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PREFACE

It is only fitting in introducing this collection of papers to express gratitude to Dean Rosa Bruno-Jofré, who has funded and supported the Graduate Students in Education Symposium since her arrival at Queen’s Faculty of Education, and to the graduate students who make this event possible. The students not only write the papers that appear in this volume, but they also plan and organize the Symposium each spring. The current volume contains papers presented at the Symposium held in April 2003 and the April 2004 Symposium. In April 2003, the graduate student chair was Marlene Schellenberg, while in April of 2004 Elsa Mihotic served as the chair. Each graduate student chair has been ably assisted by about 15 student colleagues who have planned the structure of the symposium, requested and reviewed the proposals, and developed the program for the event. The only task left to the Coordinator of Graduate Studies and Research is to edit the Proceedings.

Following the event, graduate students are invited to submit their conference papers, which are subsequently sent out to review by researchers across the country. These reviewers are informed that the authors are graduate students, but are asked to conduct a rigorous review as they would for a peer-reviewed journal. As a result, some students are asked to make revisions and others are notified that, based on the reviewers’ recommendations, their papers have not been accepted. The papers published here were recommended for publication through this blind review process.

The challenge with a set of papers like this is that the only unifying theme is the graduate student status of the authors. Some papers reflect student study in the field of Cultural and Policy Studies, while others show familiarity with recent research in Cognitive Studies or Curriculum Studies. Some students offer thoughtful conceptual analysis, while others review recent literature or report on data they have collected. All of the papers demonstrate our graduate students' commitment to education and to educational research in the broadest sense. We, in the Faculty of Education, are unashamedly proud of our graduate students and of
their accomplishments, and we invite you to consider their ideas in this collection of papers from the 2003 and 2004 Graduate Students in Education Symposia at Queen's University.

Nancy L. Hutchinson
Editor
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BRIDGING MORAL AND ETHICAL
POLARITIES IN INCLUSIVE EDUCATION
Derek H. Berg

Two general philosophical positions regarding inclusive education have moved to the forefront of special education discourse since the promulgation of the right to non-discrimination based upon disability. One is a moral doctrinal position advocating full inclusion and contending that integration is necessary to maintain universal norms of nondiscrimination. The other is an ethical position advocating partial inclusion. This latter position argues that exceptional students should receive accommodations specific to their individual needs through a combination of general classroom instruction and specialized instruction within segregated settings. Taken to their individually reasoned ends, these two philosophical approaches represent opposing ideological views and suggest a largely irresolvable debate regarding how exceptional students are best served. This paper proposes that when viewed through Rawls' (1971) and Habermas' (1993, 1996) perspectives, the philosophical underpinnings of these polarities are indeed complementary. Moreover, these polarities are best conceptualized along a bi-directional continuum endorsing both moral doctrine and ethical principles that undergird the notions of equal opportunity and equal benefit.

INTRODUCTION
Students with disabilities have historically been excluded from the general education system (Lupart, 1998). Since the 1980s, however, the rights of students with disabilities have received increased attention. Indeed, with the patriation of the Canadian Constitution in 1982 and its embedded Charter of Rights and Freedoms (hereafter referred to as the Charter) the right to nondiscrimination was ingrained in the fabric of Canadian society (Government of Canada, 1982). Since the promulgation of the right to non-discrimination, advocates for students with disabilities (hereafter termed exceptional students) have lobbied their respective schools and school boards to give these young people access to the general education system. In response, Provincial Ministries of Education throughout Canada have developed and adopted inclusionary policies in attempts to ensure
that exceptional students are provided with access to the public education system in a manner equal to that of their nonexceptional peers.

Initially, inclusion policies consigned exceptional students to one of two school-based placements. Exceptional students were either admitted to (a) a self-contained special education classroom or to (b) shared time between a general education classroom and a special education classroom. Increased student advocacy, which viewed self-contained special education classrooms as analogous to segregation, initiated a move away from placements conceptualized as exclusive toward a focus on partial inclusion and in some instances on full-inclusion within the general education classroom.

From these transformations, two positions regarding the definition and practice of inclusion have emerged. On one side are proponents who contend that exceptional students have an equal right to be educated in the general education classroom with their same age peers. Arguing under the scope of the Charter and federal and provincial human rights legislation, these advocates criticize special education placements that place students exclusively in a special education classroom or partially in a special education classroom and a general education classroom. In response these advocates call for full inclusion of exceptional students within general education classrooms. Proponents for full inclusion argue that segregated settings are inherently discriminatory in that they conflict with the established equal rights decree of the Charter and human rights legislation and, as well, contradict provincial education policy.

On the other side of the debate are those who favour partial inclusion. Proponents of this position align themselves with the view that partial inclusion, and sometimes exclusive placement within a special education classroom, is necessary. In light of the challenges exceptional students face within school, accommodations necessary to support their meaningful participation and advancement within the educational system cannot be delivered effectively solely within a general education system. Rather, a level of segregation is necessary. Exceptional students, it is argued, need to receive curriculum and instruction—academic, social-emotional, and behavioural—adapted to their individual abilities, and such instruction is best delivered through a combination of participation in a general education classroom
and of specialized programs within a special education setting. Given that each exceptional student experiences a different level of impairment (even those with a similar disability, e.g., a reading disability) and that an exceptional student may experience more than one exceptionality (e.g., developmentally delayed and impaired speech), proponents of partial inclusion recognize that for these students the most effective educational context is a segregated placement within a special education classroom or a partial placement between a general education classroom and a special education classroom.

When one observes the arguments advanced by both sides of this debate—proponents for full inclusion and proponents for partial inclusion—it seems improbable for them to meet on a mutually supportive ground. This paradox is explored and a perspective is advanced that suggests that within the field of special education, each position perceives inclusion in terms of equality; however, each position argues for equality from a different conceptualization of equality. At one end are those that support equality based upon ethical principles, and at the opposite end are those that argue for equality based upon moral doctrine. When viewed through Rawls' (1971) and Habermas' (1993, 1996) perspectives, however, the philosophical underpinnings of these duelling polarities are indeed complementary. Moreover, these adversarial positions are best conceptualized along a bi-directional continuum that concurrently endorses both moral doctrine and equity principles that undergird the notions of equal opportunity and equal benefit.

This paper has four sections. In the first section, through an analysis of selective literature that critiques special education policy, a framework is drawn for understanding the two polarities in terms of how these opposing positions view the intentions and observed practices of inclusive special education policy. This section discusses two ideologies—moral doctrine and ethical principles—embedded within arguments for and against full inclusion. These ideologies are offered not only as appropriate methods for explaining emergent polarities, but as well, given that these ideologies can also be placed within a continuum, they offer a suitable foundation upon which to bridge these polarities. This is a bridge that allows both perspectives to maintain allegiance to their respective argument frameworks. The second section presents the Supreme Court of Canada decision Eaton v Brant
Board of Education (1997) (hereafter referred to as the Eaton case). Evidence from the decision is presented that allows one to synthesize the divergent arguments for full inclusion and for partial inclusion in special education placements. This case illustrates how an integration of the frameworks that undergird opposing views on special education placement can be used to meet mutually accepted outcomes of special education policy. The third section offers a conceptual and operational understanding for how one might bridge these duelling polarities. The fourth section discusses the implications of such a framework for special education policy and practice.

DUELLING POLARITIES WITHIN SPECIAL EDUCATION

Smith and Lusthaus (1995) contend that debates surrounding access to education for minority students, whether in terms of inclusion of racial, ethnic, or special needs groups, can be viewed as arguments respecting quality and equality. Dialogue within such debates often results in taking positions at polar opposites on a linear continuum. To move toward one is to move away from the other; when you accommodate one, you do so at the other's expense" (p. 379). Within the field of special education, a similar discourse has arisen regarding the nature of inclusion of exceptional students within schools. Two general views seem to present a dialectical approach and suggest a largely irresolvable debate surrounding whether the needs of exceptional students are best served within a fully inclusive system or within a partially inclusive system. At one end of the continuum are those that argue for equality based upon moral doctrine. At the other end of the continuum are those that support equality based upon ethical principles.

MORAL DOCTRINE FOR FULL INCLUSION

Proponents of full inclusion insist that any policy or practice that restricts full participation in the education system is a violation of an individual's right to nondiscrimination. Arguing from a rights-based perspective necessarily requires that schools judge the merits of inclusion on decisions regarding adherence to fundamental rights and freedoms contained within the Charter. Practice and policy that place exceptional students outside the general classroom, even if for only a minimal part of the day, are
viewed as analogous to a intrusion on the student's rights as stated in the Charter:

15.(1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

Within public education settings, incidents of suspected inequality also fall under the scope of the respective Provincial Education Acts and Ministry of Education documents (e.g., in Ontario the Antiracism and Ethnocultural Equity in School Boards: Guidelines for Policy Development and Implementation, 1993). Provincial education documents observe universally accepted tenets contained within provincial and federal human rights legislation and the Charter. This is a powerful framework because it appeals to shared beliefs and responsibilities viewed as fundamental to the equal protection and equal benefit of individual rights.

When viewed through Habermas' (1993) philosophical lens, the discourse of proponents for full inclusion is analogous to a moral argument (Crux, 1989; Pearpoint & Forest, 1992). A moral perspective positions an individual within the context of maintaining or supporting the common interests of the citizenry (interests such as nondiscrimination), where individual perspectives and needs stem from the common interests of the general public. Habermas (1993) situates a moral doctrine within a framework that "represents the ideal extension of each individual communication community from within. In this forum, only those norms that express a common interest of all affected can win justified assent" (p. 13). In brief, a moral perspective aligns with upholding the common good by assuring that the individual is engulfed by the protection of universal norms while simultaneously enforcing the protection of the common good through maintaining the universality of individual rights by having the individual adhere to those rights. Said differently, the individual is both the product and supporter of their rights.

Under the umbrella of a moral doctrine, full inclusion is predicated upon a rights-based approach; placement of an exceptional student within a segregated setting is an act against that student's human rights. Inequality manifests through unequal
protection of the right to nondiscrimination. The results of this
discrimination are twofold. Placement in a segregated setting is
viewed (a) as restricting an exceptional student's access to the
education system equal to that of his or her peers, and (b) as
withholding the benefits of social and educational experiences that
are offered to the peers.

Policy that supports segregated placements is perceived as
operationalizing inequality. Two principal tenets emerge from this
stance, one premised upon society's view of the student and
another premised upon procedural policies adopted by special
education; both have conceptual and operational elements.
Proponents of full inclusion often argue that labelling students
(e.g., learning disabled) and utilizing alternative instructional
methods in special classes should be eliminated (Pearpoint &
Forest, 1992). For instance, Crux (1989) argued that "labelling a
child as exceptional in some way, we have legalized inequality;"
and "is clearly an example of legalizing the naming of children as
deviant, in order to maintain social control" (p. 25). Labelling is
seen as isolating exceptional students from their peers. Such
practices, it is argued, result in the "transformation of students with
learning disabilities into second-class citizens who are entitled to
something less than other students, or who are thought of by others
as 'less'" (Denti & Katz, 1995, p. 417).

A second perspective put forth by proponents of full
inclusion is that there is an absence of rigour regarding the
decision making process that places students in special needs
classes. For instance, Denti and Katz (1995) argued that "special
educators, for the most part, do not have a critical perspective on
the dominant, taken for granted view of reality that undergirds this
culture, and as a result, are not able to criticize their culture
effectively or change it in fundamental ways" (p. 418). These
researchers suggested that special educators do not take a critical
perspective on issues that challenge their field, and that special
educators should extract themselves from individual contexts and
embrace a generalized perspective of the collective good.

To profess inequality through a blanket application of
equality doctrine places the exceptional student outside his or her
individual experience. Where a moral doctrine is to take
precedence, its intention is to subsume the individual and protect
him or her through a conceptual barrier where the individual is
sheltered from infringements upon the right to equality of access
and to equality of the educational benefits full inclusion provides. By privileging decisions for full participation, advocates for full inclusion propose an understanding of an exceptional student's intended experience that parallels the interests of the common good, an understanding that positions the exceptional student solely within the assumed experience of the citizenry.

ETHICS PRINCIPLE OF PARTIAL INCLUSION

Rawls (1971) contends that in a democratic society equality should be conceptualized as equal citizenship and equal opportunity. His notion of equal citizenship suggests that each of us can be characterized as having individual abilities, abilities that will not always parallel in type or level the abilities of others. Within this context, while each individual has different abilities, each holds a position on the same plane of social worth. Equality of opportunity concerns the liberty within the larger society for each individual to exercise his or her individual abilities. Supporters of partial inclusion contend that periodic placement of exceptional students in segregated settings is necessary for these students' educational and social-emotional development. For these students to have opportunities to experience social and educational benefits naturally afforded to their peers, exceptional students must receive individualized instruction that is developmentally appropriate (Fuchs & Fuchs, 1993). This position, when viewed through Rawls' (1971) philosophical lens, suggests adherence to an ethical approach when making decisions to place students within special education settings.

Arguments for privileging an ethical position for partial inclusion over a moral position for full inclusion are found where policy is enacted through procedure. Bachor and Crealock (1986) provide a helpful lens through which ethical principles are operationalized within processes that undergird procedures for identifying and accommodating the needs of exceptional students. These researchers viewed the transformation of special education policy into practice as a complex of psychoeducational procedures "which view both educational assessment of exceptional students and educational programming as a systematic problem-solving or decision making process" (p. 2). Contextual elements that inform these procedures are based upon interpersonal factors (e.g., social relationships) and intrapersonal factors (e.g., cognitive abilities).
These elements often come together through individual or classroom instruction.

