acquired between the ages of 4 and 6. Through several years of

regular classes, good relative pitch and even perfect pitch can be attained by children too young to know that these things are supposed to be difficult.

In Queensland primary schools, much valuable work has been done since the introduction of compulsory music some fifteen years ago. The Kodaly method has proved particularly valuable. There are, of course, still too few music specialists in the schools, but the Education Department requires all teacher trainees to pass Music Literacy, where Kodaly, solfege and Chevé time names are standard fare. In teaching this course, I constantly urge the student teachers to give the children strong associative devices, aides memoires and mnemonics, so as to train their memorys and make almost automatic their response to musical "facts". Given patience and persistence, many of the problems mentioned above will undoubtedly diminish, but we must promote better hearing from every angle.

Now, where it is possible to start using these methods with young children, much can be achieved. But the same principles can be extended to apply to older students as well.

In all music classes, I would suggest a system whereby no note or chord is ever mentioned or written without being immediately played, and more than once, for preference. This is quite easy to achieve by having one student, using a small electronic keyboard placed on the desk in front of him or her, play any and every note as it is named or written. Students take this in turn, one per class. No

exception must be allowed, and no opportunity lost to reinforce the relationship between symbol and actual sound. The aim is eventually for the note to be "heard" with the inner ear before it is played.

Not only in classes but also in individual lessons this can be developed further by keeping exercises in the same key or tonal area for a period of, say, several months, so as to build recognition and confidence. The computer ear training course, Listen, version 2.0, can be used in this way too, and is a most useful teaching aid, and one the students enjoy. But I want to emphasise that the first task is not to name the sound but to recognise the sound when it is heard again, and then to relate the sound to its name or symbol, with individual sounds being played frequently, almost obsessively, building on the all-important memory process.

There are obviously many ways of doing this, but, I find that targeting certain specific areas for an extended time works well. Take a "simple" case from tonal music: triad recognition. The student is asked to sing the root position triads of on each degree of C major, (excluding the diminished triad on the seventh degree for obvious reasons) in this manner: (Triad I played) - "C major, C-E-G", (Triad II played)- "D minor, D-F-A" etc. This must be done over and over, building the memory. I then "trick" the student by NOT playing the triad but still saying, for example, "C Major", and I almost always get an automatic response "C-E-G" sung correctly in tune. One boy was so shocked to find that he

could do this that he kept singing "C-E-G" every few minutes, checking himself at the piano, delighted to find that he was "still right."

We approach this technique gradually by using a few single notes, in C major, and then a few pairs of notes, and so on. The reason for staying so long in the same key is to develop a point of reference. This quasi perfect pitch method is actually developing better relative pitch. Other key-areas can be experimented with as skill develops.

Another technique deals with sound texture, whereby the student is asked to identify how many notes are played in a (generally "atonal") chord. The number varies from two up to six usually. In addition, attention is paid to how close together or how widely spaced the notes are. Since so many students are now computer literate, and use computer music programmes, midi, sample and hold and digital recording devices with complete ease, and are capable of creating quite complex sounds, it is important not to limit the training to tonal harmony, or simple bland chords.

Naturally, a great deal of attention must be given to rhythmic training, using the same process of obstinately dealing with identifiable rhythmic cells until these are burned into the memory. Another technique involves a loose system of identifying the relative "tension" of cluster chords etc, always with a view to building a "repertoire" of sounds, and developing the powers of discriminating hearing, but without being overly concerned with naming the sound phenomena.

This is in direct contrast to the "normal method" of requiring students to say whether a given interval is, for example, a major third or a perfect fifth etc. It is only when the sounds have been memorised, and the memory can be activated sufficiently to identify a certain sound that these sounds need their given names. Of course, one can begin with the associated names A, B, C, or doh, lah, soh etc, but, for the process of developing the memory, these could as easily be replaced by 1, 2, 3, or blue, green, red and so on, as long as each sound can be recognised by its individual quality. After this, the sounds can be analysed, classified, names learned etc, but not before ease of recognition is experienced.

In closing, I wish to say that I do not advocate these methods exclusively. They are merely one ongoing attempt at resolving the problems. I shall be delighted to hear from others who have tried different approaches, and of the successes and failures they have experienced. Comment and criticisms are welcome. It is vital that we re-examine the way Theory and Aural work are taught, and build up the powers of musical hearing, using any method that will develop the association of sound and symbol. After this skill has been developed, student problems with hearing should diminish as a wider range of sound phenomena are added to the individual's repertoire, and matters of mere historical usage seen in perspective, and not treated as "God's own harmony".

THE IMPLICATIONS OF FEMINIST MUSICOLOGY FOR MUSIC EDUCATION

MAREE MACMILLAN

ABSTRACT

Until recently, musicology has exhibited little evidence of the impact of feminist scholarship. Concomitantly, music education literature, where it deals with gender at all, does so largely from an access and equity perspective. The work of leading feminist musicologist, Susan McClary, in examining the gendered nature of music as a discourse, radically challenges traditional musicology. The application of this approach to music education entails going beyond liberal feminist strategies to the deconstruction of traditional historiography and formalism, thus enabling a more realistic, contextually informed assessment of music by both women and men to be made. An epistemological framework based on the grounding of knowledge in the body suggests the possibility of a feminist aesthetic in music. The acknowledgement of "women's ways of knowing" and of the power of music as a socialising force has far-reaching implications for education in general and hence for society as a whole.

I propose to examine the implications of the latest developments in feminist musicology for music education, focusing on the work of American musicologist Susan McClary who is internationally recognised as a leading scholar in the area. Because her work challenges traditional musicology at a radical level, it applies not only to tertiary music study but also demands a deeper examination of music practices in early childhood, primary and secondary, in studio teaching and in the community as a whole. Although I will refer particularly to western "art" music in Australia, my comments are often equally pertinent to other contexts.

I would contend that musicology, and hence the related aspects of music education, is still largely based on patriarchal and dualistic notions which date back at least as far as classical Greece. It is instructive how much of our thinking is still pervaded by so-called masculine/feminine dichotomies as: form/formlessness, order/chaos, reason/intuition, culture/nature, mind/body. The so-called masculine side of the dualism seems to have become entrenched in a recognisably modern form in the 17th century with Descartes's method of doubt and Newtonian science heavily influencing what counted as knowledge. Modern epistemology is still dominated by these methodologies of rationalism and empiricism.

Today's discourses often carry echoes of Francis Bacon's early exposition of scientific method.¹ His extraordinarily patriarchal approach is evident in his dissecting, mechanistic descriptions of nature, which he sees as something to be controlled and conquered, a seething, dangerous mass threatening to overwhelm 'civilised' life. (Perhaps there is something of this attitude still prevalent in relation to music.) Simultaneously, he regards nature as dead, something to be manipulated and experimented upon, having no integrity of its own. The legacy of this sort of approach is the threat of imminent ecological disaster which today jeopardises our very existence.

What we often forget is that at the time of Francis Bacon there was an equally venerable tradition existing side by side with empiricism, that of alchemy. This embodied the other side of the dualism, valuing the intuitive, the affective, the spiritual, the response of the body, the so-called feminine qualities on which Western rationalism has turned its back. Western science has little comprehension of the abilities of, for example, Tibetan monks. It is high time for a better balance between East and West, between feminine and masculine.

At least in classical Greece dual approaches to music were valued: the Platonic tradition recognised music's power over the body and the passions, while the Pythagoreans described numerically the relation between notes. It is unfortunate that today's musicology and music criticism have evolved largely from the latter approach to the exclusion of the former. If music is just music, a self-contained system operating according to laws derived from the acoustic properties of sound, it is difficult to see how issues of gender even arise.

¹ See citations and discussion in Carolyn Merchant's *The Death of Nature*, (Harper and Row, San Francisco, 1980) and Evelyn Fox Keller's *Reflections on Gender and Science*, chs. 2&3, (Yale University Press, 1985).

An Overview of the Field

Until very recently, musicology has shown little evidence of feminist impact. It seems almost to have passed from pre- to post- feminism without having to even examine its practices. (Recent standard texts still bear titles such as *Man and his Music*, *The Music of Man*, *Masters of Italian Opera*, *Masters of the Second Viennese School* and rarely include a single reference to women's contribution to music.) It has consisted largely of a chronological history of the lives and times of "Great Composers" (always male), together with analyses of their "Masterpieces". No evidence of even an awareness of the existence of feminist concerns is apparent. The situation is only marginally better in music educators' journals, which have either omitted discussion of gender completely, or have been largely concerned with access and equity issues.

The first book-length publication in feminist musicology, Susan McClary's *Feminine Endings* ², appeared last year. This rocks traditional musicology to its core and has major implications for music education, perhaps even for education as a whole. However, it is too recent to have appreciably affected mainstream discourse as yet, or to have influenced the popular journals at any meaningful level. In such a new area, educational strategies are of necessity highly speculative, with implementation and evaluation of their effectiveness some years down the track.

1991 appears to have been something of a watershed in the area of women and music: there were three international conferences on music and gender, in Utrecht, London and Minneapolis. The main focus of these appeared to be the connection between sexuality and meaning making in music, but there were also papers related to music education. ³ Two feminist anthologies are also in the pipeline ⁴, several professional journals have begun to request feminist articles and a new book on women in music history appeared. ⁵

Activity was also lively in Australia, which saw its first national *Composing Women Festival* in Adelaide last year. It featured music by women from the 12th century to the present day, the majority of which was performed by women. In July this year, the *New Music Festival* included a concert of work by women, a retrospective celebration of the life and music of Australian composer Peggy Glanville-Hicks and a forum on women composers. Also in July, the Faye Dumont Singers gave a concert entitled *1100 Years of Women's Choral Music*. In September, I was asked to

² Indiana and Bloomington, Indiana University Press, 1991.

³ Some of the London conference papers relating to education were:

Hilary Bracefield, *University Composition Teaching in the United Kingdom: Perceptions of the place of the woman student*

James R. Briscoe, *Needs and Resources for University Teaching about Women Composers*

Lucy Green, *Gender, Music and Contradictions in the Role of Education*

⁴ Ruth Solie, (ed.), *Music and Difference*, Berkeley, University of California press, 1992.