We see guidance for understanding special education inclusion in terms of ethical principles through Dewey's notions of ethics and education within democratic societies. A literal interpretation of Dewey suggests that full inclusion for exceptional students best represents the argument presented by moral doctrine where freedom to wonder intellectually and to engage selectively with one's learning environment witnesses its full potential. However, contextual understanding, of the individual differences that characterize exceptional students and special education policy and practice with reference to these students, is embedded within Deweyan concepts. Dewey (1891) embraced the notion of "function" and "adjustment" to support his ethic of self-realization within a democratic society. These terms are useful in that each represents functional extensions of the ethical principles that support partial inclusion. Function describes how individuals perform and position themselves that enables them to maximize the development of their individual abilities (Westbrook, 1991). Adjustment provides the connection between the individual's abilities and the settings and contexts where they exercise their abilities. Importantly, adjustment is mutually supportive; settings and contexts as well as individuals adjust to facilitate ability development.

Vital to such pedagogical foundations are contextual elements that facilitate and inform ongoing assessment of a student's individual progress and teacher instruction. Educational accommodations for exceptional students are viewed "not in terms of the presence or absence of a handicap or advantage but in terms of his or her specific educational needs" (Bachor & Crealock, p. 2). Without due attention to individual needs and to individual lived experience, one runs the risk of not recognizing "the very real difficulties experienced by some children . . . . Similarly, the fact that categories of special needs are socially created and that the application of them to particular children is imperfect does not mean that the difficulties to which they refer are not real" (Croll & Moses, 1985, p. 20).

Habermas (1993, 1996) argued that ethics focuses upon individualistic notions of self-identity, self-understanding, and individual perceptions of how one positions oneself within the larger society. We extend ourselves into the larger world when we
envision ourselves as "members who, in the face of important life issues, want to gain clarity about their shared form of life and about the ideals they feel should shape their common life" (cited in Coulter, 2002, p. 93). Moreover, Habermas (1993) argued not for exclusivity of individual perspective, rather, for complementary perspectives informed by the introspective self and through dialogue with others. Referring to social issues, Coulter (2002) contends that contradiction between individual needs and societal norms arises when particular social issues are abstracted from context in order to facilitate universal discourse. He argues further, universal understandings apply to specific situations, they must not stem from specific situations. Moreover, discourse of social issues that adheres to context must follow a second tenet, "one in which the guiding principle is not universalization, but appropriateness" (p. 94). Within an ethical framework, therefore, universalization reflective of a moral doctrine approach and its loyalty to common interests is abandoned in favour of appropriateness that speaks to negotiations between the individual and the context and settings of individual experience.

In sum, both sides of the full inclusion debate frame their arguments in terms of equality. An ethical perspective extends from particular contexts and settings that identify individual experience, whereas morality ascribes experience and expands to form general notions of what characterizes and supports universal norms. Proponents of partial inclusion argue that full inclusion does not effectively advance the educational development of exceptional students, rather partial segregation is necessary to meet the individual needs—educational and social/emotional—of exceptional students. Proponents of full inclusion contend that segregated placements sustain systemic and institutional inequality. Under this rationale, exceptional students must be presented with full access to the educational system in order to be afforded full participation within and benefit from the education system. The Eaton case and its final resolution in front of the Supreme Court illustrates the tension between proponents and opponents of partial inclusion and provides a backdrop on which to view moral and ethical perspectives respecting special education placements. The next section details the genesis and decision of the Eaton case.
EATON V. BRANT COUNTY BOARD OF EDUCATION

CASE BACKGROUND

Emily Eaton was a 12-year-old girl with cerebral palsy who was unable to communicate through speech, sign language, or other assistive communication devices. She had some visual impairment and because of limited mobility needed the assistance of a wheelchair. Emily was identified as an exceptional student by an Ontario Identification, Placement and Review Committee (IPRC). These Ministry mandated and board managed committees provide for the identification of exceptional pupils, a determination of their needs, and the boundaries for their placement in an educational setting where special education programs and services can be best delivered. The specific program modifications and services required by each exceptional student are outlined in an Individual Education Plan (IEP). Parents and guardians, and the student (if they are 16 years of age or older) are involved in each phase of the process.

At her parents' request, Emily was placed on a trial basis in a fully inclusive placement at her neighbourhood school. A full-time assistant, whose principal function was to attend to Emily's needs, was assigned to the classroom. In the review conducted at the end of the third year of her placement, Emily's teachers and assistants concluded that the placement was not in Emily's best interests, and judged that, in some instances, this placement was detrimental to her educational progress. The IPRC determined that Emily should be placed in a special education class that was integrated with a general education class throughout the day. Emily's parents appealed the decision to the Special Education Appeal Board. They based their appeal upon section 15 of the Charter, and asserted Emily's right to nondiscrimination based upon her physical and learning disabilities.

The Special Education Appeal Board unanimously upheld the IPRC decision. Emily's parents appealed again, this time to the Ontario Special Education Tribunal, which also unanimously confirmed the IPRC decision. Following this decision, Emily's parents applied for a judicial review with the Ontario Court of Justice. The court dismissed the application. Again Emily's parents appealed the decision, this time to the Ontario Court of Appeal. This court allowed the appeal confirming Emily's parents' requests. Subsequently, the school board appealed the decision to
the Supreme Court of Canada. The Supreme Court affirmed the earlier Tribunal and court decisions, finding that Emily's right to nondiscrimination was not violated and supported the IPRC decision for a partial inclusive placement.

ASSESSMENT OF SPECIFIC NEEDS

In assessing the appropriate placement for Emily, the IPRC and subsequently the Special Education Tribunal considered the various categories of her needs relevant to the school's educational responsibilities. These categories parallel the procedures described by Bachor and Crealock (1986) noted above.

Intellectual and Academic Needs
The IPRC found that there was considerable evidence that Emily had a profound learning deficit, and that there was a wide and significant intellectual and academic gap between her and her peers. Given the modifications made to the curriculum for Emily and that instruction was conducted parallel to that provided to her peers within the regular classroom, the committee concluded that these practices were not effectively meeting Emily's needs. Rather, the committee felt that "when a curriculum is so adapted and modified for an individual that the similarity—the parallelism—is objectively unidentifiable, the adaptation becomes mere artifice and serves only to isolate the student" (Eaton v Brant, note 17). In contrast to a moral stance that suggests inclusion serves to protect exceptional students from isolation, the reverse was observed in the Eaton case. That is, placement in the regular class despite extensive modifications served to isolate Emily from her peers and from the general curriculum.

Communication Needs
Emily's ability to communicate meaningfully with her peers and teachers was severely limited due to her various physical and cognitive challenges. Both Emily's mother and Emily's educational assistant observed that for Emily to learn sign language she needed sustained, repetitive hand-over-hand instruction. The IPRC found that despite this approach, Emily could not communicate using sign language. The IPRC argued that Emily's ability to communicate effectively would be best realized through individualized and highly specialized one-on-one instruction. Because the need to communicate effectively and
meaningfully was so significant for Emily's classroom participation and educational progress, the committee concluded that a segregated special education setting would provide maximum opportunity for such instruction.

**Emotional and Social Needs**
The IPRC reported that Emily's teachers and educational assistant found that her classmates tended not to involve themselves with her in class or at play. The IPRC noted that while her social interaction in classroom and school settings was limited, she nevertheless might be receiving some unobserved benefit. However, Emily's classroom behaviours (i.e., crying, sleeping, and persistent verbal outbursts) seemed to be increasing over the three years and to be restricting opportunities for her to interact with others. As well, her outbursts interfered with her classmates' learning and presented challenges to her own learning.

**Physical and Personal Safety Needs**
The IPRC found that Emily's physical disabilities by themselves should not to be a deciding factor in evaluating whether or not her needs could be met best in a regular or in a special class. According to the IPRC, accommodations based upon physical access are reasonable and should be made to the classroom and school regardless of whether a special classroom may be better designed to address her special physical needs. Regarding her personal safety, the IPRC expressed concern with Emily's tendency to place objects in her mouth. The IPRC contended that it was not reasonably possible to structure a classroom where there were no small objects or to establish the level of adult supervision necessary for Emily to be present in a fully inclusive regular classroom.

Based upon assessments conducted over three years of Emily's needs within each of the areas highlighted above, the IPRC concluded that she needed an environment that maximized the possibility for educational outcomes, through highly specialized instructional (e.g., one-on-one instruction), technological resources (e.g., communicative devices), and a structured environment (i.e., small class size to minimize distractions). Considering Emily's various educational interests and taking into account her individual special needs, the IPRC concluded that the best possible setting was a partial inclusive
placement based from a special needs classroom. This placement was designed to accommodate Emily's social-emotional and academic development. In the morning, using a buddy system, Emily would follow the morning class cycle and participate in classroom activities. In the afternoon, within a special needs classroom, Emily would receive instruction designed to meet her various needs. Moreover, Emily was to undergo ongoing assessment in order that the educational contexts and instruction best match her individual needs.

BRIDGING MORAL AND ETHICAL DISCOURSE

Examination of the Eaton case reveals how both moral doctrine and ethical principles are each present within policy and practice that advocate full and partial inclusion. As well, these two philosophical positions are interconnected. In making its decision, the Supreme Court necessarily considered arguments supportive of both full inclusion and partial inclusion. The decision also illustrated the dialogue that characterizes moral doctrine and ethical principles. In arguing for full inclusion for Emily, her parents contended that partial inclusion was discriminatory based upon her physical and cognitive disabilities. Their rights-based position paralleled moral doctrine in that it ascribed to the IPRC's decision of partial inclusion the notion that Emily's rights are situated within a framework of equal treatment in terms of equal access and equal participation. Their argument stated that Emily should not be treated any differently from other students based upon her measured and observed difficulties. In sum, it would be immoral to segregate Emily from her peers, even for part of the day. In contrast, the IPRC decision contended that for Emily to benefit academically, socially, and emotionally from school she needed the intensive and individualized instruction offered within the special education placement. In sum, it would be unethical to allow Emily to continue in a setting that not only did not afford her opportunity to advance, but was actually deleterious to any educational outcome.

UPHOLDING ETHICAL AND MORAL FOUNDATIONS

With respect to an application of the right to nondiscrimination, the Supreme Court argued that there is a fundamental distinction among observed differences between students identified as exceptional and their peers and between
students belonging to racial, ethnic, or other selected groups as defined by the Charter (Eaton v. Brant, paragraph 66). The principal difference stems from the notion of individual differences. That is, among groups characterized by sex differences, there is no individual difference within these groups. For instance, there is no measurable variance of being any more of a male than another male. In supporting the IPRC's decision the Supreme Court concluded that it was the extent of Emily's special needs that provokes consideration of a special placement, and not the fact that her needs are different from the mainstream.

The Court asserted that "the principles that not every distinction on a prohibited ground will constitute discrimination and that, in general, distinctions based on presumed rather than actual characteristics are the hallmarks of discrimination have particular significance when applied to physical and mental disability" (Eaton v. Brant, 67). Such an argument is not limited to legal doctrine. Indeed, the distinction of presumed rather than actual characteristics is one of the defining principles of special education assessments and perhaps should also be placed parallel to any decisions regarding the selection and utilization of instruction for students with special needs. Again, the Supreme Court supported this distinction, and thus the ethical principles which enact this within special education, when it upheld the IPRC's procedures that were used to identify Emily's various needs.

Concomitantly, the Court maintained the necessity of a moral doctrinal lens when it stated that the absence of reasonable and appropriate accommodations specific to the individual's needs represents an infringement upon their individual rights. The Court concluded that it is also important to take into account the true characteristics of individuals with exceptionalities in order to develop and introduce accommodations that facilitate full participation in society. In a legal framework, it is "the failure to make reasonable accommodation, to fine-tune society so that its structures and assumptions do not prevent the disabled from participation, which results in discrimination against the disabled" (Eaton v Brant, 1997). Thus moral doctrine is necessary, not only to support an ethical position (a stance that requires attention to individual experience), but also to provide a set of checks and balances to ensure that the rights of the student are protected.
MERGING ANTITHETICAL POLARITIES

In the Eaton case, there are substantive contextual differences that render ineffective and inappropriate a strict application of a moral equality principle. Standing alone, a moral approach does not address the educational responsibilities and imperatives of schools. While schools are public institutions, the scope of their responsibility extends beyond the legislative boundaries of human rights codes. Referring to decisions regarding the social-emotional and educational needs of children, the Supreme Court has held that such decisions are best formulated when they are not restricted by presumptions that favour one person or single setting over another. They elaborate, "[t]he operation of a presumption tends to render proceedings more technical and adversarial. Moreover, there is a risk that in some circumstances, the decision may be made by default rather than on the merits as to what is in the best interests of the child" (Eaton v. Brant, 79). We see such technical and adversarial arguments put forth by both sides of the inclusion debate.

When opponents of partial inclusion attempt to operationalize special education policy, they interpret the intent of such legislation as imposing inequality upon students defined as having special needs. Such inequality, it is argued, arises from a lack of strict adherence to universal norms of equality embedded in human rights legislation. Here equality is paralleled with morality. That is, for an action to be deemed equal it necessarily must also be moral. The reverse position is also suggested. Recourse for perceived unequal treatment most often finds itself within human rights tribunals or within the justice system. Once within these systems, discussion on either side moves away from philosophical discourse and becomes more closely aligned with legislative and legal dialogue (Smith & Lusthaus, 1995).

Legal equality is, however, different from philosophical equality. Smith and Lusthaus (1995) suggest that legal equality does not necessarily equate with philosophical equality (i.e., treating everyone alike); rather, legal equality is intended to meet the pragmatic needs of the general public. The doctrine of nondiscrimination in the Charter carries with it two bi-directional parallel responsibilities; one that endeavours to prevent discrimination based on the attribution of stereotypical characteristics to individuals, and a second that affirms the need to ameliorate injustices that cause groups within society to suffer
disadvantage through exclusion from mainstream society (Eaton v Brant, paragraph 66). Thus while a moral doctrine provides a definition of one's individual rights within society, the doctrine also establishes the boundaries of responsibility and remedy. In discussions of suspected discrimination, human rights legislation and the Charter mandate that there is always a presumption in favour of acceding to or creating circumstances that halt the discrimination. These presumptions undergird a moral doctrinal response to perceived inequality experienced by exceptional students.

Within the arguments presented by opponents of partial inclusion there seems to be a tendency to grasp an a priori reasoning that special education policy is inherently inequitable. That is, any decision to place a student with a disability in a special education class for part or all of the school day is an infringement upon their right to nondiscrimination. In defence of this position, a strict adherence to nondiscrimination doctrine will advance a belief that anything short of full inclusion is analogous to segregation and, in turn, represents an exercise in discrimination. A difficulty with such a doctrinal approach is that when it is carried to its supposed end, special education students are viewed as being placed in a position of inevitable harm. What is not addressed by this framework, however, is a foundation of educational policy which supports special education placements that rest upon a foundation of both nondiscrimination legislation and empirically supported educational remediation.

The same Charter section that is used by advocates for full inclusion to characterize partial inclusion as discriminatory provides the foundation for proponents of partial inclusion to uphold their responsibility to advocate for partial inclusion of exceptional students. Subsection (2) of section 15 of the Charter states:

Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

While section 1 of the Charter upholds exceptional students' individual rights "to equal protection and equal benefit of the law without discrimination," the moral doctrine, the subsequent
subsection, supports the ethical principles that necessitate remediation for exceptional students.

Divergent perspectives on the needs of exceptional students held by opponents and proponents of full inclusion can be unified under their common interests in the exceptional student within a framework that embraces an interactional process whereby moral doctrine and ethical principles run parallel yet intersect at shared points of concern. Indeed, as the Eaton case suggests, moral doctrine that supports full inclusion and ethical principles that support partial inclusion are complementary aspects of special education policy and practice. Neither alone is sufficient to advance full educational opportunity for exceptional students. The presence of each is not only necessary for the existence of the other; each must inform the rationale of the other in order for any decision to have meaningful and longstanding effect.

Partial inclusion is not only compatible with contemporary initiatives respecting the maintenance of basic human rights of exceptional students; it is a necessary component of the larger special education mandate of the public school system. In the Eaton case, the Supreme Court's decision supports and, indeed, further operationalizes the rights of exceptional students while also supporting the responsibility of educators to attend to the individual needs of these students. Accommodations to the school and classroom with respect to teacher instruction, to the curriculum, and to the social and physical environment necessarily stem from the individual needs of the students. As moral doctrine illustrates, however, the very notion of the need to accommodate originates from long-standing challenges to everyday practices that fall outside universal norms of nondiscrimination.

Decisions regarding the need and selection of accommodations for exceptional students must not be based solely on adherence to moral doctrine. Such decisions must be filtered through ethical principles that address what is in the best interests of these students. Moreover, individual needs must address the students' immediate and long-term needs. This is not to suggest that exceptional students' experiences should not be limited implicitly or explicitly with the educational services offered. Rather, one needs to be aware that the functional benefits of many educational interventions—instructional and curricular—will
necessarily, at times, place exceptional students in contexts and situations different from their general classroom peers.

CONCLUSIONS

Schools represent a unique contradiction for exceptional students. Schools serve as both the setting where the nature of exceptional students' difficulties is distinguished from their peers, and schools serve as the setting where exceptional students receive remediation for their difficulties. On the surface, there seems to be fundamental incompatibility between those who argue for full inclusion and those who argue for partial inclusion or exclusive placement in a special needs setting. The philosophies that undergird contentious battles between these two camps are indeed complementary to the intended outcomes of each. This paper has attempted to bridge an apparent paradox between the arguments espoused by opponents and proponents of these two policies. The Supreme Court decision, Eaton v. Brant (1997), provides a useful setting to illustrate the moral and ethical nature of partial inclusion in general and the IPRC process in particular.

Within special education, segregation can both serve to protect equality and to infringe upon equality. As illustrated above, students with disabilities were initially granted access to the public education system through placement in special schools or to special education classes within the school. Successful challenges to these placements were based upon arguments stemming from application of the nondiscrimination clause in the Charter and from provincial and federal human rights legislation. The courts have affirmed this position arguing that "[w]hile integration should be recognized as the norm of general application because of the benefits it generally provides, a presumption in favour of integrated schooling would work to the disadvantage of pupils who require special education in order to achieve equality" (Eaton v. Brant, 69).

Moral doctrine suggests that full inclusion is necessary to maintain universal norms of nondiscrimination. When considering the implications of a strict observation of equality we run the risk of forsaking equality of opportunity for equality of experience. Advocates of full inclusion typically perceive partial inclusion through creating vignettes of experience drawn from a literal application of human rights legislation without due attention to context. In so doing, such advocates create sketches of daily life
that are far removed from the day to day experiences of exceptional students. The current interest in asserting the moral imperative of full inclusion, irrespective of individual needs, places such students in a position where their educational (academic and social-emotional) needs are compromised due to allegiance to notions of a common good. It is attention to individual differences that allows for the selection and utilization of educational practices that facilitate the attainment of equality of opportunity.

Any presumption that places the wishes of an external advocate, even parents, over the counsel of the IPRC must be questioned on the grounds of an ethic of equality supported by rigorous educational foundations and through the lens of moral doctrine. A decision that defers decisions to parents over the judgement of the IPRC risks displacing the educational needs of the student. This is not to suggest that an IPRC decision should necessarily override challenges stemming from a moral doctrine. A decision which flows from strict adherence to ethical principles, without due consideration to inequality based upon a perceived disregard for moral responsibilities, is equally injurious.

Embracing moral doctrine with respect to the right to nondiscrimination of exceptional students was necessary to establish the policy and practice of inclusion. With the declaration of the right to inclusion in the Ontario Education Act the establishment of group rights applied to students identified with exceptionalities—the moral doctrine of equality for these students was ingrained in the public school system. What was left was the need to develop policy and define practices that ensure that the philosophy of inclusion moves from full entrance into the general education system to full and meaningful participation. The difference between entrance and participation is more than the difference between two levels of policy implementation. Rather, full and meaningful participation requires a higher degree of specificity that addresses connections among individual needs, individual capabilities and specific educational practices. So long as we conceptualize decisions regarding inclusion upon strict moral foundations or strict ethical standards there seems little escape from ongoing or emerging dilemmas within special education. Such dilemmas will necessarily place advocates calling for full and impartial inclusion at odds with special education
professionals calling for allegiance to the individual experiences and abilities of exceptional students.

References

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DEWEY, THE NEW ECONOMY, AND CANADIAN CURRICULUM POLICY
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INTRODUCTION

Dewey’s views on education took into account the need for the school system to adapt to the changing conditions of the time (Grubb, 1996; Sears & Marshall, 2000). In Democracy and Education (1916), he asserted that the changes associated with the Industrial Revolution raised questions about the relationship of schooling to industrial life. No such vast social readjustment could occur without offering a challenge to an education inherited from different social conditions, and without introducing education to new problems. Dewey was convinced that addressing these challenges demanded more than a mere rearrangement of existing educational practices and curriculum. Rather, distinct new educational arrangements, adjusted to the new external environment, were needed. Social life had undergone a thorough and radical change and if education was to have any meaning for life, it had to pass through an equally complete transformation (Dewey, 1915).

Dewey was attempting to replace the static traditional model of education, one many believe still exists today (Berryman & Bailey, 1992; Hart, 2002) that placed a premium on assignments, on private, isolated study, and on memorization. His tools in this effort included a child-centered, integrated curriculum that emphasized active, project-based approaches to teaching and links with the wider community, particularly the world of work (Marshall, 1997). His goals were to free education from the hold of traditional rote learning and tie the curriculum to reality so that it did not, as Tanner (1997) states, spin off by itself as an isolated world existing only in the school’s rarefied atmosphere.

Although he wrote almost a century ago, the philosophy of John Dewey is highly relevant to the current concerns about education, its failures, its successes, and its necessary reform (Fishman & McCarthy, 1998; Simpson & Jackson, 1997). The New Economy is generating a set of challenges and changes for the education system similar to those created by the Industrial Revolution (Betcherman, McMullen, & Davidman, 1998; Stasz, 1998). Even though Dewey offered curricular models to help
address these challenges, there is little evidence that Canadian education policy has listened to him. Schools today still bear a striking resemblance to educational institutions of the early 20th century (Kliebard, 1999; Tanner, 1997). Rather than promote change, it can be argued that school reform in Canada has resulted in curriculum policy that has perpetuated the dualisms in education that Dewey fought against. One exception to this is the advent of work-based education (WBE).

This paper starts by discussing the importance of WBE in school-to-work transition efforts and shows how WBE reflects the vision of schooling that Dewey espoused. The rationale and roots of Dewey’s experiential society-integrated approach to education are then examined with reference to the similarities between education in Dewey’s time and current educational practices as well as the comparable challenges posed to the education system by the Industrial Revolution in the early century and by the New Economy today. Following this section is a review of the key concepts of Dewey’s Laboratory School, an early example of WBE that models the teaching and learning strategies Dewey felt were needed to prepare students for a changing society and changing workplace. Lastly, an examination of school reform in Canada, using Ontario as an example, is used to show how curriculum policy, with the exception of WBE, has done little to incorporate Dewey’s philosophy and has actually deviated from many of his ideas.

WORK-BASED EDUCATION

There is a growing concern that too many young people in Canada are entering the labour market without appropriate preparation for employment (Council of Ministers of Education of Canada, 1999; Human Resources Development Canada, 2000). This issue is reaching a critical stage: it is estimated that almost 70 percent of young people under the age of 21 are in the workplace within three years of graduation from high school (Taylor et al., 2006) and that 26 percent of this group report having no work experience (an increase from 9 percent in 1989) (Human Resources Development Canada & Statistics Canada, 2000). Canada’s long-term economic and social potential in the global economy depends on the encouragement of successful school-to-work transition among youth and the development of appropriate
workplace skills and knowledge by all Canadians (Human Resources Development Canada, 2002). In addition, the realities of the New Economy are that companies are providing less structured training for new employees (Kelly, 2000). Lack of quality work experience now appears to be a more severe handicap for young people than ever before (Marquardt, 1998).

Although there is agreement on the part of the public and of policymakers (Council of Ministers of Education of Canada, 1999) that the secondary education system can play a key role in preparing youth for the world of work, there is also a strong belief that the changing work environment of the New Economy is gradually rendering education, as traditionally delivered, less relevant to the workplace (Lewis, Stone, Shipley, & Madzar, 1998; Munby, Hutchinson, Chin, Versnel, & Zanibbi, 2006). Schools have made attempts to strengthen their links with work by implementing work-based education (WBE) initiatives in which a planned program of work experience that takes place in the community is linked to the school curriculum. Examples of WBE include job shadowing and job twinning, work experience, virtual work experience, and cooperative education (Ontario Ministry of Education, 2000). WBE provides students who are enrolled in courses of all types and in all disciplines with the opportunity to enhance their school programs by providing a practical, hands-on context for their academic experience.

A main focus of WBE is a transformation of curriculum and instructional practice, a transformation that reflects a radical revisioning of schooling rooted in the practices of John Dewey (Lehmann-Rommel, 2000). It calls for active participation in problem solving and critical thinking regarding an authentic learning activity that students find relevant and engaging (Fishman & McCarthy, 1998). Learning in WBE is meant to be contextual, that is, learning that occurs in a real life context, or a close simulation of a real life context. Cognitive research has found that the typical classroom environment, characterized by lecture and passive learning, discourages many students from learning (Berryman & Bailey, 1992). Real environments, including workplaces, stimulate learning and engage students in a vital and active way (Guile & Griffiths, 2001). WBE seeks to overcome the abstract, theoretical, non-contextual approach schools use for delivering the curriculum, an approach that many
contemporary youth question because of its disconnectedness from reality (Jackson & Davis, 2000).

WBE also focuses on Dewey's idea of education through occupations and the importance of using occupations to promote active learning (Grubb, 1995). This curricular approach provides an opportunity for young people to learn more effectively because they take an active part in the education process rather than being passive recipients of information transmitted by teachers (Guile & Griffiths, 2001). Olson (1997) points out that WBE incorporates Dewey's strong support for a curriculum that reflects the realities of contemporary life especially engaging young children in projects and in manual activities. Furthermore, WBE addresses the pressing need to better connect our high school curriculum and structure with the realities of life beyond school (Lewis et al., 1998). Munby, Chin, & Hutchinson (2003) believe that WBE initiatives such as co-operative education are integrative in that they serve general education goals and are neither restricted to career/vocational education nor confined to less-academically oriented students. WBE represents a return to the ideals of Dewey by providing opportunities for all students to simultaneously experience the theoretical and the practical as well as the academic and the vocational (Grubb, 1996).