Susan and Judy Tsou, (eds.), *Cecilia: Feminist Perspectives on Women and Music*, (publisher unnamed at this stage).

⁵ Karin Pendle (ed.), *Women and Music: a History*, Bloomington & Indianapolis, Indiana University Press, 1991.

give a feminist perspective on New Music Criticism at a Melbourne University Australian Centre forum in the *Words and Music* series.

Gender Issues in Australian Music Education Journals

Despite the impact of feminism on life choices and educational policy over the last fifteen years⁶, there appears to have been virtually no discussion of gender issues in Australian music educators' journals. Since 1985, some music publications not specifically connected to education have produced one-off issues featuring women composers⁷ and some undergraduate projects have focused on gender issues and school music.⁸ There is also a film about Australian women composers intended for educational use⁹ and one Department of Education document: *Towards Non-sexist Education Curriculum Ideas - Music*¹⁰.

Overseas Journals

During the late '70s and early '80s, a number of articles appeared in the American *Music Educators Journal*. Donna Pucciani's article "Sexism in Music Education" in the 1983 September edition is a survey of the literature of the preceding ten years. In seeking materials related to sexism, sex-bias or sex-stereotyping in music education in America from kindergarten to twelfth grade, she discovered only fourteen studies.¹¹ In 1984, the same journal featured two articles on women and music, one about performers and teachers¹² and one about composers and conductors.¹³

⁶ For example, reports ranging from *Girls, School and Society* (1975), to the 1987 *National Policy for Education of Girls in Australian Schools*.

⁷ For example, (NMA (New Music Articles) 4, NMA Publications, Vic., 1985.) and *Sounds Australian Update*, No. 21, Autumn, 1989, (Australian Music Centre, N.S.W.) were devoted to women composers; an article by Faye Dumont entitled "Women Composers of Choral Music in Australia" appeared in the Australian National Choral Association's journal *Sing Out*, Vol. 8, no.1, 1991.

⁸ They are:
Gina Diamandis, *Sex Differences in Classroom Interactions in Secondary Music*, B.Ed. "Independent Study" University of Newcastle, School of Education, N.S.W., 1990.
Jennifer Swan, *Study to Investigate Factors Influencing Elective Music Choice, Relating to Gender*, B.Ed. "Independent Study", University of Newcastle, School of Education, N.S.W., 1990.

⁹ Adele Sztar, *Australian Women Composers*, (videorecording distributed by the Australian Film Institute), 1983.

¹⁰ N.S.W. Department of Education, Directorate of Special Programs, 1985. This was developed by a group of music teachers and covers briefly examples of women composers omitted from mainstream history and some reasons for this; a rationale for non-sexist perspectives in music teaching; guidelines for non-sexist teaching and suggestions for strategies and lesson plans, largely along the lines of equal representation and access.

¹¹ See bibliography for details of these articles. These covered areas such as sex-stereotyping in choice of musical instruments, sex-bias in children's song books and the need for female role-models and equal opportunity in the music profession.

¹² Mary Brown Hinely, "The Uphill Climb of Women in American Music: Performers and Teachers", *Music Educators Journal*, April 1984.

¹³ Mary Brown Hinely, "The Uphill Climb of Women in American Music: Conductors and Composers", *Music Educators Journal*, May 1984.

Since then there appears to have been a lull in the discussion of gender issues in the widely circulated music education journals. It has not been until the last few years that interest in the area has re-emerged. ¹⁴

This year, the March edition of the American *Music Educators Journal* is devoted to women in music. The need for gender-inclusive teaching, female role models and attitudinal change is emphasised in articles that cover women composers, instrumentalists and music educators as well as educational materials and strategies. These latest articles on the whole demonstrate an increased awareness of feminist concerns, looking a little beyond the liberal feminist access and equity approach; the influence of feminist art criticism and history is evident here in embryonic form. Although equal access initiatives are necessary and commendable, they do not go far enough. The implications of the very latest work in feminist musicology demands attention.

A Growing Awareness of Gender Issues in Australian Music Education

Despite the absence until recently of discussion of gender issues in the music education literature, there have been nevertheless some changes in actual practice. These have probably occurred largely as a result of the general social climate which is increasingly accepting, or at least granting lip service to, access and equity concerns and concomitant government policies. In Victoria, for example, the VCE Music course development support material mentions a few women composers, but sadly these are still vastly outnumbered by the males included. *The Arts Framework P-10* document which should feed into VCE courses speaks only of the importance of exposing children to a wide range of music, mentioning different styles and cultures, but including no specific reference to gender as an issue.

Last year saw the beginning of what it is to be hoped will be a renewed interest in gender and music education, perhaps prompted by, or perhaps merely coincidental with, the general upsurge in feminist musicology itself. For example, the Australian Society of Music Education passed the following resolution:

There is a need for greater acknowledgement in music of women as composers, performers, critics, etc. .

This was one of several resolutions concerning access and equity of particular groups. ¹⁵

¹⁴ For example, since 1989, the *International Journal of Music Education* has featured a handful of articles on "great women" in music education. However, they are much fewer in number than similar articles about men and their approaches implicitly adopt male paradigms. In 1990, the *British Journal of Music Education* included an article about women composers and the music curriculum, arguing that the lack of confidence of present-day women to compose is related to the failure to include female role models from the past and the present. Last year, a study of boys' and girls' motivational criteria in starting to learn to play a musical instrument appeared in the same journal.

¹⁵ Introductory articles on these resolutions appeared in the Victorian Journal of Music Education, 1992, No.1. I am the author of the article on the resolution concerning women. A follow-up seminar is being planned for later in the year.

Also this year, a government project is addressing gender and the arts on a national scale for the first time. *Gender Equity and the Arts* is a sub-section of the DEET *Gender Equity In Curriculum Reform Project*. It notes, as did the American survey referred to earlier, the limited amount of education-specific literature on gender and the arts.

It raises some interesting issues concerning the arts as a whole, such as the perception that the area itself is "feminine", of lower status relative to other subjects, a "frill" in the hierarchy of knowledge within education. Given the large majority of girls taking arts subjects, the implication is that the educational experiences of many girls are being devalued. One of the main concerns of the paper is that despite the large proportion of girls studying arts subjects, females are still gravely under-represented in the arts "industry", as males in fact occupy 93% of managerial positions.

While addressing areas such as language, roles and stereotyping, it acknowledges that the recovery of women "artists" can be considered as only one strategy in a gender inclusive approach. It recognises the importance of "women's ways of knowing" and of critically examining the social structures which are detrimental to women and girls. It is heartening to see a serious attempt to incorporate feminist scholarship at a deeper level in investigation of the arts in general; however, musicology is yet to be dealt with specifically.

The Discipline Of Musicology From A Feminist Perspective

For at least ten years feminism has informed the areas of visual arts, literature and history; the "Great Men", "Great Tradition" and "Great Events" approaches are no longer recognised as giving an adequate account of the totality of our culture, even of Western culture.¹⁶ Historical significance has been extended to encompass personal and subjective experience as well as the publicly "political". However, in its adherence to the "Great Composers" approach referred to earlier, traditional musicology still presents itself as orderly, settled and unproblematic. The discussion of musical works has tended to be formalistic, with little sense of music's being a powerful social force which not only reflects but shapes history and culture.¹⁷ Alternative modes of historiography are needed.

Feminist musicology, in exploring such alternative modes, has produced a rich variety of approaches. Particularly influential is that of leading scholar, Susan McClary, whose work radically challenges traditional musicology by demonstrating how music itself is a gendered discourse. By cross-referencing between works of different periods and genres, she lays bare the assumptions of each particular repertoire, exposing the values encoded in the actual music.

McClary adopts an epistemological framework based on the grounding of knowledge in the body. She points out that music makes a direct physical

¹⁶ The DEET draft paper discussed above recommends examining the historical construction of the notion of the "Great Master" (p.9).

¹⁷ This too is recognised in the DEET draft paper (p.6).

impact by altering the pulse-rate, the breathing, the glands and the brain patterns. She demonstrates, moreover, that there is considerable agreement within our culture about the mood of a particular piece of music and how it makes us feel.¹⁸ She contends that music is not a pure, autonomous language which is somehow ineffable and transcendental, but is a vital component of social formation, causing us to experience our bodies in new ways. A strong sense of social history is necessary to understand why particular musical images and constructions dominate at particular times and in particular contexts.

Briefly, her provisional methodology for a feminist criticism is as follows:

Firstly, she identifies constructions of gender and fabrications of sexuality in texted music such as opera and song, mapping a semiotics of desire for and in music. She examines musical conventions developed to depict "masculinity" and "femininity" and the way music participates actively in the social organisation of sexuality by influencing the ways listeners experience and define their intimate feelings. She explores how music arouses and channels desire by creating patterns of sound that resemble those of sexuality.

Secondly, she examines the gendered aspects of traditional music theory - the biologically derived metaphors and hierarchies of the binary classification of cadence types into masculine/feminine (strong, rational, normal, compared with weak, subjective, abnormal, respectively) and of tonalities into major/minor, dominant/subdominant, consonant/dissonant.

Thirdly, she draws on the work of Foucault and of Teresa de Lauretis's feminist literary and film criticism to look at the gendered construction of musical narrative. She demonstrates how the hierarchical nature of tonality itself operates to arouse and channel desire. In most of the dominant musical forms the structure determines *a priori* that the opening (masculine) key area and material must subjugate or encompass the subsidiary (feminine) second key area and material for narrative closure of the musical form.¹⁹ She points to the quasi-mathematical diagrams and graphs of the highly influential analyst Schenker as demonstrating in fully material terms the construction and greatness of compositions from the masculine canon.

Fourthly, she examines the anxiety of analysts and theorists to emphasise the so-called objective, universal and transcendental aspects of music. She sees this as an attempt to counteract the fear that because music has often been placed in the feminine realm through its association with the body (in dance or for sensual pleasure), it is itself effeminate. Female participation has even been excluded altogether in the past. She speculates that Modernism in music may even be an attempt to remasculinise the discourse by composers, music institutions and even whole nations who doubt their self-image.