The foundation for Dewey's belief in experiential education, in contextual learning, and in education through occupations was a response to the massive societal change occurring during his lifetime. Dewey's ideas are very relevant today because of the parallels between education in his time and current educational practices as well as the similar challenges faced by the education system during the Industrial Revolution and in the New Economy today.

EDUCATION IN DEWEY'S TIME AND EDUCATION TODAY

The fact that the education system today is similar to its counterpart in the early 20th century is no surprise as methods of teaching and learning have changed very little in the past 100 years (Reid, 2002; Waks, 2002). Dewey's (1915) assessment of the pupil being made into a passive receptacle, whose only function is to receive the structured subject matter which scholars have codified, is eerily familiar. Dewey was convinced that the traditional,
formal, desk-bound approach to schooling was inadequate for the growing USA: a new society being transformed from a simple agricultural economy by unprecedented industrialization, immigration, rapid population growth, and drastic social change (Reid, 2002).

In most classrooms across the United States during Dewey's time, children could be found sitting in their seats, passively receiving information from their teachers and committing random facts to memory (Fishman & McCarthy, 1998). Insuring the retention and absorption of the imposed subject matter and skills was of the utmost importance. Dewey (1902) compared this method of teaching to inscribing records upon a passive photographic disc to result in giving back what had been inscribed when the right button is pushed in recitation or examination. Dewey viewed education as predominantly static in subject matter, rigid in methods, and mainly passive and receptive from the side of the young (Tanner, 1997). Students were trained to become docile and obedient and to perform imposed tasks simply because they were imposed (Dewey, 1915).

Today's schools are viewed in much the same way (Fishman & McCarthy, 1998; Jackson & Davis, 2000). More emphasis is put on learning the facts than on learning how to think about the facts. As Hart (2002) points out, it is rare for students to go beyond the mere possession of information to understanding its implications and either applying it or exploring its possible applications. The end result is a gap between the rhetoric promoted by schools that refers to individual flexibility, originality, and creativity and the actual classroom experience that conditions students to be rigid, unquestioning, and docile (Kourilsky & Walstad, 2000). These conforming behaviours are reinforced daily by the organization of the classroom, by the kinds of questions teachers ask, by the nature of the seatwork assigned, and by the emphasis on tests and quizzes (Hart, 2002).

The same assumptions about teaching and learning made in the early 20th century are still made today. Schools do not operate on the principle that the learning environment in school is different from learning environment outside of school (Berryman & Bailey, 1992; Jackson & Davis, 2000). Resnick (1987) echoes Dewey's ideas about learning in context by contrasting school learning with thinking, problem solving, learning, and knowledge
use outside of school. She notes that school learning is characterized by symbolic activities that tend to become detached from meaningful contexts. As a result, school-like learning tends to become learning rules and saying or writing things according to rules. In non-school situations, learning is different because people's mental activities are grounded in things and situations that make sense to them. For the most part, learning in school has very little context and occurs in isolation from school's external environment (Jackson & Davis, 2000). Dewey (1916) stated that if education was to have any relevance for students, it had to be related to life outside school. His observation that students were unable to apply what they were learning in school to daily life led him to see education as isolated from life, in particular, from the workplace. Today, there is still a strong conviction that the large gap between education and the workplace is causing education to be seen as less pertinent (Leadbeater, 2000; Lewis et al., 1998). Given the picture of a rapidly changing society, one would hope to see a rapid evolution of the institutions charged with preparing young people for participating in society (Csikszentmihalyi & Schneider, 2000). However, there is a much slower rate of evolution of the school and that means a bigger and bigger gap between school and society. Because students can see this gap, they begin to understand that the methods of teaching and learning, as well as curricular content, are out of sync with the society in which they live. It then becomes more difficult to get students to "buy into" the idea that school is satisfying their needs and that school is a bridge to the New Economy as political leaders keep reiterating (Ravitch & Viteritti, 1997).

THE NEW ECONOMY COMPARED TO THE OLD ECONOMY The New Economy is characterized by the globalization of national economies, corporate downsizing, rapidly changing markets, information technology, and increased international competition (Packer, 2001; Stasz, 1998). It is also characterized by significant changes in the work environment, specifically, the creation of a more dynamic, unstable, and entrepreneurial workplace (Kourilsky & Waistad, 2000).

In the workplace of the old economy, associated with the industrial age, organizations had large bureaucratic structures with many layers of management. It was a system of employment
where most workers were moderately skilled and educated, work was finely divided, and layers of supervision provided direction, made decisions, and communicated with others inside and outside the firm (Packer, 2001). On the other hand, in the New Economy associated with the post-industrial age the old hierarchical organizational structures are giving way to organizational change fueled by new kinds of human resource practices. These practices include: flattened hierarchies; more decision making and problem solving authority in the hands of front-line employees; self-managed, cross-functional teams instead of bureaucratic assembly lines; and extensive cross-training, teamwork, and flexible work assignments in the place of elaborate work rules (Betcherman, McMullen, & Davidman, 1998; Black & Lynch, 2004). Surveys show that these practices are increasingly prevalent in organizations in advanced industrial societies (Black & Lynch, 2003; Holman & Wood, 2003). Advanced economies are constantly evolving and there is a general sense that the pace of change has accelerated in recent years. In response, many firms in Canada have undertaken significant organizational changes and have implemented new human resource practices (Human Resources Development Canada and Statistics Canada, 2003).

While some authors (i.e. Beckstead & Gellatly, 2003; Lowe, 2000) believe that Canada's economy has made no major shift and that the workplace and its new category of worker will only comprise a small percentage of the workforce (with most people still working in routine de-skilled jobs), this outlook on the New Economy still acknowledges the entrepreneurial and adaptable attributes of the new worker as paramount for all to acquire. For example, while many jobs may be described as menial, mobility between jobs is an example of a domain where these attributes are considered necessary. In the turbulent environment of the New Economy, people may have to learn to package part-time and casual jobs into working livelihoods, be contractors rather than employees, see the opportunity in job change and unemployment, and see self-employment as a viable career option (Kouilsky & Walstadt, 2000). Emmison (2003) goes so far as to state that the need for work skills associated with the New Economy is not associated with employment alone, but rather infiltrates all aspects of life.
Keeping in mind the vast change from the old economy to the New Economy, it is troublesome that current education institutions still seem to be locked into the industrial age. (Jackson & Davis, 2000; Smith, 2001). Even though large manufacturing and resource industries are no longer major sources of employment, education systems are still modeling themselves on these forces. Education at all levels is designed to prepare people to work within a traditional framework where someone will guide them and tell them what to do. In the New Economy, this is no longer the case, even for people who work in big business (Leadbeater, 2000).

As in Dewey's time, schools need to respond to the realities of life outside school. Dewey (1915) lamented that many topics and methods in existing education date back to social conditions that are passing away. There is a familiarity in his argument that institutions of learning were controlled by ideals and ideas that were fixed when industrial methods differed radically from those of the present day. Dewey (1916) talked of the transformation of the education system rather that its reform. Reform implied reshaping what already existed; however, he saw no point in reshaping a model that was obsolete. The word transformation indicated that education must utilize a new model of teaching and learning, one more relevant to the realities of life beyond the school. Such a transformation of the education system is needed today in order to deal with the realities of the New Economy (Murnane & Levy, 1996; Stasz, 1998).

THE NEW ECONOMY AND EDUCATION

The impact of the New Economy has several important implications for the education system. Like the students entering the workplace, schools have to learn to deal with change and become more flexible and adaptable (Packer, 2001; Stasz, 1998). The New Economy will not remove the familiar demand on the education system to prepare students for life in society. However, in addition to traditional tasks and course content, educational institutions will be expected to teach new skills, by new means, to a wider range of students (Leadbeater, 2000). As well, they will have to do this in the face of often-contradictory pressures. For example, the New Economy is expected to be less hierarchical, more flexible, and involve more cooperation and teamwork than
the old. But traditionally, educational institutions have been judged on how well individual students perform on their own in tests. New forms of performance assessment will be needed that take into account the changing needs of students and society.

As unfair as it may seem to saddle schools with the burden of preparing students for a constantly changing, and increasingly complex workplace and society, there is really no escape for the education system. As Dewey (1915) asserted nearly a century ago, the forces of the modern world are going to continue to act upon the schools and the demands of an industrialized and technological society cannot be ignored. Although his comments referred to the impact of the Industrial Revolution in the United States (1860-1900), his views are quite relevant when discussing the effects of the New Economy on the education system today (Kleibard, 1999; Waks, 2002).

There are sharp similarities between the magnitude of change, and the resulting challenges facing students entering the workplace, created by the Industrial Revolution in the 20th century and the New Economy today. The Industrial Revolution in the United States was actually the second Industrial Revolution after the first one took place in Britain at the end of the 19th century. The New Economy is often referred to as the third Industrial Revolution (Gordon, 2000; Thurow, 2000).

During the Second Industrial Revolution, many new technologies were invented, including electricity, motor and air transport, motion pictures, radio, and indoor plumbing. These technologies made incredible rates of productivity growth possible, and launched a transition to a period of about 70 years of ongoing, rapid technical change. These changes had a large impact on the education system in Dewey’s time. Students were entering a workplace now characterized by the change from artisan production to industrial; the rise of big industry—the railroad, steel, and oil; people working in factories and mines instead of fields; new means and methods of production; new ideals of competition; and the rise of labor unions (Atkeson & Kehoe, 2001). Similarly, students today are entering a workplace characterized by new technologies, global competition, and changes in the organization of work. It is a world at least as different from what came before it as the industrial age was from its agricultural predecessor (Thurow, 2000).
Dewey recognized, as many do today, that students needed to be ready to enter this new world of industry and that existing educational practices had to acknowledge the importance of preparation for a turbulent workplace (Franzosa, 1997). Employers at the time would have argued that the existing education system, which taught students to be docile and unquestioning, prepared students well for a workplace dominated by powerful industries that sought to control their workers (Tanner, 1997). However, Dewey (1916) disagreed and believed that if students learned to be critical thinkers and problem solvers, not only would it help make workplaces more democratic and emancipatory, but it would help students prepare for, and adapt to, the constant changes in the work environment. Dewey sought to develop learners who were problem solvers, lifelong learners, collaborators, change agents who are also able to change, and practitioners of democratic processes (Fishman & McCarthy, 1998). The type of student Dewey wanted to create seems prophetic when looking at what students today need to succeed in the workplace associated with the New Economy. The Dewey Laboratory School at the University of Chicago offers a model for today of the strategies Dewey thought should be used to help students prepare for the challenges they face in a changing society (Tanner, 1997).

DEWEY'S CHICAGO LABORATORY SCHOOL: A NEW MODEL OF TEACHING AND LEARNING

The Laboratory School was student-centred and emphasized learning by doing—rather than by rote memory and aimed to break down the barriers between schools and their local communities. It was the crucible in which Dewey's pragmatic approaches to teaching and learning, curriculum, and school organization were to be hammered out (Martin, 2002).

Dewey's ideas for his Laboratory School were influenced by his own experiences. He realized that the most important parts of his own education until he entered college were obtained outside the school room. This played a large role in his emphasis, both in theory and in practice, on occupational activities as the most effective approach to learning (Tanner, 1997). Dewey (1902) believed that people learn by putting thought into action: mostly by dealing with problems that arise while engaging in activities
that interest them. He advocated that education start with a child's interest in concrete, everyday experiences and build on that understanding to connect with more formal subject matter. At the Laboratory School, children participated in experiences drawn from community life and occupations. Dewey (1900) thought that by using the workplace and the wider community as a resource, the school becomes a place where students learn in context and apply what they learn to real life.

It is important to note that Dewey's intent was not to make the schools an adjunct to manufacturing and commerce, but to utilize the factors of industry to make school life more active, more meaningful, and more connected with out-of-school experience. His belief was in education through occupations not for occupations (Dewey, 1916). For example, the spinning and weaving work done in the classroom by the children and teachers at the Chicago Laboratory School illustrated how solving the problems of production, and investigating the technologies involved, led to a multifaceted and interdisciplinary inquiry that incorporated history, sociological analysis, literature, mathematics, geography, art, poetry, and drama (Tanner, 1997). Using occupations to focus instruction also fostered active learning and an integration of vocational education and academic education (Grubb, 1996). Dewey was particularly concerned about conventional vocational education, fearing it would narrow the education of those preparing for lower skilled jobs and deny them opportunities for developing their full range of capacities (Tanner, 1997). Such "trade" education would defeat its own purpose as changes in industry took place and narrowly trained individuals could not adapt (Grubb, 1996). However, the broader conception of education through occupations, with its emphasis on more student-centered, project based, and integrated instruction, would help avoid these limitations by exposing students to many different options and prepare them for several possibilities.

The Laboratory School was characterized by several key principles which are also evident in modern WBE initiatives including: (a) an integrated curriculum consisting of both academic and vocational elements, (b) collaboration with the workplace and the wider community, (c) active teaching strategies, learner-centered instruction, and project-based
approaches to teaching, and (d) instruction and assessment that was more meaningful and relevant to the real world. Dewey's ideas have had very little influence on current school reform and curriculum policy in Canada as the curriculum and teaching methods which Dewey rallied against almost 100 years ago are still very much alive in schools today. School reform, a potentially powerful tool in exacting change, has instead served to maintain the distinction between academic and vocational education and perpetuate a curriculum isolated from life outside school.