By rewriting the standard musical canon from a feminist perspective, McClary renders it far more vital as an object of study than it was in the "Great Composers" and "Masterpieces" phase. The act of deconstruction thereby becomes reconstruction. In recognising the centrality of music to the formation of social reality and subjectivity, we powerfully reclaim

¹⁸ Advertisers and film-makers make good use of this fact.

¹⁹ This scenario is played out quite explicitly on a larger scale in opera, where the heroine almost invariably dies at the end. Large-scale structures of instrumental music are equally reliant on this and indeed did not exist before the advent of tonality.

ourselves and open the possibility of conceiving of and implementing alternative worlds.

In the final section of her book, McClary examines the discursive strategies of women composers and performers to contest old musical ideologies and constructions of sexuality and gender. She points out how until recently, women overall had been either denied the training, assumed incapable, or confined by essentialist stereotypes of what music by women should sound like. Some eminent female composers insist on attempting to make their gender identities a non-issue because of lingering essentialist assumptions. They insist that they write MUSIC, as opposed to "women's music". This is an important strategy, given the marginalisation of women in the field; however, in view of the kind of gender/power relations already inscribed in Western music, unless a composer - even a female one - is aware of these, it is difficult for her to avoid unwittingly reproducing the same ideologies. It is therefore important that listeners and composers be educated to recognise the gender/power relations encoded in the discourse in order to make informed judgements in their listening or writing.

Strategies For Feminist Musicologists And Music Educators

I see it as necessary for music educators to work on several fronts at once. Certainly it is essential that the liberal approach of equal access and opportunity and affirmative action be endorsed. However, success of women on male terms in a male world is not enough; a more radical re-examination of musical discourse itself is essential both to the real possibility of creating alternative ways of being and to the very integrity of musicology as a discipline.

The liberal approach encompasses strategies such as: equal educational access and the building of confidence in girls to enable them to take advantage of this; promotion of inclusiveness of language, materials and curricula; examination of sexist methods and practices; deconstruction of myths about male and female abilities; examination of the frequency and manner of women's representation in texts; promotion of non-traditional role-models; examination of the effect of prohibitions, obstacles and marginalisation of women; the reclamation of the contribution of women throughout history; affirmative action and promoting the higher profile of women in the discipline overall.

More specific strategies could include: supporting publishers who specialise in music by women and writing to others demanding more suitable materials; inviting women conductors, composers and brass players to class; including music by women on concert programs; commissioning music by women; breaking the cycle of teaching only what has already been taught by devising curricula which include the contribution and work of women composers, musicians and patrons; ensuring that all students have an opportunity to succeed in composing, conducting and playing all types of instruments; abolishing sexist comments and attitudes with regard to traditionally "masculine" and "feminine" musical instruments; insisting on behind screen auditions; changing existing criteria for the allocation of grants to allow for the experience of women.

Certainly all these initiatives are important, but their limitations must be recognised. While role models are extremely important in shaping girls' ideas of what is possible for them as career paths, it is recognised that female

role models may not necessarily be feminist ones and may therefore be of limited value; however, a total absence of women in a field is even more demoralising. In addition, producing female counterparts in a male system does not represent change at a particularly radical level.

Nevertheless, it is important that girls have a sense of heritage, a knowledge that, despite restrictions on education and opportunity, women throughout history have made notable contributions as composers and performers.²⁰ A detailed knowledge of the contemporary social environment is essential to the appreciation of just how remarkable these women were. A large amount of valuable work has been done in this area over the last fifteen years.²¹

The knowledge derived from this work can also help in the development of further insight into the present-day situation of women musicians and give them a new base of confidence from which to determine their lives. There is nothing so depressing for an aspiring female musician as spending her musical education studying texts of the genus *Man and his Music*, in which women, if they are mentioned at all, appear as wives, daughters or sisters of male composers rather than as composers in their own right.

However, although reclamation to music history of exceptional women is important and inspirational, it is essential that the work does not stop there. For this approach is not one which sets out to discover the place of women as a whole; it is to discover women who were sufficiently "notable" in male terms to be regarded as worthy of inclusion in a male-defined and male-recorded history. Apart from women such as Clara Schumann and Fanny Mendelssohn who are associated with famous men, the composers who do appear in this history tend to have been known as performers rather than composers or to have been eminent in other areas: Hildegard von Bingen, for example, was highly regarded as a mystic and diplomat, amongst other things.

The notion of the "exceptional woman" has always been problematic for women's history, but is exacerbated with regard to the arts. Western culture's age-old conception that art is produced by the atypical individual, crystallised in the nineteenth century into the romantic construction "genius" (always male) works to mystify musical skills, removing them from the realms of ordinary mortals. The role of education and just plain hard work are totally disregarded. This view of musician as individual genius devalues the work of millions of women and men participating in music-making all over the world and militates against the aim of contemporary Western music educators to foster the belief and practice that everyone is a musician. (In many non-Western countries this is already integral to their culture.)

Textbooks such as Karin Pendle's *Women and Music: A History* encounter the problem of trying to fulfil two functions which have

²⁰ The following quotation shows that the situation is by no means new:

Women have arrived at excellence in every art in which they have striven; in their chosen fields their renown is apparent to anyone who studies the history books. If the world has long remained unaware of their achievements this sad state of affairs is only transitory.

Ludovico Ariosto (1479-32), from *Orlando Furioso*, (Transl. Guido Waldman) London, New York, Oxford University Press, 1974.

²¹ Several useful books have appeared which illuminate this area. See, for example, Bowers, J. and Tick, J., *Women Making Music*, Urbana, University of Illinois Press, 1986. These studies show that because of prevailing beliefs about suitable roles for women, creative women of the past tended to fall into one of the following categories: they belonged to monastic orders, were women of property or economic independence through noble birth, or through performance or teaching careers, or were daughters of professional musicians to whom they were apprenticed.

somewhat contradictory agendas: they attempt to take a feminist approach while aiming to provide a text for mainstream study. They have a tendency to fall into traditional historiography which accepts male periodisation and the tendency to document the lives and work of exceptional individuals, albeit female ones. Isolated chapters on feminist aesthetics sit rather uneasily in this context. However, these textbooks provide a wealth of information about hitherto unknown women and are a first step towards a more balanced and integrated appraisal of musical history.

Ruth A. Solie's summing up of the situation is pertinent:

A number of crucial questions need to be asked in connection with a woman musician's life that have not traditionally been thought significant in studying male careers: the distinction between amateur and professional status and its enforcement; the role of social class; the place of women's communities as beneficent environments for artistic development; marriage as a career-ender among the genteel or upwardly aspiring; differential degrees of access to performance opportunities as opposed to composition - all of these are crucial historical variables when it comes to explaining women's success or failure in music. We may also be justifiably curious about professional women's own understanding of their gendered situation. Good feminist musicology must, here as elsewhere, tug against the conventions of the discipline. ²²

Educators, therefore, have a responsibility to document not only the place of women in music and to promote equal access and opportunity in all areas, but also to critically examine the gendered nature of the very discourse itself. It is important to recognise that if the contribution of women is to be given true acknowledgment, many of the inherited conventions of this society must become liable to question, alteration and extension. It is not sufficient to just "add women in" to existing male structures. Equality must not be confused with sameness. To insist that a woman be better than a man on exclusively male terms is to deny the possibility that some women may wish to express themselves musically in different ways from men.

Towards a Feminine Aesthetic?

Because women have different bodies and thereby experience the world differently - both by virtue of different physicality and by roles and behaviours culturally assigned to them accordingly - they have different perceptions of the world from men. (This is particularly significant in the light of McClary's argument.) While in no way wishing to endorse an essentialist view, it seems nevertheless undeniable that women have available to them different "ways of knowing"²³ which they may consciously or unconsciously express musically. To achieve equal participation of women in the musical mainstream while leaving the mainstream itself unchallenged is therefore to deny a huge range of creative potential and alternative modes of being in the musical world. However, there are at present few alternatives to mainstream education; if women do not receive an education which enables them to take up powerful positions in music, they forgo the opportunity to influence what is taught

²² Ruth A. Solie, "Variations on a New Theme", a review of Karin Pendle's *Women and Music* (op. cit.) in *The Woman's Review Of Books*, Vol. IX, NO. 5, Feb.1992.

²³ See Carol Gilligan, *In a Different Voice; Psychological Theory and Women's Development*, Cambridge, Mass., Harvard University Press, 1982.

and how. A feminist perspective is necessary if women in power are to promote the interests of women overall, rather than merely to further their own careers.

Questions arise as to the existence of a feminine aesthetic in music. Further research is needed in discovering, recording, analysing and evaluating music by women throughout history, taking care to look beyond a traditionally formalistic approach to arrive at a more realistic, contextually informed assessment of women's work. While some women felt compelled to adopt a masculine mode of expression in order to be taken seriously as artists, it may be that others aimed to write music which does not conform to male paradigms, seeking, rather, to express their different experiences as women, as was suggested earlier. Until recently, any deviation from the paradigm has been dismissed as a failure to succeed in the established male mode, which is, indeed, the only one regarded as credible. In view of the kind of gender/power relations already inscribed in Western music, unless a composer - even a female one - is aware of these, it is difficult for her to avoid unwittingly reproducing the same ideologies. Admittedly it is not easy to create an authentic and critical voice when our very notions of what is feminine are constructed from within patriarchal culture.

It is possible, therefore, that women may, either consciously or unconsciously, write music different from that written by men. Cixous' assertion ²⁴ that feminine writing is impossible to define, cannot be theorised, enclosed, or encoded might well be applied to music. Principles of continuous growth, proliferation and development, fluidity and elasticity are evident in the discursive strategies of contemporary women composers discussed by McClary in the final section of her book. Female sexual response is seen as an important contributor to the evolution of different musical forms and expressions. Images of female sexuality have been traditionally viewed negatively; with a feminist perspective they can be reconstructed and celebrated.