SCHOOL REFORM AND CURRICULUM POLICY IN CANADA Canadian education policy exhibits a considerable amount of commonality in the rhetoric and practice of reform across provinces (Anderson, 2000). Education rhetoric stresses the importance of education for the changing economy and the need for higher standards and stricter accountability measures. In terms of reform, policy measures often seem to move across provinces. For example, all provinces have (a) passed legislation creating parent advisory councils for schools, (b) tightened requirements for core curricula through such measures as greater time allocations for key subjects and (c) increased the amount of provincial testing of students (Levin & Young, 1998). However, rather than the change on a large scale that Dewey believed was necessary, school reform in Canada has focused on marginal changes within an existing pattern of provision (Anderson, 2000). According to Levin (1998), recent education reform has shown a tendency to try to solve new problems with old tools. Although work is changing in important ways, education policy seems to remain substantially locked into the existing structure of institutions, roles, curricula, and learning practices.

Anderson (2000) states that reform in Canada reflects many aspects of the reform process globally, particularly in English speaking countries. The impetus for reform comes as a result of a political outcry followed by a royal commission or task force that makes recommendations. Reform is then guided by the implementation of many of these recommendations (Pal, 1997). The Ontario Royal Commission on Learning, and its subsequent report, For the Love of Learning (1994), are typical examples of the school reform experience in Canada (Anderson, 2000). The commission was formed as a response to a growing public
dissatisfaction, high dropout rates, and poor national ratings of Ontario education.

It is ironic that a hundred years after Dewey, adjustment of basically the same curriculum that Dewey saw, and within the same institutional setting, still seems to be the preferred tactic of official reports (Reid, 2002). For example, the Royal Commission produced recommendations that were similar to the 1894 report of the Committee of Ten, with the implication that, rather than fundamental reform, what was needed was more of the same—more math, science, and technology; more distinction between academic and vocational education; more teacher training and accountability; more content in existing courses; and more testing. The Harris government implemented many of the commission's recommendations which were evident in the creation of Ontario's new curriculum in 1999 (Grillanda, 2001).

The main purposes of the new curriculum were to (a) make the high school program consistent with the other provinces by reducing it from five to four years, (b) introduce a more challenging curriculum with higher standards demonstrated by province-wide tests, and (c) enhance the transition from school to work (Ontario Ministry of Education, 1999). However, the new curriculum reflects changes that are in direct opposition to what Dewey recommended. Rather than assessment and instruction that is more meaningful and relevant to the real world, there is more emphasis on testing, including standardized testing. According to Robert Galvin, the former CEO of Motorola, memorized facts, which are the basis for most testing done in schools today, are of little use in an age in which information is doubling every two or three years (Murnane & Levy, 1996). The fact that the education system is embracing standardized tests just when the New Economy is eliminating standardized jobs is seen as detrimental to students (Stasz, 1998). Another consequence of the emphasis on testing (as well as increased course content) is that teachers are pressured to "teach to the test" with little time or energy for the active teaching strategies, learner-centered instruction, or project-based approaches to teaching that Dewey called for (Lehmann-Rommel, 2000).

Lastly, and perhaps most importantly, rather than the integration of academic and vocational education, the new curriculum has increased the distinction between the two through
the advent of the new university and workplace stream courses. Dewey criticized the dualisms that dominated education, in his time as now: the separation of individual and society; of learning and doing; of play and work; and especially, of academic education versus vocational education (Grubb, 1996). He argued that academic and vocational education should not be separated and that their integration was an opportunity for an education that was broader in its focus and helped provide more options for students. Munby et al. (2006) echo Dewey's sentiments by asserting that if the school curriculum continues to be dominated by an obsession with academic subject matter, schools will become increasingly irrelevant as school leavers find themselves less prepared for life after school. This dualism of academic and vocational education can be addressed by returning to the Deweyan notion that vocational education is integral to secondary education for all students, regardless of their destination (Munby et al., 2003). Dewey's plan of education through occupations, with its emphasis on more student-centered, project based, and integrated instruction, was a curricular model that linked vocational and academic education and exposed students to many different options and possibilities.

While few of the practices seen in Dewey's Laboratory School are evident in current reform reports and curriculum policies, Dewey's ideas can be seen in the underutilized area of experiential or Work-Based Education (WBE). WBE is a curricular approach that incorporates much of Dewey's philosophy and many of the practices prevalent in the Chicago Laboratory School including learning through occupations, the integration of academic and vocational education, active learning and teaching strategies, and links to the broader community. Unfortunately, while WBE could be a key component in preparing students for the workplace, the new curriculum in Ontario has actually discouraged students from enrolling in these programs (King, 2002). The reduction of the Ontario high school program to four years, and the pressure to graduate in this time period, is making it harder for students to include WBE initiatives such as cooperative education in their timetables. Furthermore, the education system has had enormous difficulty moving away from its traditional academic approach. It devotes very little attention or energy to teaching and learning about work and efforts to extend
WBE programming in schools have been very difficult to sustain (Ainley, 1996; Jackson & Davis, 2000).

CONCLUSION

Putting ourselves in the historical setting of a century ago it was a time of curricular challenge similar to our own (Tanner, 1997). The massive change in society, particularly in the workplace, caused by the impact of the Industrial Revolution was forcing education to address new problems and new realities. Dewey's experience during the second Industrial Revolution provides an important historical context for examining the monumental changes facing education today as a result of the New Economy.

Dewey understood that if education was to be relevant, it had to undergo a transformation that would change the way that teaching and learning occurred in schools. Dewey was, in effect, employing New Economy thinking in the Old Economy in both the way he viewed preparation for life after school and in his realization that curriculum thinking needed to be based on realities of a constantly changing rather than static workplace. His idea of a child-centered, integrated, and contextual curriculum with active, project-based approaches to teaching and learning and links with the wider community was designed to create self-directed learners and problem-solvers that understood the changes in society and were able to adapt. His Chicago Laboratory School was a vehicle for putting these ideas into practice and provides a curricular model to help inform current school reform and curriculum policy. However, rather than be influenced by Dewey's ideas, school reform and curriculum policy in Canada have perpetuated the educational issues that Dewey fought so hard against. There is a greater distinction between academic and vocational education rather than a greater integration of the two; there is more emphasis on testing which is resulting in less emphasis on active, project-based teaching and learning strategies; and there is a preference for the "more of the same" approach of small scale reform instead of the large scale transformation Dewey called for. With the exception of WBE, curriculum policy has done little to incorporate Dewey's philosophy.

WBE reflects many of Dewey's beliefs including the integration of academic and vocational education, links with the
broader community, and contextualized learning. Unfortunately, efforts at expanding WBE are being hindered by several factors including lack of research and school reform itself. The new four year secondary school program in Ontario is making it more difficult for students to take WBE programs like co-operative education and lack of research on the success and impact of WBE is impeding its expansion. Further research on the impact of WBE programs would enhance its profile and make it a larger part of school reform and curriculum policy in Canada.

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INSTRUMENTAL MUSIC IN THE SECOND LANGUAGE CLASSROOM
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INTRODUCTION
A question that challenges a large number of researchers and educators is "How do we teach a second language"? In an effort to answer this question, a variety of pedagogical tools have been explored. Among the recommended methodologies, we find those centered on the acquisition of a second language through the auditory sense. In exploring the tools necessary for the development of auditory abilities, many researchers such as Abbot (2002), Abrate (1983), Eken (1996), Jalongo and Bromley (1984), Jolly (1975), Lems (2001), and Spencer (1994) have proposed that music be incorporated into the second language classroom. The literature discussing the theoretical foundations and rationale for using music in the second language classroom focuses on: how music and language are processed in the brain, Gardner's Theory of Multiple Intelligences, the auditory approach to second language (L2) learning, the link between music and memory, music as a motivator, music and relaxation, and the relationship between music skills and L2 language acquisition. The rationale researchers give for using instrumental music in the second language classroom is based on the reflection of culture in music, the value of music in the L2 curriculum, the use of a musical instrument in the L2 classroom, and the parallels between the two disciplines of music and second language acquisition.

THEORETICAL FOUNDATIONS AND RATIONALE FOR USING MUSIC IN THE L2 CLASSROOM

Music AND LANGUAGE PROCESSING IN THE BRAIN
Neurologists have found that musical and language processing occur in the same area of the brain, Broca's area, and that there appear to be parallels in how musical and linguistic syntax are processed (Lems, 2001). Maess, Koelsch, Gunter, and Friederici (2001) performed an experiment to localize the neural substrates that process music-syntactic incongruities using magnetoencephalography (MEG). They found that "activity was localized in Broca's area and its right hemisphere homologue, areas involved in syntactic analysis during auditory language
comprehension" (p. 540). It was found that these areas are also responsible for the analysis of incoming harmonic sequences indicating that musical syntax, like language syntax, is processed in Broca's area. This study revealed from a functional-neuroanatomical view that "there is a strong relationship between the processing of language and music" (Maess et al., 2001, p. 543).

Several researchers (Heller & Campbell, 1981; Sloboda, 1985) report the presence of similar principles in the mental processes of music and language. Heller and Campbell present parallels in the speech and music communication processes and further suggest the use of concepts and methods developed in psycholinguistic research as a basis for psychomusicology. They propose that music and speech are considered to have a common structural source, both in terms of cultural evolution and individual development. They show that music and language are complementary forms of aural communication and that the potential for music acquisition by each human infant is approximately the same as that for language acquisition. They further explain that music and language stem from basic human brain organizing capability and that each may satisfy the brain's developmental need for imposing structure and meaning. Speech and music both convey information about the cognitive and affective states of the performer.

In his research, Fiske (1993) discussed the link between language and music. He states that music and language are similarly processed and that the analysis of speech processing provides clues to answer the question about music processing. Fiske believes that musical perception, like linguistic perception has two structures, a surface structure and a deeper structure. Noam Chomsky (1965) was the first to suggest that language could be divided into two components: a surface structure component and a deep structure component. Chomsky used this distinction as a method for analyzing speech acts and linguistic practice. Fiske borrows this terminology and draws a parallel between the surface structure of language, which he refers to as the aspects of speech such as phonemic identification, prefixes and suffixes, word order, word pronunciation, phrase and sentence structure etc., and the surface structure of music which he believes is the motive or the musical phrase and the organization of musical patterns in relation with rhythm and melody. He also compares the
deep structure of language, which he believes is comprised of what sentences denote outside of their actual structure, things like perceptual relationships, beliefs, feelings, attitudes, ideas, opinions, with the deep structure of music which is the relationship between melodic and rhythmic patterns.

Lowe (1998) took Fiske's concepts and translated them into educational concepts. She developed the analogy that the surface structure of language is its pronunciation and oral grammar. In the case of the deep structure of language it is a question of comprehension and vocabulary. For the surface structure of music, it is the melodic-rhythmic patterns. The deep structure is the musical form.

All of this research emphasizes the strong link between language and music and where each is processed in the brain. Knowledge of this link can be a valuable asset when developing pedagogical tools for the L2 classroom. Howard Gardner (1985) supports this link in his theory of multiple intelligences.

GARDNER'S THEORY OF MULTIPLE INTELLIGENCES

Musical intelligence is one of the multiple intelligences valued by psychologist Howard Gardner. His Theory of Multiple Intelligences (1985) has had a profound effect on the way intelligence and the learning process are viewed. It states that people possess varying degrees of musical/rhythmic, linguistic, logical-mathematical, spatial, bodily-kinesthetic, intrapersonal and interpersonal intelligence, as well as a proposed ecological intelligence. The implication of this theory is that some may be "Intelligent" in one or more of these centers of cognition while remaining underdeveloped in other areas (Maxwell, 1999). Gardner's theory implies that teaching "should be directed at the development of as many of these different intelligences as possible" (Maxwell, 1999, p. 14); teaching, then in Maxwell's view, requires a curriculum model that is multi-dimensional. Maxwell also states that second language teachers "must direct teaching not simply to the acquisition of vocabulary and structures, but... expanding the other horizons of the mind" (p. 14).

The practical implication of Gardner's theory, as described by Failoni (1993), "is that any of the intelligences can be exploited as a means of transmission, even though the actual material to be mastered falls into only one of the domains"(p. 97). According to this logic, music can be used as a tool to help in the
Gardner (1985) explains that "all normal (non-brain-damaged) people possess some musical intelligence" (p. 278). Therefore, even though second language teachers are not interested in developing musical intelligence, they may be able to "use the students' musical intelligence (and interest) to achieve mastery of certain other skills" (Failoni, 1993, p. 97). Gardner proposes that intelligence is the ability to solve problems. This "intelligence" can then be used to achieve communication skills in the second language. Music can become a teaching tool, similar to audiovisual or computer software, and can be integrated into classroom activities (Failoni). The danger, however, in this approach, involving the integration of the arts with other subjects as outlined by Winner and Hetland (2000), is that the level of learning in the arts may suffer. The arts are often used simply as a tool to expedite the learning of another subject perceived to be more important. If one believes that arts education, specifically music education, is an essential element in the holistic development of a student, it is imperative that when music is integrated with other subjects that pedagogical methods are employed which are equally pertinent to the learning of both disciplines.

THE AUDITORY APPROACH TO SECOND LANGUAGE LEARNING

Listening is a vital step in developing communicative abilities. An examination of the literature on listening reveals it to be central to all learning. More than 45 percent of our total communication time is spent in listening (Nichols & Leonard, 1957; Nord, 1977, as cited in Feyten, 1991). Listening time is even greater for students. It can, therefore, be stated that language acquisition is based on what we hear and understand, that is, the decoding of messages. "Since the 1970's, emphasis on teaching languages for proficiency, and stress, on language as a means of communication, has given a new dimension to the importance of receptive skills in communication" (Feyten, 1991, p. 173). As a result an input, or stimulus-oriented, methodology has been adopted. Second language teachers are now taught to have students "delay oral practice and listen to the target language before they have students engage in other activities" (Feyten 1991, p. 173). If the listening skill is to be drawn upon so heavily during the teaching process, and, if listening is essential to language acquisition, then more attention needs to be paid to the nature of
this ability and to the skills needed to listen effectively. In the last two decades, the communicative and proficiency-oriented approaches to language teaching have placed increasing importance on listening comprehension as a methodological concern (Barker, 1989; Krashen, 1982; Omaggio 1986; Postovsky, 1975, as cited in Feyten, 1991). Feyten underlines the centrality of listening in all human communication, not just language acquisition. She also proposes that a student's general listening ability may be a reliable predictor of the student's overall proficiency in a foreign language.

In exploring the necessary pedagogical tools for the development of listening abilities, several researchers have proposed the incorporation of music in second language teaching, because music, like all other languages, is first acquired through the auditory sense (Hodges, 1980; Sherbon, 1975, as cited in Lowe 1998). Moreover, researchers in education suggest that if the ability to listen is essential to second language acquisition (Feyten, 1991) and to music education (Failoni, 1993), then the integration of music into the second language classroom is an approach that merits consideration (Lowe, 1998). Many educators support the idea that musical activities have a profoundly positive effect on learning a second language and that these activities raise the level of learning in the second language (Failoni, 1993; Lems, 2001; Lowe, 1998).

THE LINK BETWEEN Music AND MEMORY

Music has been an integral part of first language teaching since the Middle Ages, and it has always been accepted that rhythm and music are important tools in teaching young children their own language (Karimer, 1984). Stevick (1982), an authority on language teaching, claims that fluency depends at least as much on emotional factors as on amount of practice, and that what a learner practices is the mobilization of competence, not just the repetition of performance. Research on human memory has brought to light the fact that what we think of as separate items are not stored separately. Further research has revealed that sensory data that come together are stored together. The smell of chalk, for example, immediately conjures up images of small, wooden desks. Karimer believes that in the students' acquisition of an L2, not just one sense, is or should be, affected. This idea is also shared by Newham (1995-1996) who cites that those with senile
dementia show a marked increase in their capacity for remembering the persons and events of a distant period when they hear music from the relevant episode of their life. Music "provokes the sentiment of reminiscence and in consequence provokes thoughtful cerebral reflection upon the subject which is being reminisced" (Newham, 1995-1996, p. 6).

Abbott (2002) outlines that music enhances and stimulates memory because dual coding leads to deeper processing and better retention. This is also a view held by Jensen (2000) who postulates that music activates and strengthens multiple memory systems for both explicit and implicit memory.

Music AS A MOTIVATOR

Researchers support the notion that music has the power to engage and motivate students in the second language classroom (Abbott 2002; Abrate 1983; Eken 1996; Jalongo & Bromley, 1984; Jolly 1975; Lems 2001; Spencer, 1994). Abrate states that music holds the attention and interest of students and provides an entertaining alternative to textbook study. In a study commissioned by The Royal Conservatory of Music, it was found that "nearly all parents (90%)—regardless of school type—reported that the arts motivate their children to learn. Fewer than 1% of parents questioned the importance of arts programs" (Upitis & Smithrim, 2002, p. 2).

Several studies have been performed to examine students' responses to the use of music in the foreign language classroom. In the study performed by Jolly (1975), students were asked to rate the use of songs according to their usefulness in helping them learn the L2 on a scale of 1 to 5 (1 being "not useful" 5 being "very useful"). It was found that a majority of the students rated the songs as being very useful with the 1 to 5 rating never dropping below a "neutral" 3. Many indicated that the music created a relaxed and enjoyable atmosphere in the classroom and enlivened the pace of the lesson; others felt that the songs relieved them from the usual tedium of the classroom and that as a result they were more receptive.

Another study by Spencer (1994) also found that students respond positively to music in the second language classroom. Spencer's study involved circulating a survey to over 400 students in five universities in the Kansai area of Japan. The survey was designed principally to find out if students were motivated by
popular music in the classroom; if students had confidence in singing and memorizing Japanese lyrics themselves; and if students had the same confidence to sing and memorize the lyrics of a foreign language as Japanese lyrics. From the results, Spencer concluded that students overwhelmingly like music in the class, but when learning a foreign language they prefer to listen rather than sing and to read the words rather than memorize them. These two studies only look at songs in the foreign language classroom and, therefore, the research is limited in considering music as a motivator in the L2 classroom.

Jalongo and Bromley (1984) suggest that music can increase a student's motivation to learn a L2. They explain that because most students enjoy music and enjoy listening to the lyrics of songs that they are motivated to imitate what they hear. "Imitation, although not always accurate or representative of language comprehension, is one of the ways in which language develops naturally. All learners, whether possessing different, delayed or advanced oral language, use imitation in the course of developing linguistic competence" (Jalongo & Bromley, 1984, p. 840). A learner's ability to imitate exceeds his or her ability to comprehend, which is usually greater than the ability to produce original language (Stewig 1983, as cited in Jalongo & Bromley). Imitation can then facilitate both language comprehension and independent language production.

A similar phenomenon is described by Murphey (1992). His study looked at the discourse of pop songs and he established a "song-stuck-in-my-head phenomenon" (SSIN'IHP); the repeating of a song in one's head, usually occurring when audition is followed by relative quiet, as with the last song you hear before leaving your home or car (Murphey, 1990a, 1990b as cited in Murphey 1992). He compares this to the din, the involuntary rehearsal of language in one's mind, after a period of contact with a foreign language. It has been shown that the din is a phenomenon worthy of consideration, as it may be a manifestation of Chomsky's hypothesized language acquisition device (LAD; see de Guerrero, 1987; Krashen, 1983; Parr & Krashen, 1986, as cited in Murphey 1992). Murphey postulates that "the SSIMHP might even be capable of tricking, or activating, the LAD into involuntary rehearsal" (p. 773). Oliver Sachs writes, "[concerning] 'tricking' the LAD into operation via music and song...one sees again and again how Parkinsonians though unable to walk, may
be able to dance; and though unable to talk, may be able to sing” (personal communication, March 30, 1988 as cited in Murphey 1992). "The L2 research question is whether music and song can trick the LAD into a din mode that would process more communicative speech" (Murphey, 1992, p. 773).

These studies suggest that music has the power to raise and maintain most students' motivation whether voluntarily or involuntarily and to make a language lesson a memorable event.

Music and Relaxation

Music not only motivates students and increases their memory but it also assists in relaxation (Fitzgerald, 1994; Jensen, 2000; Lems, 1996; Mora, 2000; Richard-Amato, 1996). People tend to make music when they are happy; at weddings, graduations, and birthdays. Guglielmino (1986, as cited in Fitzgerald 1994) explains that "it is because of music’s affective response, [that] the very act of listening or creating music can simultaneously relax tension and alert the senses, which produces an ideal state for learning" (p. 44).

The brain responds to music in the same way as it does to calming words or massage (Jensen, 2000). Music has the ability to reduce anxiety and inhibition (Richard-Amato, 1996), as shown in a study by Kumar, et al. (1999, as cited in Jensen 2000): thirty-minute music sessions were given to 20 male Alzheimer patients five times a week for a month. The study found that:

- the melatonin concentration in serum blood levels increased dramatically and remained high at a six-week follow up. Other neurotransmitters [brain chemicals], such as norepinephrine and epinephrine levels were raised during music therapy but returned to pretherapy levels at the study's conclusion. (p. 65)

The increase in the melatonin level, a chemical which has several functions including inducing sleep, supports the claim that music increases relaxation. Thayer's studies (1996, as cited in Jensen, 2000) also show that music is a powerful mood enhancer. In Thayer's study, college students were surveyed to discover what behaviors they used to reduce nervousness, tension or anxiety. "Out of the 21 possible mood regulators presented in the survey, music ranked 3rd with only a 6% difference between it and the top ranked mood modulator—talking to others” (Jensen, 2000, p. 65).

Mora (2000) proposes that the reason music has the ability to
change the listener's mood is because it stimulates the imagination. Because language instruction involves much repetition and practice, it can often become boring, tiring, and anxiety producing (Fitzgerald, 1994). Music provides "an excellent vehicle for re-invoking and reviving the anxious, bored and fatigued L2 student" (Fitzgerald, 1994, p. 42).

Music's ability to reduce stress and anxiety is important because the immune system and our brain are both negatively impacted by chronic elevated stress levels (Sapolsky, 1992, as cited in Jensen, 2000). According to Fitzgerald (1994), it has been found that music can positively influence the rhythm of breathing, relaxing the body and heightening awareness and mental receptivity. "Music can also help regulate the body's level of cortisol and secretory immunoglobulin A (IgA), which are both important indicators of health" (Jensen, 2000, p. 66). Jensen (2000) cites a study where college students were given one of four listening conditions—either radio music, tones and clicks, Muzak (calming music), or silence (control). It was found that after 30 minutes only Muzak lowered IgA levels. Jensen outlines that this strengthening of the immune system can be helpful because all students may arrive at school already in a distressed condition, so a brief intervention of music can move learners closer to the optimal learning state of relaxed alertness. For this reason, Lems (1996) suggests playing music in the background before class or during a break to set an atmosphere for learning.

THE RELATIONSHIP BETWEEN Music SKILLS AND L2 LANGUAGE ACQUISITION

Many researchers have been interested in discovering the extent to which musical abilities (i.e. the ability to recognize differences in pitch, loudness, and rhythm) can account for variance in speaking and listening tests performed by L2 students. Most investigations into the relationship of L2 language learning and musical skills have examined the relationship of certain musical skills to an individual's ability to learn and speak a L2. Some of the first studies to investigate this relationship were performed in 1934 by Dexter and Omwake (as cited in de Frece, 1993) where they found a relationship between low ability in pitch discrimination and poor French accent at the college level. Another study, performed in the same year by Dexter (as cited in de Frece, 1993), reported that the correlation between
pitch discrimination skill and French accent rating was higher with high school students than with college students. Similarly, Blickenstaff (1963), in a review of research on musical talents and foreign language learning ability, found that "the correlation between pitch discrimination and foreign language achievement are largest in high school and that they become progressively smaller as one proceeds through the college and intensive course levels" (p. 359). Pimsleur, Stockwell and Comrey (1962, as cited in de Frece, 1993) demonstrated that pitch discrimination is related to the auditory comprehension of French. Several studies performed at the college level in the mid 1960's demonstrated that IQ, motivation, pitch discrimination, reasoning and word fluency contributed to success in foreign language learning. A similar study by Leutenegger, Mueller, and Wershaw, (1964) of University students enrolled in a beginning course in French, found tonal memory was a significant predictor of foreign language acquisition ability.

Research has also been conducted on various auditory aptitudes or competencies and their role in predicting success in language learning. Arellano and Draper (1972, as cited in de Frece, 1993) found that musical ability and Spanish accent achievement are strongly related, and suggested that "music and second-language learning may, during childhood and over a protracted period of time, be mutually re-enforcing" (p. 114). Brutten, Angelis and Perkins, (1985) performed an empirical concurrent validation study in which measures of musical ability (i.e. the ability to recognize differences in pitch, loudness, and rhythm), auditory discrimination, and memory were used to account for variance in attained English as a Second Language (ESL) oral proficiency. The results of this study revealed that sentence repetition was the only predictor variable to account for a significant amount of variance in the dependent variables but this was still tenuous. The authors proposed that the ability to distinguish between phonemes, however important, does not, in and of itself, imply an ability to understand verbal messages. They do however, propose a research program where the authors will replicate a collection of data using the same instruments but using subjects who are in the lowest level of proficiency in English. Through this next study they hoped to discover whether there are variables which are significant predictors of speaking ability and
whether training in pitch, loudness, rhythm, timbre, and tonal memory might be useful to beginning L2 students.

There is only a limited amount of literature that examines the relationship of music skills and L2 acquisition. Further research in this area is required.

USING INSTRUMENTAL MUSIC TO SUPPORT L2 LEARNING

Many researchers, such as Jackendoff (1994), have established the close relationship between language and music. Both of these communications have significant common elements and similarities. The introduction of instrumental music to an L2 class can also make language learning "fun" and thus intrinsically motivate students. Murphey (1987) clearly identifies this when he discusses an experience at an international summer language camp:

I was a little embarrassed at the end of camp one summer when the parents of one student were introduced to me and they asked their little 7 year old how she liked her English class. The child looked confused and couldn't answer until her mother rephrased the question and said "your class with Tim," and she pointed at me as a concrete referent, "How was it?" The little girl responded in English "Oh, I like it." (pp. 2-3)

The student really did not know that she was taking an English class, what she was doing was taking a "fun" class in English. "Learning a language is not very high on a child's hierarchy of goals, but having fun is. The language was secondary, as in fact it usually is to everyone except linguists and language teachers" (Murphey, 1987, p.3).

The balance of this paper attempts to point out how instrumental music can be effective in supporting L2 learning by examining the reflection of culture in musical style, the incorporation of music in the L2 curriculum, the use of a musical instrument in the L2 classroom and the parallels between the two disciplines of music and second language acquisition.