Despite these difficulties, many provocative women composer/performers are actively constructing new realities along feminist lines.²⁵ While the dangers of essentialism are all too apparent - it would achieve little to fall yet again into dualism by creating new orthodoxies - a few general observations about the work of women in Australian music may be ventured. As a whole, they tend to have less vested interest in the establishment, which allows them greater freedom for serious debunking, or more light-hearted cheekiness. They show an eclecticism and a great diversity of styles; their writing tends to be non-convergent and open, rather than striving towards climax and closure. They draw extensively on their own lives as material for their pieces: they are concerned with creating bonds between people rather than with self-aggrandisement. Their use of electronics tends to be utilitarian or concerned with the need to humanise technology; connected with this is a concern for our place in the environment, for quality of life

²⁴ Helene Cixous and Catherine Clement, *The Newly Born Woman*, translated by Betsy Wing, (Boston: Beacon Press, 1985).

²⁵ Australian musicologist Sally Macarthur, in her paper *Ripping the Beard Off Analysis: Writing Henderson and Whitehead into the Discourse* (in *Sounds Australian*, Spring 1991), suggests that Moya Henderson and Gillian Whitehead employ feminist interventionist strategies in their works *Sacred Site* and *Tristan and Isolde*, respectively, by signifying their female bodies in their music. On the basis that the body cannot be separated from its own discourse, Macarthur argues that their music might, indeed, be different from that of male composers.

and for spiritual values.²⁶ These approaches certainly have the potential to enhance the consciousness and cultural inheritance of the whole community, perhaps leading to conceptions of alternative possible worlds which and may even prove vital to our very survival.

There is an urgent need for composers/conductors/performers to write/perform music with a feminist agenda so it is available to our young listeners before male paradigms are inculcated as the "norm". Given McClary's demonstration that Western music traditionally defines women negatively and the feminine as "other", equal access to the study of this music could be counter-productive if not informed by feminist criticism. Even within a feminist framework, there remains the problem of how to deal with the body's response to the emotional/logical pull of the music towards the subordination of the feminine; in opera this is literally the death of women. This is one of the challenges raised by feminist musicology.

Wider Implications for Education

McClary's view that music does signify, is capable of organising our physical and emotional responses and is an important socialising force has far-reaching implications for education in general and perhaps even for the society as a whole. The potential of music to create desired states or attitudes in students and the population overall deserves extensive investigation. An example from the past which is cited by McClary is the way rock 'n' roll in the mid 1950s brought to adolescents a vocabulary of physical gestures which changed their notions of sexuality and were perceived as subversive of the values of the white middle-class. (As long as music reaffirms what we expect, it can manage to seem apolitical.)

Ethical questions arise as to why particular meanings exist and whose interests they serve. The responsible music educator will need to consider carefully exactly which music is chosen to be played or studied and how it is to be approached. Issues of endorsement of particular racial and/or class groups are encoded in this strong social force. (The power of music in political movements is well-known.) She/he will also need to take account of and actively deconstruct the meanings inscribed in the music of popular culture with which most students are saturated; for the music "educator" in the very broad sense of shaping musical taste and opinion, is not just the music teacher or lecturer, but could equally be the compere of a music show in the media, a disc jockey, peers, parents, in fact anyone who voices an

²⁶ At the *Composing Women Festival* last year, it seemed significant that in the *Composers Perform* session, all the women taking part showed a remarkable similarity of philosophy; all saw their music as an active spiritual force for good in the world.

Ros Bandt described her piece as:

.....an attempt to open out whatever spiritual energy does still exist.....so that cultural differences can be overcome and personal and musical communication enriched.

Sarah Hopkins described herself as follows:

As a composer-performer, my desire is to create music which resonates with the space and energy of the Australian landscape as well as the inner landscape of the human psyche. I want my music to move and inspire people and reconnect them with the heart of life.

Vineta Jagzdina wrote:

On being a woman composer I believe that the most vital input in today's world is in the hands, hearts and souls of women. In 1974 Anais Nin answered to the question of why she writes: "I believe one writes because one has to create a world in which one can live". Similarly I compose and perform.

opinion about music and has the respect of the listener. Criticism or deconstruction of music which is invested with a strong role in identity formation is likely to encounter student resistance.

Western culture is in need of reclaiming music as an essentially human, socially grounded, socially alterable construct; it seems to have lost sight of this approach, which after all dates back to Plato, who was concerned with the ethical and affective dimensions of musical practice. Teachers of western "art" music still barely venture beyond the non-social, implicitly metaphysical accounts of music which existed at least from the time of Pythagoras's discovery of the relationship between harmonious tones and numerical proportions. Perhaps it is also related to the cult of individualism as a western ideology. We have much to learn from non-western cultures where music is integral to the social life of the whole community, is spontaneous and not tied to the printed page. Current music education philosophy endorses this approach in its emphasis on composing, listening and performing for all students.

McClary's analysis also has implications for the intrinsic/extrinsic split in rationales for music education. The intrinsic philosophy of music education, often referred to as aesthetic education, is based on the promotion of music for its own sake; music's intrinsic value requires no external justification. The extrinsic philosophy, also referred to as utilitarian, is founded on the promotion of music education as a means towards non-musical ends; the inclusion of music is justified on instrumental values.²⁷ This extrinsic/intrinsic dichotomy sets up a hierarchical dualism, in which one part is seen as the negative of the other. I suggest that a more vital situation is to see the two approaches as part of a continuous whole rather than as irrevocably divided halves or opposites.

Given that music is a physical phenomenon, sound, which has demonstrable physical and emotional effects, it might be asked in what sense it exists apart from human perceptions in the context of education. How useful, then, is the notion of intrinsic value? The perception of music is a living experience, a dialectical interaction; listening to music is not a disembodied or somehow purely cerebral appreciation of an autonomous entity. Music is not the notes on the page but the experience of sound. Moreover, even if it is argued that music can be heard in the mind's ear, human interaction with the score is involved; even examining the structure of a piece of music totally independently of the sound involves an interaction rather than a "pure" act, the point of which surely derives from the reflection of such a structure's impact in the sound in any case. I suggest, therefore, that music education is about both the nature of music and its effect on people simultaneously.

It could be argued against the extrinsic position that while music can certainly be used to achieve similar extra-musical educational ends as can other disciplines - for example, maths, science, visual art, dance, physical education, literature, history, respectively - these ends are not in fact the same; otherwise the disciplines would be the same. However, the fact that music is different from all of the other subject areas does not mean that there exists something intrinsic to music itself which exists apart from our interaction with it. Surely the concern of aesthetic education is the cultivation of human sensibilities within a social context, even in the case of the experience of a solitary individual; otherwise it would be some sort of solipsism. As McClary argues, the perception of music is not some

²⁷ These definitions are paraphrased from Nita Temmerman, "The Philosophical Foundations of Music Education: The Case of Primary Music Education in Australia", *British Journal of Music Education* (1991), 8, 151-152.

transcendental, purely cerebral exercise - if indeed such a thing is conceivable - but a physical/emotional/spiritual experience. Even if the issue is appreciation of structure, it is not structure itself but appreciation of this which is pertinent to education.

Conclusion

Feminist musicology, then, challenges music educators to examine not only how music is taught and to whom, but the actual discourse of music itself. The resulting insights into how music works as a powerful social force carry with them the need for responsibility in its use. The creation of a place for valuing the feminine should enable the development of a more fully interactive model of music education, a fruitful engagement between people and music which renders the intrinsic/extrinsic dichotomy irrelevant. The expression through music of women's "ways of knowing" may, if allowed enough space to flourish, prove to have a profound effect on the future of humanity.

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Assessing Creativity Through Improvisation: A Study of High School Instrumentalists Ability to Improvise

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Abstract

This paper outlines the development of a test to measure the improvisational ability of high school instrumentalists. In the study 101 high school clarinet and trumpet students completed a researcher designed Test of Ability to Improvise (TAI). The test consisted of seven items in which subjects were asked to improvise in a variety of 'stylistically conceived' and 'freely conceived' idioms. The assessment criteria used to evaluate the improvised responses expand the work of previous research and identify four evaluative criteria useful in determining the quality of an improvised performance.

The study aimed to clarify relationships between improvisational ability and other variables which included performance proficiency, gender and instrument. Performance proficiency was determined by results in an Australian Music Examinations Board (AMEB) examination, completed around the time subjects were individually administered the TAI.

Results suggest that improvisational ability is not significantly correlated with performance proficiency in the beginning stages of development, whereas choice of instrument does seem to have some impact. For more advanced musicians, improvisational ability is significantly correlated with performance proficiency, and improvisational skill appears to be influenced by prior exposure and interest in singing, mental rehearsal and the learning of an additional instruments, particularly piano. Subject reports of frequency of improvising were also significantly related to improvisational skill.

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Classroom teaching has an extensive literature showing the benefits of improvisation. There is widespread consensus that improvisation can enable, strengthen and facilitate the development of musical skills and understandings. Recent publications from a variety of sources support this assertion (see, for example, Booth, 1988; Burns, 1988; Gordon, 1989; Kuzmich, 1988; Peggie, 1985; Webster, 1988).

Whereas classroom methods of instruction show strong support for improvising, the situation in instrumental instruction is not so clearly defined. An investigation of the most popular instrumental band methods (e.g., Yamaha Band Student, 1989; Best In Class, 1982; Learning Unlimited Class Series, 1973; Belwins Comprehensive Band Method, 1989) used throughout the world shows that typical instrumental instruction is characterised by visually oriented re-creative tasks, and an almost total reliance on note reading. Yet, despite the reliance on notation evident in these and other beginning instrumental tutors, some contemporary authors (e.g., Froseth, 1984; Kohut, 1985; Schleuter, 1984; Suzuki, 1983) advocate techniques commonly associated with classroom music instruction. These authors recommend the use of rote teaching methods, playing by ear, improvisation and other forms of aural performance.

The underlying concern of this study is the dilemma we face in instrumental teaching between the constraints of teaching for performance success and those of teaching for musical understanding and appreciation. Cziko (1988) elaborates on this dilemma by distinguishing between the student who is 'truly musical' as opposed to 'musically trained'. This distinction compares a training process primarily based on music reading and technical mastery, with that of a broader approach encompassing such creative activities as improvisation (see also, Aranosian, 1981).