THE REFLECTION OF CULTURE IN MUSIC

When one is learning a language one is also learning a culture (Failoni, 1993). As Schumann stated in his Acculturation Theory, as presented in The Pidginization Process: A Model for
Second Language Acquisition (1978 cited in Failoni, 1993), the degree of a learner's success in second language (L2) acquisition depends upon the learner's degree of acculturation (ability to understand and adjust to the culture). Musical style reflects culture in the choice of instruments, style, organization of pitches (melody and harmony), rhythm and form (Failoni). The introduction of various musical styles can provide the global focus necessary in the L2 classroom (Failoni), since the students may not be familiar with music other than that of their own country or culture. The musical style from other cultures is an effective point of departure to explore another culture. Students will respond to the music, and they can discuss or write about their impressions, explain how they relate to music with which they are familiar, and express what they like or dislike about the musical style (Failoni).

Failoni (1993) states that "the musical style, singing style, vocal accents, and textual themes combine to contribute to cultural awareness" (p. 103). She presents the example of the song "Bal Masqué" (Compagnie Créole) which features Caribbean instruments, singing styles, and rhythms. This piece is culturally significant because it describes an important Martinique festival.

A goal for the L2 teacher is to:

- introduce a variety and diversity in cultures where the target language is spoken and by incorporating folk and children's music, classical art music, ethnic forms, and the contemporary popular music of a society, teachers will be able to provide a more authentic presentation of a culture's music. (Failoni, 1993, p. 103)

It must be noted that, when introducing the music of a country, if the music is limited to only the famous or familiar (e.g. translated American pop music), it may confirm a student's stereotype (that Mexicans only dance the hat dance, for example) and negate the desired goal of appreciation of another culture, or imply that other cultures have nothing to offer and that they only imitate (Griffen, 1977, as cited in Failoni, 1993). Unfortunately, the study of musical style is not often employed in the L2 language class because the teacher may not feel confident or knowledgeable about music theory and history (Failoni). Furthermore, the issue of musical style as a reflection of culture is not addressed in L2 language texts or research. This is an area where more research is needed so that L2 language resources can include the valuable component of musical style as a mirror of culture.
THE INCORPORATION OF MUSIC INTO THE L2 CURRICULUM

Many researchers support the notion of incorporating music into the L2 curriculum (Eken, 1996; Katchen, 1995; Lems, 1996; Murphey, 1987). Lems (1996) suggests teaching a unit on musicology, music appreciation, or the work of a single musician. Eken (1996) proposes an activity where students listen to instrumental music such as Vivaldi and then free draw. The students then discuss what they have drawn. Similarly, Katchen (1995) suggests that students create and present descriptive stories from a piece of music. Students are often asked to talk about visual stimuli (e.g. describe a picture), yet they get little practice describing aural stimuli (Katchen). For this reason Katchen designed a project where students listen to instrumental music and create an oral "imaginary music video" describing what is happening in the music. In this activity the teacher plays a short piece of music and asks the students to explain what images it conjures in their minds. The teacher then gives each student an audiotape. Each tape contains a different piece of music (without words). The students then listen and answer the question "What does it make you think?" From these ideas, the students create a story, incorporating as much detail as possible. The students then present their stories to the class and these presentations can be videotaped and later critiqued. Afterwards, the teacher can distribute the CD jackets for each student's selection. The covers can generate some spontaneous questions and discussion about the origin of the music, the language on the jacket, and musical tastes (Katchen).

The topic of music can be motivational in itself. There are "exploitation possibilities centering around a song, but there are many more around the topic of music, that may not include listening to anything, at least not initially, but still use the motivation of music" (Murphey, 1987, p. 3). An example of such an exercise is the musical questionnaire (Murphey, 1987) that asks for student's interests, favourite groups, radio stations and types of music. The students can calculate the answers and then articles can be written for a newsletter. In addition to being a real communicative exercise for the practicing of the L2, the information collected can be used by the teacher as places to find information to exploit later in the class (Murphey).
In 1987, Murphey reviewed two different language programs with a focus on music. In the first program, children 7 to 17 participated in an international summer camp where they learned English through music. The younger children learned English through songs while the older children worked on instrumental music projects that related to their musical and social interests. Through this program Murphey discovered that an interest in music and related movement was a strong motivator for language learning. He also found that there is a reason for music, just as there is a reason for language. He remarked that:

some teachers seem to want to study language out of context just as certain musicians study music divorced from audience reaction. Other people use language and music for different purposes: it conveys information, represents moods, and stands for something. And finally that's what communication is all about. (p. 4) The point that Murphey was trying to make was that students need to do something with language, and teachers need to try to use the students' environment and interests. The psychologist Rivers (1976, as cited in Murphey 1987) says:

We must find out what our students are interested in. This is our subject matter. As language teachers we are the most fortunate of teachers—all subjects are ours. Whatever the... [students] want to communicate about, whatever they want to read about, is our subject matter. The essence of language teaching is providing conditions for language learning—using the motivation that exists. (p. 5)

Through this approach students do not even realize that they are learning a language, they feel as though they are simply exploring music.

The second program was an adult education class in which music appreciation was taught entirely in English to nonnative speakers. Murphey based this program on Krashen's belief that subject matter teaching, when it's made comprehensible is language teaching (1986, as cited in Murphey, 1987). This course looked at music in a variety of ways: anthropologically, medically (music used in operating rooms, dentists offices, and music- and psycho-therapy), in business (jingles, films, Muzak in stores), and in the music business (types of music, songs in
different languages, radios, selling a hit, song structures, etc.) To survey the effectiveness of the course, Murphey distributed a feedback questionnaire to the class. The responses indicated that although many students were unable to name many specific linguistic items, students said that they felt more secure expressing themselves and were surprised that they could say so much. They also said that the course was interesting and fun. The teacher found that the course had advantages because the class was comprised of intensely interested participants.

The main question which concerned Murphey (1987) throughout this program was "Did the students acquire the same amount of language as they would have in a regular language class?" He found that the answer to the question was threefold since the students were given a host of "language learning opportunities" as Dick Allwright (1986, as cited in Murphey, 1987) calls them. First, he felt that it was the subject matter of music that got them involved and kept them attending class, "English" was more an excuse. Secondly, music made it possible to have a class of students of differing levels because the focus was on common information, experiences, and opinions that the students wanted to share and not on linguistic abilities. The students were concentrating on the messages and ideas as they would in their native language. Finally because the teacher was also interested in the subject matter and was not an authority on music, the students' opinions and information were valuable.

Marphey (1987) concluded his study by stating that "effective natural communication does not exist without relevant information being exchanged" (p. 7). Humans are an extremely practical species and don't want things or information for simple possession, but for what they can do with it. Language teachers sometimes teach as though this isn't true. They get bogged down in reciting verb conjugations and forget about the practice of the language. The fact that many students are "motivated and interested in music make it extremely relevant to students wishing to move physically, emotionally, and or intellectually in the actual use, the doing, of language" (Murphey, 1987, p. 8). As McKenna states: "Music could be the stimulus which makes communication pleasant" (1977, p. 42, as cited in Failoni, 1993).
When incorporating music into the L2 classroom, one always thinks of bringing a pre-recorded CD, cassette, or video to class. One rarely thinks of bringing a guitar or flute and trying to play a melody in front of the students (Spencer, 1994). Spencer advocates the use of a musical instrument because there is a large amount of freedom and control provided by having the instrument in the teacher's hands as he or she walks around the room. When comparing playing a musical instrument in class to using prerecorded music, some advantages to having the teacher play the instrument are:

a) the atmosphere can be more relaxed and has the novelty of live, human-delivered music, b) the teacher can adjust the volume, tempo, pitch, stress and continuity of the music to match student participation in the activity at any time, and c) the teacher, when playing accompaniments can change his distance from and intimacy with the students so as to give struggling students relatively more attention. (Spencer, 1994, p. 230)

Spencer (1994) found that students are rarely concerned with the level of proficiency on the instrument as long as the melody is easy to hear and performed at a stable tempo.

Certain instruments lend themselves better to doing specific activities. Spencer (1994) suggests that a keyboard or guitar is a good instrument with which to do sing-alongs while solo instruments such as a clarinet, trumpet or viola are better for doing combined speaking, listening, and singing activities. Playing the melody of a simple, well-known song and having the students try to guess the name of the tune and sing or hum one verse of the melody is an example of a combined singing and listening activity. The teacher is free to move around the room to where students show energy and a desire to respond. When a student has difficulty, the teacher can play the required notes to encourage a further response until the student has successfully completed the song. The teacher can also play with a recording that adds backing and texture to a live delivery (Spencer).

Spencer (1994) explains that "using music in class, like any other lesson strategy, requires planning, preparation and a conscientious implementation of the plan." By carefully planning activities, the L2 teacher can use a musical instrument to motivate and interest students. Once students see that the teacher is willing
to take a risk by performing in front of the class they may be more eager to participate. The use of musical instruments in the class need not be limited to the teacher, students may also bring in their instruments and perform with the teacher.

PARALLELS BETWEEN THE DISCIPLINES OF MUSIC AND SECOND LANGUAGE ACQUISITION

Giauque (1985) suggested that there are parallels between the disciplines of music and L2 acquisition. He compares the characteristics of the foreign language teacher, student, and classroom to the corresponding characteristics of the music teacher, student, and classroom. He bases his comparison on his own personal experience that "many students who are involved with music seem to have an advantage when it comes to dealing with foreign languages" (p. 1). He explains that the reason for this is that both music and L2 involve sounds, and that making the transfer from one discipline to the other is fairly easy. Giauque suggests that the L2 learning could be enhanced by adopting some of the techniques of music instruction.

The first technique that he suggests is "warming up." When students first enter the music classroom they immediately get out their instruments and start playing. Giauque proposes that L2 students could also warm up "by taking his/her 'instrument' out of its 'case' (his/her knowledge of the language) and by beginning to use it (that is, begin actively speaking)" (p. 2). The justification for this warm up is that "a student must consciously turn his/her mind to the language and begin to concentrate on the language, if he/she is to acquire it and begin to think in it, if he/ she is to become fluent" (p. 2).

The second technique that Giauque (1985) suggests is the visualization of a successful end product. In music one often has to imagine a beautiful and musical tone before being able to produce a musical sound. Similarly the author is suggesting that the L2 student visualize being fluent in the second language without referring to their first language.

Thirdly, Giauque compares a second language to playing a musical instrument: "it takes great effort and concentrated desire, to acquire a skill in the discipline" (p. 3). Music and L2 are "not like lecture classes, or classes in which one reads a book and takes a test. Rather, music and foreign languages are disciplines in which the performance is the ultimate outcome" (Giauque, 1985,
Giauque suggests that practice geared towards a complete and accurate performance should be the goal of both music and L2 acquisition.

The next comparison that Giauque draws is between evaluation in music and evaluation in L2. In music it is not only the student with the most talent that receives the highest grades but it is also the student who displays a good attitude, enthusiasm and a commitment to music that also receives high grades. Giauque suggests “in the L2 classroom, that the student's willingness to consider himself a 'speaker of the foreign language' must inevitably play an important role in the grade he [she ultimately receives” (p. 4). In this way grading is based on enthusiastic participation and not the outcome of a final exam. Giauque justifies this by explaining that language studies belong to humanities, in which not only cerebral knowledge but also personal development is an issue. "It is the day-to-day effort that makes a difference in second language learning" (Giauque, 1985, p. 5).

Music, like language, seeks to communicate "reality." "Learning to manipulate the instrument so that it produces beauty teaches the musician a great deal about himself/herself, much more than merely reading about music will ever do" (Giauque, 1985, p. 7). The cooperation between music and language is valid because both offer not only the potential for performance, but also the possibility for mastery, a sense of history, and an appreciation of culture.

CONCLUSION

Music is comprised of many interconnected elements and has definite links with language. Based on the results of the cited studies there is considerable justification for incorporating instrumental music into the second language classroom. These reasons are supported by the fact that both music and language are processed similarly in the brain, by Gardner's Theory of Multiple Intelligences, by the auditory approach to second language, by the link between music and memory, by the use of music as a motivator, by the link between music and relaxation, and by the relationship between music skills and L2 language acquisition. Instrumental music has the power to engage students and to support second language learning because of: the reflection of culture in music, the incorporation of music in the L2 curriculum,
the use of a musical instrument in the L2 classroom and the parallels between the two disciplines of music and second language acquisition. In this way instrumental music becomes a powerful tool to raise the level of learning in the second language classroom.

All of the authors recommend further research into the field of auditory learning and the incorporation of music into the second language classroom. The studies reported are specific and examine only one small area of how music in the second language classroom could facilitate the learning of a second language. There are many other areas in second language acquisition where the possibility of music integration needs to be explored.

References


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Nancy L. Hutchinson
SECOND LANGUAGE READING INTERVENTIONS AND
SOCIO-ECONOMIC STATUS:
A REVIEW OF THE LITERATURE
Sara E. Alarie

INTRODUCTION

Second language reading acquisition is a relevant research area for both academics and educators. Researchers have been investigating the processes by which children learn to read in their first language (L1) for decades. Research into how children learn to read in their second language (L2) is more recent. Less is known about the cognitive processes L2 children use in learning to read, let alone to what extent the techniques used to remediate children learning to read in their L1 hold true for L2 learners. Correlational and intervention research with monolingual English children has repeatedly demonstrated that phonological awareness (PA) is related to reading achievement (reviews in Adams, 1990; Ehri, Nunes, Willows, Schuster, Yaghoub-Zadeh, & Shanahan, 2001).