While recent publications (Froseth, 1984; Grunow, 1988; Kohut, 1985; Schleuter, 1984) stress the importance of aural forms of performance, research is yet to clarify the cognitive processes involved when improvising, the developmental patterns associated with this ability, and the teaching and learning techniques appropriate for each stage of

development. We know very little about how students develop improvisational skills, which factors impact on their development, which developmental trends exist, if any, and how they may be most effectively trained.

Purpose of the Study

The purpose of this paper is twofold. First, the paper describes a method of assessing improvisational responses in a study involving 101 high school instrumentalists. Second, the paper provides a discussion of the correlates of improvisational ability with a number of variables which include gender, instrument and performance proficiency as assessed in an Australian Music Examinations Board (AMEB) performance examination.

Method

Subjects who participated in the study were 101 high school aged instrumentalists undertaking AMEB performance examinations. The AMEB is an external examinations body, in many ways similar to the Associated Board of the Royal Schools of Music and Trinity College examinations of the United Kingdom.

AMEB examinations require the performance of technical work which includes scales and arpeggios, studies, prepared pieces with piano accompaniment, sight reading, plus a short aural test and questions on the pieces studied for the examination. Many students in Australia undertake AMEB examinations each year and progress through the beginning levels (i.e., grades 1 to 4) to the developing levels (i.e., grades 5 to 8), and finally onto the advanced diplomas (i.e., Associate & Licentiate).

Like other external examination bodies, AMEB tests have been refined over many years. Examiners conducting these examinations are specialists on the instrument who undergo formal accreditation and training before employment. Because students perform works from a set syllabus there is consistency in the manner in which these examinations are conducted. In addition, the workshops and yearly training sessions for examiners attempt to maintain standards and guarantee acceptable levels of interjudge reliability. Results in these examinations provide an effective means of measuring overall ability, and were used in this investigation to determine overall performance proficiency.

Selecting the Sample

Subjects were selected from a randomised list of teachers submitting students for AMEB examination in the second half of 1990. Step one involved identifying all teachers who were preparing students for examination on trumpet and clarinet. A randomised list of AMEB teachers was collated and teachers were approached to allow their students to

complete the test. The 54 clarinet and 48 trumpet students who participated were evenly distributed among the upper beginning stages (i.e., AMEB grades 3 & 4) and lower developing stages (i.e., AMEB grades 5 & 6) of the AMEB grade levels. There was a relatively even distribution between instrument, gender, and levels of achievement as assessed in the AMEB examination. Included in the study were 54 subjects from the Sydney metropolitan region and 47 subjects from other parts of the state of New South Wales.

The study was confined to an investigation of students learning trumpet and clarinet for the following reasons:

1. Restricting Playing Experience: Because a certain degree of physical development is needed students normally start these instruments during their elementary school years. Consultation with teachers (both private and school), examination of school instrumental programs, and analysis of applications for AMEB instrumental examinations suggests that the most common age for beginning instrumental instruction on these instruments is in school grades 4 or 5 (sometimes 6). This is in contrast to students of other instruments (e.g., strings and piano) where there is often a greater range of starting points.
2. Restricting Technical Problems: Both clarinet and trumpet are B flat instruments with similar technical requirements in AMEB examinations. Consequently, items for the improvisational test could be standardised to use identical key, range, and technical requirements.
3. Fingering System: The clarinet has a somewhat 'organised' fingering system, while the trumpet, with its three valves, is less 'logical'. Some authors (e.g., Thackray, 1978) believe that an instrument's fingering layout and feel "constitute valuable visual, tactile and kinaesthetic aids to aural perception" (p. 279). The choice of trumpet and clarinet thus enabled the 'organised' fingering system of the clarinet to be compared with the somewhat 'arbitrary' fingering system of the trumpet.

Subjects chosen for study were all undertaking performance examinations in AMEB grades 3, 4, 5, or 6. These grades were chosen as they are the most common grades undertaken by high school students, and also because the investigation aimed to contrast the abilities of students in school grades 7 to 9 (i.e., ages 12 to 15) undertaking AMEB grades 3 and 4, with those in school grades 10 to 12 (i.e., ages 15 to 18) undertaking AMEB grades 5 and 6.

Development of the Test of Ability to Improvise (TAI)

During a carefully organised period of field testing and analysis, a 7 item measure was constructed employing 5 different types of musical tasks. These tasks were identified after an extensive investigation of research studies and pedagogical literature, and interviews with expert improvisers and experienced music teachers.

The two items which begin this test are entitled Closing Phrase and require the subject to provide an appropriate 'answering' phrase to a given four measure 'question' phrase. The next item, Rhythm, provides a rhythmic pattern in 4/4 time and the subject is asked to improvise an interesting melody in the set key using only the durations of this rhythm. The next two items, Motif 1 and Motif 2, supply the opening figure of a melody which the subject is asked to use as the basis of an improvisation of at least 8 measures in length. They are encouraged to repeat the motif, to vary it, and to develop it during their improvisation. The sixth item, Accompaniment, provides a simple accompaniment (using chords I, ii, V) and the subject is asked to improvise an interesting melody that captures the style of the recorded piano accompaniment. The final item, Freely Conceived, allows the subject to perform an extended improvisation. Whereas the first 6 items on the test measure ability to conform to a stylistically determined idiom, this final item does not set any parameters or give any indication of what is expected. Players were encouraged to perform in any style or mood they choose and to let their musical imagination 'roam freely'.

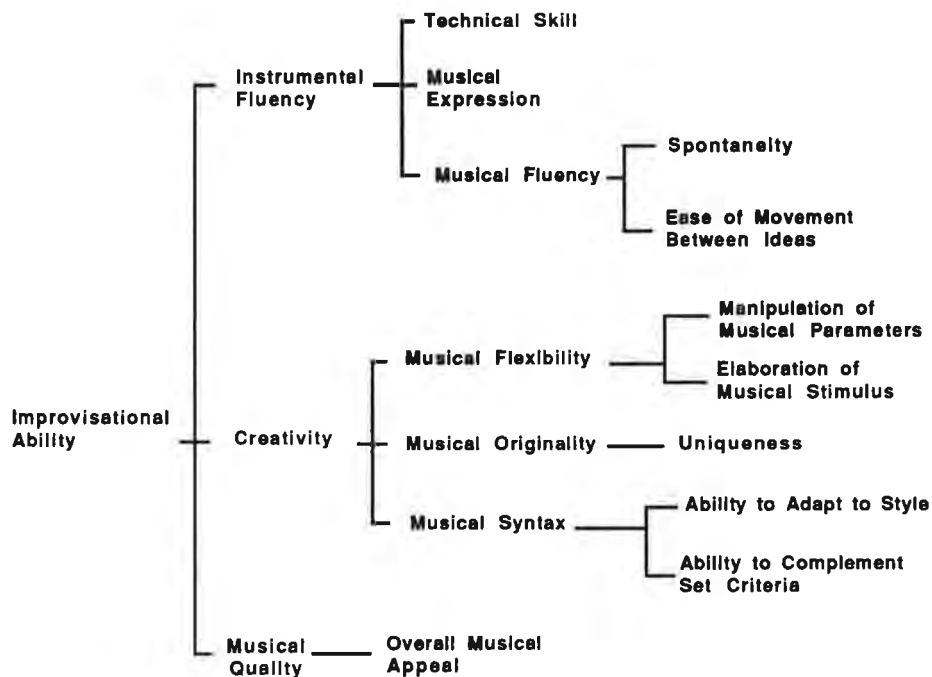
Assessing the 101 Student Improvisations

The development of the assessment criteria was modelled on Webster (1977, 1987, 1989) and Gorder (1976, 1980), although the assessment dimensions used here expand the criteria used in previous studies which have focussed on creativity in terms of divergent thinking capabilities in both musically trained and untrained students. Interviews with expert improvisers and experienced teachers confirmed the view that assessment of an improvisation should go beyond the dimensions of divergent thinking and creativity, and include other considerations such as musical expression, instrumental fluency and a global indication incorporating a personal judgement of the musical appeal of the improvisation.

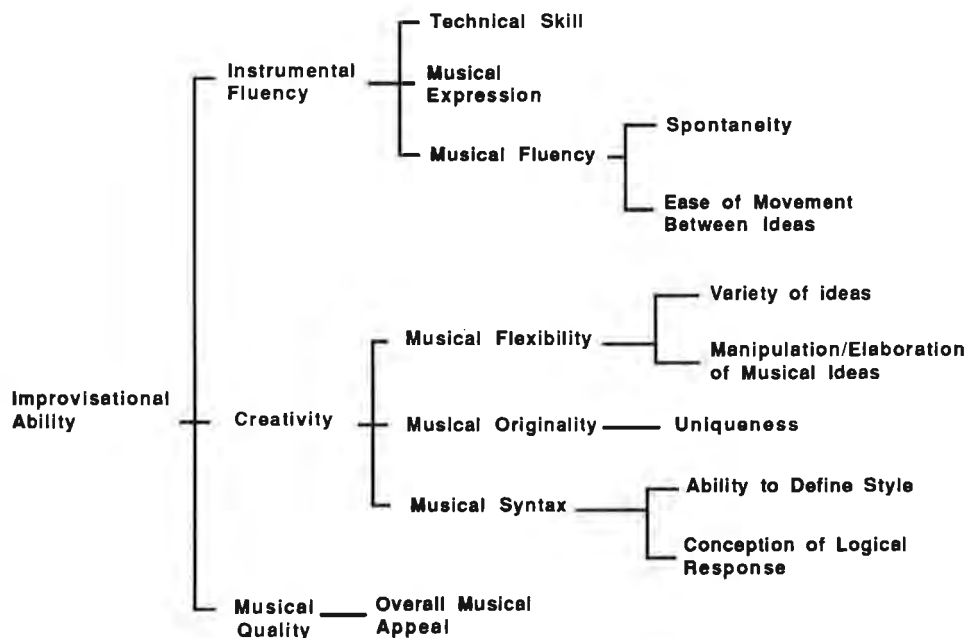
Figure 1 provides the flow charts of criteria used to assess each improvisation in the 'stylistically conceived' (i.e., items 1-6) and 'freely conceived' (i.e., item 7) sections of the measure.

Figure 1 **Flow Chart of Evaluative Dimensions for Test of Ability to Improvise**

Stylistically Conceived Evaluative Dimensions



Freely Conceived Evaluative Dimensions



Three judges undertook training to familiarise themselves with the evaluative criteria shown in Figure 1 and used five point rating scales to assess each of the essential criteria as follows:

Instrumental Fluency	Hesitant & Laboured 1 2 3			Spontaneous & Confident 4 5	
Musical Syntax	Illogical 1 2 3			Logical 4 5	
Creativity	No Uniqueness 1 2 3			Marked Uniqueness 4 5	
Musical Quality	Unappealing 1 2 3			Appealing 4 5	

The responses for each subject were taped and then transferred onto master tapes which stored performances for each item on the TAI. Evaluation was over two separate hearings; for the first playing the 3 judges scored the Instrumental Fluency and Musical Syntax dimensions, on the second playing they scored Creativity and Musical Quality.

Reliability of the TAI

Results show high interjudge reliability coefficients for all items on the test. Interjudge correlations range from .71 to .94 for the four separate evaluative criteria and from .89 to .97 for the composite marks for each individual item. The mean score was 240.42, with a range of 303 (99-402) and a standard deviation of 63.04. These figures convert to a mean of 47% with a standard deviation of 18.8. The highest score was 402 (95%) and the lowest 99 (5%).

The Cronbach alpha indication of internal consistency for the TAI was a healthy .90 (Standardised alpha .90). Of interest were the relatively high correlations (.55 to .66) between the 'freely conceived' item and the 6 'stylistically conceived' items of the TAI.

Results

Statistical analysis was completed according to the two identified groups i.e., Group 1: Performance Proficiency as assessed by AMEB, grades 3 & 4 (ages 12 to 15); Group 2: Performance Proficiency as assessed by AMEB, grades 5 & 6 (ages 15 to 18). As expected, the older, more experienced musicians improvised much better than their younger counterparts. The mean score for Group 1 was 201 (35%) compared to Group 2 which was 284 (60%). Table I shows additional statistics according to the two groups.

Table I: Summary Statistics

	Group 1 (AMEB 3/4)	Group 2 (AMEB 5/6)
Correlations		
Test of Ability to Improvise (<u>TAI</u>)	.18	.47**
Creativity	.20	.38**
Musical Syntax	.17	.51**
Instrumental Fluency	.16	.45**
Musical Quality	.16	.43**
Oneway ANOVA	Group 1 <u>TAI</u>	Group 2 <u>TAI</u>
Questionnaire Information	F Prob.	F Prob.
Gender	.850	.060
Instrument (Clarinet/Trumpet)	.003**	.949
Age	.148	.668
Average Daily Practice	.331	.365
Early Exposure to Music	.063	.119
Total Period of Training	.157	.345
Amount Private Lessons	.056	.867
Period Studied Cl/Tr	.901	.257
Participation in Ensembles	.924	.284
Learning another instrument(s)	.121	.000**
Report of Frequency of Singing	.098	.014*
Report of Frequency of Improvising	.015*	.029*
Report of Frequency of Mental Rehearsal	.362	.015*
<i>Sample Number</i>	53	48

Questionnaire Information: Brackets indicate method of raw data entry. Age (months); Average daily practice (minutes); Early exposure to music (1=started music instruction after age 9, 2=began instrument at or before 8, 3=began at or before 8 and exposed to other musical experiences); Total period of training (months); Amount of private lessons (months); Period Studied Cl/Tr (months); Participation in ensembles (number of ensembles presently playing with); Learning another instrument (0=no other instrument, 1=learning another instrument which was not piano, or learned piano previously but not at time of study, 2=presently learning piano); Report of frequency of singing (20 point rating scale for frequency of singing in school lessons, choirs, by themselves, with friends and in instrumental lessons); Report of frequency of improvising (1=never, 2=rarely, 3=sometimes, 4=often), Report of frequency of mental rehearsal i.e., practice away from instrument (e.g., inwardly rehearsing music by silently fingering the music through: 1=never, 2=rarely, 3=sometimes, 4=often).

NB: For oneway analysis of variance variables were separated into Low (bottom 25%), Medium (middle 50%) and High (top 25%) groupings.

* = Significant level $p < .05$ ** = Significance level $p < .01$

Performance proficiency was more highly correlated with improvisational ability for Group 2 (.47) than for Group 1 (.18). Closer inspection shows that these correlations are consistently lower for each of the four evaluative criteria for Group 1, and that the lowest correlation for Group 2 occurs for the dimension of Creativity. For Group 2 the total TAI score and each of the four criteria are statistically significant at the .01 level.

As part of the study subjects completed a questionnaire aimed at identifying factors which would assist the researcher to interpret the results. Investigation of each of the

questionnaire variables together with gender and choice of instrument revealed univariate differences but no multivariate differences.

Oneway ANOVA procedures for Group 1 show significant differences between improvisational ability and choice of instrument ($F_{1,51}=9.84$, $p<.005$) and report of frequency of improvising ($F_{2,50}=4.59$, $p<.05$). Clarinetists in Group 1 scored significantly higher on the TAI and each evaluative dimension than did trumpeters. The mean score for clarinetists was 40% as compared to trumpeters whose mean was 29%. These results were consistent when analysed according to gender and instrument (female and male clarinetists both scored 40%; male trumpeters 30%, and female trumpeters 28%).

For Group 2 ANOVA procedures show a significant differences between improvisational ability and learning another instrument(s) ($F_{1,30}=16.69$, $p<.001$), as well as reports of frequency of singing ($F_{2,45}=4.69$, $p<.05$), improvising ($F_{2,45}=3.83$, $p<.05$), and mental rehearsal ($F_{2,45}=4.65$, $p<.05$). Although not significant, the average score for females on the TAI was slightly higher than for males (63% for females compared to 55% for males). For this sample, females were also more likely to sing ($F_{1,46}=11.64$, $p<.005$), play another instrument(s), particularly piano ($F_{1,46}=8.44$, $p<.01$), and mentally rehearse music ($F_{1,46}=6.28$, $p<.05$). Males, on the other hand, reported they improvised more often ($F_{1,46}=5.68$, $p<.05$).

Conclusions

The results of this study suggest that performance proficiency on a musical instrument is not significantly correlated with improvisational ability during the beginning stages of development. There appears to be no difference in ability between male and female subjects, but kinaesthetic factors, such as the organised fingering system of the clarinet, does seem to influence improvisational ability.

As a musician develops skill on an instrument and enters a more advanced stage of development performance proficiency and improvisational ability become much more intertwined. It is possible that learning another instrument, mentally rehearsing music, and participating in various forms of singing activities all act to strengthen an ability to 'think in sound' and thereby to improvise musically.

Consequently, a productive area for future research appears to be the influence on improvisational skill of activities such as singing, mental rehearsal and learning other instruments. These may well provide valuable clues into the ways musicians refine their

perceptual abilities and develop the skills necessary to transfer what they hear inwardly into the instrumental fingerings needed to execute these thoughts.

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Appendix A

Additional Findings

Summary of analysis of transcriptions of the improvised responses and work with individual subjects:

1. The Scheffé multiple comparison procedure shows that second performances on the six 'stylistically' conceived items of the TAI were not statistically significantly better than first attempts.
2. The best improvisers were characterised by their ability to commence their performance with an overall strategy or plan.
3. The worst improvisers worked at a conscious level, not yet having assimilated the technical, aural, kinaesthetic and theoretical aspects of their playing.
4. Better improvisers performed with technical control and theoretical understanding of the requirements of the task. However, a distinguishing characteristic of the very finest improvisers was their ability to reach out beyond the norm to provide a response which was unique or novel. Examples of 'stretching out' were seen in the wider choice of starting notes, the more sophisticated sense of shaping, greater use of expression and tone colour, and an intuitive feel for the harmonic implications of the response. The integration of each of these aspects helped to make these responses unique.
5. There was evidence in the Rhythm item that translating the visual notation into an aural image clearly impeded fluency and spontaneity. This is similar to observations by jazz educators who comment that improvisation by sight stifles creativity and instrumental fluency.
6. The best responses for the Freely Conceived item came from subjects whose first idea provided the basis or 'spark' to ignite their imagination and provide coherence to the rest of the improvisation. Typically the better the quality of opening statement the better the overall performance. Also of critical importance to an effective performance was the ability of the improviser to sustain the flow of ideas, to connect ideas, and to end their performance musically and with a sense of finality.
7. Gender differences on the Freely Conceived item: Female subjects often played moody, 'atmospheric' improvisations which tended to be slow and have more space and rests. Some were free in style, displaying a sophisticated sense of phrasing and time. Some of these responses showed the influence of prior exposure to composition experiences in classroom elective music classes. Male subjects on the other hand, were more likely to provide more outgoing, faster and busier improvisations than females. Many of these performance used a jazz or 'pop' idiom and were more like the improvisations one would expect in a stage ensemble performance of a jazz or rock arrangement.
8. Instrumental differences: Clarinetists were more likely to use a wider range, employ wide leaps and use other idiomatic devices typical of performance on this instrument. Likewise, trumpeters compensated for the difficulty in playing in the upper register by using such idiomatic devices as glissandi, trills, flutter-tonguing, and double and triple tonguing.

Appendix B

Test of Ability to Improvise Scoring Guidelines Stylistically Conceived Items © Gary McPherson, 1990

Circle a number from 1 to 5 that indicates your rating for each of the assessed categories. Judgements should be made relative to one another and not according to absolute criteria. Base your evaluation on the following criteria.

Instrumental Fluency: Ability to execute musical ideas clearly and accurately. It includes the ability of the improviser to respond freely to musical ideas and to perform with technical skill and musical expression. It is demonstrated in the extent to which the improviser can perform in a spontaneous manner, moving easily from one musical idea to another.

Musical Syntax: (Consistency of Style): Ability to organise musical material by adapting to the prevailing style and complementing a set criteria. The task of the improviser is to provide a response that is inherently logical and which makes musical sense. Musical syntax is demonstrated in the degree to which the improvisation demonstrates rhythmic feel, melodic sense, tonal organisation, and shape (i.e., phrasing and form).

Creativity: Ability to think divergently, as demonstrated in an original and imaginative product. This is evaluated through an analysis of:

1. Musical Flexibility: the extent to which the improviser can manipulate musical elements (e.g., pitch, rhythm, articulation) through an elaboration of the musical stimulus (i.e., phrase, rhythm, motif, accompaniment).
2. Musical Originality: the extent to which the improviser can provide a musically unique or unusual response. A unique or unusual response may result from the manipulation and/or elaboration of pitch (e.g., use of sequence, diminution, inversion) or rhythm (e.g., augmentation, diminution, dotted versus undotted, metric versus syncopated), or other musical elements (e.g., timbre, articulation, dynamics).

Musical Quality: (Overall Musical Appeal): Ability to perform fluently creatively conceived material to complement existing musical criteria or constraints. This is a global rating indicating your assessment of the overall musical appeal of the improvisation. It should indicate the extent to which a committed performance, played expressively and in a musically meaningful and creative manner, was achieved.

Assessment Rating Scales

Instrumental Fluency	Hesitant & Labored	1	2	3	4	5	Spontaneous & Confident
Musical Syntax	Illogical	1	2	3	4	5	Logical
Creativity	No Uniqueness	1	2	3	4	5	Marked Uniqueness
Musical Quality	Unappealing	1	2	3	4	5	Appealing

Test of Ability to Improvise
Scoring Guidelines
Freely Conceived Items
 © Gary McPherson, 1990

Circle a number from 1 to 5 that indicates your rating for each of the assessed categories. Judgements should be made relative to one another and not according to absolute criteria. Base your evaluation on the following criteria.

Instrumental Fluency: Ability to execute musical ideas clearly and accurately. It includes the ability of the improviser to respond freely to musical ideas and to perform with technical skill and musical expression. It is demonstrated in the extent to which the improviser can perform in a spontaneous manner, moving easily from one musical idea to another.

Musical Syntax: Ability to organise musical material in a freely conceived idiom. The task of the improviser is to provide a response that is inherently logical and which makes musical sense. Musical syntax is demonstrated in the degree to which the improvisation demonstrates rhythmic feel, melodic sense, tonal organisation, and shape (i.e., phrasing and form).

Creativity: Ability to think divergently, as demonstrated in an original and imaginative product. This is evaluated through an analysis of:

1. **Musical Flexibility:** the extent to which the improviser can generate differing musical ideas, and manipulate/elaborate these ideas during the course of the improvisation.
2. **Musical Originality:** the extent to which the improviser can provide a musically unique or unusual response. A unique or unusual response may result from the manipulation and/or elaboration of pitch (e.g., use of sequence, diminution, inversion) or rhythm (e.g., diminution, augmentation, dotted versus undotted, metric versus syncopated), or other musical elements (e.g., timbre, articulation, dynamics).

Musical Quality: (Overall Musical Appeal): Ability to perform fluently creatively conceived material in a freely conceived idiom. This is a global rating indicating your assessment of the overall musical appeal of the improvisation. It should indicate the extent to which a committed performance, played expressively and in a musically meaningful and creative manner, was achieved.

Assessment Rating Scales

	Hesitant & Labored			Spontaneous & Confident	
Instrumental Fluency	1	2	3	4	5
	Illogical			Logical	
Musical Syntax	1	2	3	4	5
	No Uniqueness			Marked Uniqueness	
Creativity	1	2	3	4	5
	Unappealing			Appealing	
Musical Quality	1	2	3	4	5

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The comparative influence of informal and formal environments on the creative processes and products of young children.

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A review of research in music and the young child reveals that some studies focus on what Carol. R Scott termed music productive behaviours such as singing, rhythmic movement or playing of instruments, while other studies addressed issues of a cognitive-developmental nature and the affective component (Scott, 1989: 75).

Though this research of young children's development is mainly descriptive using observational techniques, some of the fruits of these studies have led to a greater refinement of theories which illuminate the nature of that growth and development.

One of the major research questions is the relation of musical responses to influential factors such as environment, parenting, intelligence, social class and race. In elaborating on the aspect of environment, Peter Webster for example draws attention to the non-musical variables that contribute to an environment in which creative thinking may occur. These environmental influences include motivation, subconscious imagery, personality and environment. (Webster, 1989: 68-9). Expanding this final factor he emphasises financial support, family conditions, musical instruments, acoustics, media, peer pressure and societal expectations which impact on both divergent and convergent thinking of the creator (Webster, 1990: 24).

Though these studies would appear to suggest a positive correlation between a stimulating and warmly encouraging environment and certain musically productive responses, any conclusions are still tenuous at best.

It is my intention to trace the unfolding musical development of young children aged 3-8 years, through their interactions within a variety of environmental settings, their musical cognition processes and their spontaneous improvisations to final composition progress. These settings contrast the informality of the home and play,

through the more formal environments of community groups, preschool and Infant school departments. Incidental reference will be made to the richer and wider context of some fascinating cross-cultural studies which examine the effects of informal and formal education on musical creativity. Finally, some implications for program planning will be suggested.

What is understood by environment and culture? "Learning environments are made up of people, sounds, objects and ideas" (Andress, 1992: 1) while also incorporating geographical locations. I have adopted Catherine Ellis's definition of culture as "that body of learning which is presented to the child initially from the environment, and which is later developed within the confines of this initial set of perceptions." (Ellis, 1982: 14).

Acknowledging that toddlers and infants are both creative and imitative, we can compare the role of cultural values in encouraging creativity through observation of an intriguing study by Greenfield (1982). She hypothesised "that trial-and-error learning may be associated with a greater transfer of skill to new tasks than errorless learning." Greenfield looked at novice girl weavers of the Zinacantan tribe of Mayans living in Mexico. Their acute perceptual awareness and clear representations of the finished product aided by expert teachers to immediately correct mistakes, allowed the girls to proceed in relatively errorless fashion. However, they are *unable to transfer* those skills to *novel patterns*. (my emphasis)

→ The girls in the Ibo tribe of Nigeria showed that they learn largely through play, a trial-and-error process where they are given small looms and scraps of cloth or grass to weave alone, with no teachers hovering. "When they are given their real looms they finish *by creating original designs*." (Greenfield in Scott, 1987: 17) (my emphasis).

In the early development of children, we are aware that the cognitive and affective components are influenced by domestic, school, cultural, peer and environmental factors. Scott's cross-cultural studies show that communication between infants and parents, through the verbal realm of babbling, imitation and inflected sounds, through cultural tasks such as memorising chants, map-reading, sorting rice and weaving, and finally through examining the varying effects of informal and formal education, are reflective of the cognitive demands of these tasks, with their subsequent effect on perceptual and cognitive development (Scott, 1987: 16).

In one study, Greenfield and Lave (1982) have included the following model of some idealised characteristics of informal and formal education, which affect enculturation in different cultures.

INFORMAL EDUCATION	FORMAL EDUCATION
1. Embedded in daily life activities.	1. Set apart from the context of everyday life
2. Learner is responsible for obtaining knowledge and skill.	2. Teacher is responsible for imparting knowledge and skill.
3. Personal; relatives are appropriate teachers.	3. Impersonal; teachers should not be relatives.
4. Little or no explicit pedagogy or curriculum	4. Explicit pedagogy and curriculum.
5. Maintenance of continuity and tradition are valued.	5. Change and discontinuity are valued.
6. Learning by observation and,	6. Learning by verbal interchange,
7. Teaching by demonstration.	7. Teaching by verbal presentation of general principles.
8. Motivated by social contribution of novices and their participation in adult sphere.	8. Less strong social motivation.

(Greenfield and Lave, 1982)

This has some similar features to Benjamin Bloom's study of the early training of exceptional children which contrasted the home environment of such children with traditional educational philosophy and methods in schools. (Bloom, 1981:160).

HOME	SCHOOL
Informal, exploratory "play".	Serious, formal.
Individualised with praise and rewards.	Minimum of individualised objectives and programs.
Attempts encouraged in graduated levels of accomplishment in a specialised area.	Provision of broad base with little specialisation.
Purpose and development clear with motivation complete tasks.	Learning has little meaning.

(Bloom's Study of Exceptional Children, 1981)

Above all, Bloom's study showed that the parents had a strong interest in a specified area: sculpture, swimming, piano playing, tennis, mathematics and neurology, and were themselves above average in the skill.

If we turn now more specifically to the variable of home environment and parenting, we can affirm the close connection between feelings, ideas and attitudes which are embedded by the synergy of the young child, parents and musical experiences. As Phyllis Wilkin aptly describes this: "One has only to watch the mothers and babies singing and playing together to see how the one stimulates the other, and *the role of*

instigator turns back and forth between mother and baby." (my emphasis) (Wilkin, 1983: 35). She elaborates the value of play "as a means of discovery; it is also voluntary, unguided, spontaneous, pleasurable and actively participated in by the child (Ibid, 1983: 34). This physical activity within symbolic play generates prolific amounts of spontaneous music, according to earlier studies by Moorhead and Pond (1978: 34) who encouraged the belief that "children need freedom to move, freedom to play instruments, freedom to make choices and freedom to construct sounds." As a result, children become completely "tuned in" to their sensory and perceptual world, and may even respond in, what seems to us, an irrational way.

Susan Wright vividly conjures this inner world of the young child's musical awakening amidst an earth-bound environment:

"..... and then I lay down on the grass. I remember feeling the sun on one side of my face and the coolness and trickle of the grass on the other. It was really quiet all of a sudden. You know? There were bird sounds and cricket or bug sounds - probably cicadas, I guess - before. But all of a sudden they stopped. I guess they didn't really stop at all. I was a pretty weird kid.

When you think about it these days, it sort of gives me a funny feeling - spooky - 'cause I remember really clearly that there were sounds - music I mean - coming out of the grass. If you tell people about something like this now, they think you're **on** something - but it really happened."

(Wright, 1991: 141)

Additional to the "external" environmental factors "children bring their own genetic potential that influences the manner and extent of their development" (Buckton and Manins, 1978 in McMahon (1992:16). Carol Scott cites adoptee studies which research the percent of variance in IQ due to genetics. "The actual IQ of adoptees is significantly higher than that of their biological mother's..... and much closer to their adopted mother's. At the same time, the variability in IQ of adoptees is more closely correlated with the variability in the biological mothers..... most psychologists now agree that the research supports about a 50/50 split in influence of environment and genetics on intelligence" (Scott, 1987: 17).

In a recently reported longitudinal study, Youko Minami and Yokiko Umezawa observed spontaneous musical behaviour of two very young girls over a five year period through video and audio tape-recordings and written descriptions. In the context of either infant-mother interactions or individual play, two different improvisatory song processes as well as original songs emerged. The researchers also found that the children were apt to use certain ways of improvisation intensively for a period of time. The play-mood between *infant and mother* was essential for the children to improvise songs, with a lot of give and take on each side. Variations were common. When the children played *by themselves*, they were absorbed in a favourite play activity which included movement (swinging, running), making a story (doll play) or making an original song (and text) at bed time. The researchers concluded that these original songs were the products of repeated experiments

containing specific patterns, both rhythmic and melodic. (Minami and Umezawa, 1990: 131-134).

Barbara Andress also refers to baby talk having "many musical ingredients of rising and falling contours, rhythmic stresses and repetitive patterns" (Andress, 1992: 1), while Janelle Shepherd's research with her own two children makes the point that her children's decisions to sing and improvise were affected by variables such as weather, health state, mood, time of day and degree of tiredness. She concluded also that "singing and speaking for a child are not two very separate behaviours" (Shepherd, 1981: 140). I'll pick up this last point further on.

The crucial developmental question now is "how children's early song outlines gradually approximate towards 'correct' (ie. cultural) melodic structures". (Hargreaves, 1986: 72). If we continue the motif of play in more formal environments such as preschool and Infants schools with adult care-givers, teachers and peers, we can observe how children acquire songs through both improvisatory play and global singing of composed tunes heard in the culture. Andress states:

Children learn through imitation and practice play as they begin to refine their renditions of what is heard. Song making vacillates between the joy of pure play with pitch, rhythm and words to increased precision in imitating the structured songs. Both strands of song making are to be nurtured and valued, for children as performers and creators of music are using critical thinking skills, thus functioning at the highest levels of learning.

(Andress, 1992: 1)

The two strands of song acquisition outlined by Andress are:

Own improvised Vocal Play	Songs of the Culture
<ul style="list-style-type: none"> *own improvisations *vocal sound exploration *voice inflections (vocal glides) *global to specific (pitch matching) *lyrics with little logic *begins to incorporate melodic rhythmic patterns as heard in music of others *creates songs using traditional musical structure: rhyming, phrases, repetition *improvises with awareness of tonality *uses words and logic/sequence 	<ul style="list-style-type: none"> *awareness of songs in culture *attempts performance by: singing global/predictable properties *language acquisition effects responses *lyrics are known first; soon performs reasonable facsimile of rhythm *some knowledge of pitch contour, up and down, local pitch organisation may change with phrase

(Andress, 1992)

At this stage, I've chosen to elaborate only some factors in the children's improvised vocal play, which you will notice are developmental in nature. Other research findings equate with Andress's conclusions.

For example, in global to specific pitch matching, the Boston Project Zero Study over five years recorded the spontaneous output of a small number of young children in a fairly naturalistic setting, coining the term "outline" songs for 2-3 year olds. These involved imprecise pitch relationships and rhythm and vocal glissandi, which gradually progressed to "the singing of discrete intervals, typically small intervals" (Hargreaves, 1986:69).

Dowling's empirical descriptions of the gradual move in early *spontaneous* songs from melodic contour towards more precise features such as tonality and intervals runs parallel to his account of children's *perception* of melodic features imitated from songs heard in the environment. (Hargreaves, 1986:69-70).

While Moorhead and Pond (1978) suggest that rhythm tends to be 'free and flexible' with no consistent beat, Dowling (1984) disagrees since "many of the spontaneous songs in his sample had a steady beat both within and between phrases." He further suggests that "the adaptation of the speech rhythms of the words.... is the main source of rhythmic complexity in these songs." (Hargreaves, 1986: 71).

Patricia Sheehan-Campbell in a review of the child-song genre on seven school playgrounds in Indiana found "that songs *by* children tend to incorporate a greater use of movement, including gesture, hand-claps and dance than traditional songs... for children." (Sheehan-Campbell, 1991: 22). Similarly, Iona and Peter Opie ascribe the lower pitch of game songs to "doing something" and therefore not being bothered with singing as such, "the tunes being a kind of heightened speech" (Opie, 1985: VI).

This aspect of chant, mentioned earlier by Shepherd, continues throughout preschool to school levels, which seemed to alarm or at least intrigue Magda Kalmar's comparative study between Hungarian and Australian children aged 4-7 years, which revealed the effects of age and musical experience on singing improvisations (Kalmar, 1991: 75). After being taught to sing counting-out rhymes, both groups of children were asked to sing the rhymes "in a different way". All the Hungarian children responded by singing the rhymes as "recognisable songs", consisting mainly of the descending minor third interval and other common properties of nursery school songs. Their Australian counterparts mainly chanted the rhymes through a change of tempo, fitting in new words, varying the rhythm or articulation. Even when asked to sing a favourite song and to sing with the experimenter, the Australian children also chanted. (Kalmar, 1991: 82Z).

However, Hazel Hall in her study, concluded that although some tunes, especially skipping-rope chants clearly evolved from spoken intonation, others were not "speech born". For some of the songs a developmental approach was not always applicable. "They are part of a general continuum of children's music, ranging from casual speech to song" (Hall, 1986: 49, 54).

In a detailed study of play-songs by Aboriginal children, Margaret Kartomi asserts "that the melodic line is subservient to the rhythmic characteristics" (Kartomi, 1990: 5).

The move from "lyrics with little logic" to words with "sense and sequence", and their subsequent impact on both melodic and rhythmic aspects, is significant. Children often create songs about their pleasant and unpleasant feelings, mostly in the essential privacy of the schoolyard, home, neighbour's home, parks and playgrounds. Some play songs last for years while other spontaneous texts change from place to place and over time, such as the Pitjantjara songs featured in Kartomi's research. Further, she indicates that the "relatively unsubtle nature of most of the play song texts partly determines their musical characteristics." (Ibid, 1990: 4)... "The universal child-like characteristics of play song texts are brevity, reflectiveness, directness of sentiment and humour." (Ibid, 1990: 4).

The nexus between children's early song inventions and approximations toward culturally modelled melodic structures has been pursued with vigour by researchers. The seminal work of Moog (1976) differentiated between spontaneous, imitative and imaginative songs. The latter categorisation referred to partly spontaneous and partly known snatches of songs. During their fourth year, children mixed-up, altered, took apart and refashioned the words, melodic fragments and rhythms of songs, interspersed with "original ideas" (Moog, 1976: 115). He termed these extensions as "pot-pourri" songs.

There are detailed examples of the coalescences between what some researchers term standard and spontaneous songs in the child's repertoire with Hargreaves (1986), McKernon (1979) and Winner (1982) and the Boston group viewing the development of standard and spontaneous songs as being "roughly parallel"... with a considerable proportion of common elements. (Hargreaves, 1986: 74). Dowling (1984) disagrees; he places much more emphasis on the integral role of spontaneous song patterns.

Kartomi believes that songs by children created for individual and group play are distinctive and universal to all cultures. They share a "common approach to rhythm, formal structure, textual form and content and performance style." (Kartomi, 1990: 2) She makes the telling point about childrens' distinctive style of singing in communal play for example as "often chesty, forceful, vigorous or sometimes soft and meditative." (Ibid, 1990: 2).

Finally, though at or beyond the age limit being considered, there is a well-detailed characterisation of the compositional strategies used by 60 school-based children aged 7, 9 and 11 years by John Kratus. He considered among other results, "the subjects who composed the most successful songs were found to use a variety of exploring, developing and repeating strategies as they composed." (Kratus, 1991: 95).

In summary, we can see the preceding relations between cognitive growth and creative expression in different environments, as reflected in Swanwick and Tillman's study of musical composition. This suggests a set of qualitatively different levels of musical understanding, mapping childrens' developmental shift from an absorption with their own exploration of materials through improvisation to a reflection on materials in self-aware solutions of self-imposed problems and finally, to an appreciation of tradition and the social aspects of their work. (Swanwick & Tillman, 1986: 305-339).

What are some pragmatic classroom approaches which support one learning theory described as "the accumulation of behavioural responses to environmental stimuli, learnt as a result of differential patterns of reinforcement?" (Hargreaves, 1986: 12). Howard Gardner promotes a continuation of activities which encourage experimentation, and by providing an environment rich with possibilities of sound. Among numerous and specific strategies based on the open curriculum, motivators, play and self-satisfaction, are group experiences. "In early group experiences, students will need more guidelines from the teacher.... while at other times they will function best when no parameters are given, eg. provide a rhythm from which to create a simple melodic ostinato; later they may prefer to freely improvise their own rhythms with the melodic pattern." (Moore, 1990: 39).

Andress employs three approaches in affording effective musical play which will meet the needs of these diverse young learners:

Permeable Interaction where music is used to clarify or better express ideas important in other curricular areas, eg. Ride a Train. 2. Special Interest areas are used to initiate musical understandings and are entered into as a result of the child's choice, eg. improvising on chime bars. 3. Finally, Andress suggests Guided Group Play involving children in larger group plays in which the social sharing of music and working together are explored, eg. "I like you." (Andress, 1992: 1).

Further, "The hands-on approach used in all three delivery strands meet each child's need to explore, manipulate and construct relational schemes which lead to their understanding of how music is and will be a part of their lives." (Ibid, 1992: 1).

Hence a strong emphasis on "the developmental appropriateness of the curriculum, the suitability of the learning environment and the use of teaching strategies designed to facilitate learning." (Culbert, 1988: 82), may well lay the foundation of the key competency of Problem Solving (Finn, 1991: 6) if initiated in creative musical experiences during early childhood programs. For there are doubtless many children with the same *potential* as those gifted and talented achievers in Bloom's study, but they are lost to the community because in the home, community and schools environment they do not have the nurturance and experience of vital relationships. As a result, we tend to shape children who weave the replicated patterns of the Mexican girls, rather than those of the Nigerian girls, who create their original designs.

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