PA is the ability to perceive and manipulate the sounds of spoken words (Goswami & Bryant, 1990). The importance of the development of PA is ubiquitous in the scientific study of reading (Ehri et al., 2001). Phonemes are the smallest units into which speech can be divided (Scarborough & Brady, 2002). For example, the word bat has three phonemes: /b/, /a/, /t/. Evidence abounds that PA interventions for children with low PA help to remediate their reading skills in the L1 (e.g., Blachman, Tangel, Ball, Black, & McGraw, 1999; Torgesen, 1998). Research evidence also exists for the transfer of PA between L1 and L2 (Comeau, Cormier, Grandmaison, & Lacroix, 1999; Durgunoglu et al., 1993; MacCoubrey, 2003).

Given the linguistic diversity of Canadian classrooms and the prevalence of French Immersion (FI) as a programme of instruction (Statistics Canada Census, 2001), it is of increasing pedagogical importance to ensure teachers are equipped with the best techniques to ensure all children are aided towards literacy. The little research which has addressed the efficacy of reading interventions conducted with L2 students has not explored the relationship between SES (socio-economic status) and remediating reading skills. As SES can be related to the amount of home support caregivers provide their children this variable could
change the ability the children have to respond to L2 PA interventions. There is a paucity of research investigating the effectiveness of PA interventions for L2 learners, specifically whether such interventions are more effective conducted in the L1 or L2.

In order to address the issue of how to remediate reading skills in L2 learners with low SES, this paper presents brief discussions surrounding the importance of PA in learning to read, success with PA interventions in L1 populations, the importance of early interventions, and the transfer of PA between L1 and L2. Studies which exist on the topic of PA interventions in L2 are then presented with an analysis of the need for increased research in this area. Finally, a synthesis of existing literature relating SES and reading is presented.

IMPORTANCE OF PA IN LEARNING TO READ

Ehri et al. (2001) noted PA involves the isolation, identity, categorization, blending, segmentation, and deletion of phonemes. They reported the results of a meta-analysis of the National Reading Panel which was assigned the task of investigating the effectiveness of various approaches to teaching L1 children to read. Fifty-two studies that had been published in peer-reviewed journals were investigated and the report found that PA can be taught to at-risk students. Moreover, it was found that increased ability in PA improves reading skill. Experimental studies which gave PA instruction to students with a control group receiving non-PA instruction were also investigated. The metaanalysis found PA helped various groups of children including at-risk readers, Kindergarteners, first graders, children with low SES as well as children with mid-high SES. PA instruction was more effective when taught in small groups and was also one of the best predictors of how well children eventually learn to read. In short, a great deal of research has found PA instruction makes a significant contribution to reading acquisition for many groups of students.

IMPORTANCE OF EARLY INTERVENTIONS

Research indicates that it is best to intervene earlier rather than later if a child is having difficulty learning to read. Stanovich (1986) coined the term Matthew effects to describe the
fact that those children who initially show difficulty learning to read are likely to continue to experience difficulties. His synthesis of the extant literature found that often the children who initially show difficulty tend to fall behind ('the poor get poorer') and many of those students who begin strongly generally experience success in reading ('the rich get richer'). Either through induction or direct instruction, a beginning reader must learn the alphabetic principle (the fact that letters map onto units of sounds). Stanovich (1986) pointed out that those students who have initial difficulty breaking the sound-to-spelling code become exposed to less text than those who break the code. Moreover, automaticity and speed are compromised in these readers in difficulty and their reading progress slows and does not usually catch up to their peers who did not display initial difficulties.

Shaywitz and colleagues conducted a longitudinal study that followed children from Kindergarten through the ninth grade (Shaywitz, et al., 1999). Their results indicated that once children begin to fall behind in their reading, as early as second grade, they rarely catch up to their peers. The children in the study came from a cohort of children representative of those entering public Kindergarten in Connecticut in 1983. It is noteworthy that most of the children considered at risk in early elementary grades were given a variety of special educational services and these children still did not catch up to their peers in reading ability. Noticeably absent from the educational support given to the children was any systematic and explicit form of PA intervention. The help the children received was found to be inconsistent and brief (Shaywitz, et al., 1999).

Blachman, Tangel, Ball, Black, and McGraw (1999) investigated a PA intervention targeting low-income inner-city children. In their study 159 Kindergarten children were assigned to either a treatment group which received a PA intervention which lasted 11 weeks or a control group. Prior to the intervention there were no significant differences between the groups with regards to race, age, SES or developmental level. In first grade, teachers implemented PA activities and also emphasized alphabetic code instruction for the treatment group. At the end of first grade the treatment group children outperformed the control group on measures of PA, letter sound knowledge and word recognition.

Other researchers have found that PA interventions can help LI children having difficulty learning to read. Wagner,
Torgesen, Laughon, Simmons, and Rashotte, (1993) studied a cross section of 184 Kindergarten and Grade two students. They found that phonological skills are relatively stable during the elementary school years, suggesting that interventions are necessary to help those children with low PA learn to read. Torgesen (1998) also found that early intensive instruction can help to remediate those considered at-risk for reading disabilities. Torgesen selected Kindergarten children likely to be in the bottom 10% of readers by the end of second grade to test the ability of explicit PA interventions at normalizing reading ability. Torgesen's research showed that an intense and alphabetically explicit intervention early in a child's learning to read process can help to catch their reading level up to that of children who were not considered at-risk for reading difficulty.

Bus and Van IJzendoorn (1999) addressed the effectiveness of PA training on reading success by searching PsychLit and ERIC using the snowball method. More than 700 students were represented in the resulting meta-analysis. Training with PA was found to improve PA and reading skill. They found effects sizes of $d=0.73$ (r = .34, N = 739) and $d=0.70$ (r = .33, N = 745) for PA and reading respectively. The effect sizes for PA measures were larger in preschool and Kindergarten than elementary school. Also, reading measures had larger effect sizes for preschool students than Kindergarten and elementary school students. This research highlights the importance of intervening early.

Troia (1999) highlighted some of the weaknesses of existing intervention research in a meta-analysis of 39 studies. He criticized a lack of random assignment, a lack of control for Hawthorne effects, and an absence of reporting on fidelity of treatment as principal weaknesses in many studies' internal validity. In terms of external validity, Troia criticized participant selection and description and also issues surrounding maintenance of skills. Future research should recognize Troia's direction and be mindful of these issues.

PA AND L2 SAMPLES

Phonological representations are acquired and polished over the course of language development, but how these representations are formed for second language learners is only beginning to be understood. As mentioned earlier, research with monolingual beginning readers has demonstrated the relationship between PA and reading acquisition. This paper now addresses the
existing research evidence for the hypothesis that the awareness of phonological structures transfers between L1 and L2.

Durgunoglu, Nagy, and Hancin-Bhatt (1993) investigated if PA transferred from Spanish to English in bilingual beginning readers. Tests of letter identification, English and Spanish word recognition, and PA were administered to first grade Spanish students with limited English knowledge. PA was tested using segmentation, blending, and matching tasks. Multiple regression analyses demonstrated performance on English word and pseudoword recognition tests was predicted by the level of Spanish PA. Their research provided evidence that PA performance in Spanish (L1) predicted English (L2) word and pseudoword reading. Based on their results, they argued that it is possible to build upon the strengths a child already has in his or her first language. Accordingly, developing PA in the first language is helpful for L2 word recognition. They reiterated the point made in this paper that monolingual research has demonstrated the relationship between PA and beginning reading and called for more research investigating how the different components of the reading process can be applied to bilingual beginning readers.

Cisero and Royer (1995) investigated if there was a specific pattern in the development of PA and then, once PA is developed, if it can transfer to L2. Their subjects were first grade and Kindergarten students who spoke English and Spanish. Results supported the hypothesis that PA develops in a developmental progression (e.g., Goswami, 2002). More importantly, Cisero and Royer found PA can be transferred from L1 to L2 while it is still being learned and refined in L1. They also found evidence that scores on L1 (Spanish) PA predicted, at a significant level, L2 (English) PA. In their discussion of educational implications, Cicero and Royer indicated that the information researchers have on monolingual reading needs to be applied to bilingual populations.

Comeau, Cormier, Grandmaison, and Lacroix, (1999) investigated 122 Grade 1, 3, and 5 L1 English speakers enrolled in schools where the primary language of instruction was French in a study of phonological processing. The purpose of their study was to investigate the relationship between phonological processing and word decoding in English-French bilinguals, specifically if there was evidence of cross-language transfer of phonological processes. Tests of word decoding and phonological awareness
were administered in both English and French. The researchers hypothesized that phonological awareness in English (L1) and in French (L2) related to word decoding in both English and French. They controlled for age, gender, and cognitive ability. Their research found evidence that PA transfers across English and French. Moreover, the strongest predictors of word decoding in both languages was PA. PA in French predicted word reading in English. Likewise, PA in English predicted word reading in French. There is thus a growing body of evidence which supports the transfer of PA in children becoming literate in a L2.

While there have been studies investigating the effectiveness of PA interventions in L1 English speaking populations, cross-linguistic studies of PA interventions are rare. MacCoubrey (2003) conducted and evaluated a 12 week PA intervention for at-risk FI students. She identified FI students at-risk for future reading difficulty based upon their PA skills in English and administered a PA intervention entirely in their L2. Forty-six students were assigned to a treatment or control group. The intervention consisted of teaching blending and segmentation skills. The control group engaged in oral French language activities.

MacCoubrey (2003) found phonemic awareness training in French (L2) improved phonemic awareness in English and French. The idea that phonemic awareness can be taught in the L2 and that the child will experience gains in phonemic awareness in both languages was supported by this study. Longitudinal research on L2 PA interventions is needed to see if long-term benefits of interventions are possible. Questions still exist concerning the optimal language of instruction for an intervention, L1 or L2.

SES AND ACADEMIC ACHIEVEMENT

For decades, researchers have been interested in the relationship between academic achievement and SES (eg., Raz & Bryant, 1990; White, 1982). The issues of how to define SES and how to determine which home variables potentially change children's academic success are complex and intertwined. A lack of coherent definition of how to conceptualize SES complicates the research on reading success and SES. The following section describes this complexity.
White (1982) performed a meta-analysis of 200 studies that investigated the relationship between SES and academic achievement. In these studies SES was defined by what White termed the 'typical' definition including factors such as income, education and/or occupation of adults in the household. The meta-analysis found only weak correlations (1722) between SES and achievement when the unit of investigation was the individual. When the level of analysis was increased to a larger level such as the school or district, stronger correlations (r=.73) were evident. The poor correlations at the individual level may be due to the factors behind why SES may be related to achievement such as parental support and family atmosphere. In fact when family characteristics such as home atmosphere were investigated at the individual level, a moderately large correlation (r=.55) was found. Home atmosphere in White's analysis included whether or not the parents take their children to the library, read to their children, encourage their success, and help them with their homework. White (1992) addresses the complicated issue of directionality: "For instance, is the high correlation between home atmosphere and achievement because children do better in school if their parents help them with their homework and encourage them to go to college, or is it because parents start helping their children and taking an interest in the child's previous successes in school"? In other words, does the home atmosphere cause success in school, or does success in school modify the home atmosphere?

Duncan and Seymour (2000) performed a cross-sectional study of children between the ages of 4 and 8 years which was designed to investigate the development of literacy skills in groups of children from differing socio-economic backgrounds. The researchers used what they termed a "global" approach to defining SES by selecting students from low and mid/high SES catchment areas. The measures determining this status were number of private housing units, unemployment figures, possession of a car, and eligibility for food or clothing allowances. Low SES was associated with deficits, for chronological age, in letter knowledge. Low SES was associated with delayed acquisition of letter-sounds as well as delayed PA.

Raz and Bryant (1990) investigated the role of social background in the relationship between children's PA and progress made in reading. Their study, which was partially longitudinal and partially cross-sectional, investigated children from middle-class and 'seriously disadvantaged' homes. They used
the British Registrar General's classification level to differentiate social groups. Social class 2 or 3 on this classification system suggested one parent was either employed at the managerial level or was a teacher or a skilled worker and also that they lived in a middle-class neighbourhood. The children in the socially disadvantaged group fell into social class 4 or 5 (of 5) on the Registrar General's classification and one of the parents was either semi-skilled or unskilled. Also more than half of these families were single-parent homes and all of the 40 families were receiving social security assistance. They found children from middle-class homes were significantly advantaged in terms of three measures of home experience compared to the children from disadvantaged homes: amount of time parents spent reading to their children, number of books owned by each child, and number of visits to the local library. The measure of availability of books was significantly related to the children's PA for both social groups.

Interestingly, Raz and Bryant found that children from disadvantaged homes did not lag in PA until they began school. Then a gulf developed between the two groups that was confounded with less reading progress. A frequently cited weakness in their design (e.g., Bowey, 1995) is that the lower SES group were unemployed and it could be that some skilled or highly educated individuals were part of this group and had time to help their children with reading related skills.

Dickinson and Snow (1987) found SES differences in Kindergarten children's phonological sensitivity. In their study higher SES was conceptualized as parents with college or greater education. Children with lower SES had parents who were unemployed or had unskilled employment. SES differences were found on measures tapping print production, decoding and comprehension of passages. Unfortunately Dickinson and Snow did not equate children for general intelligence.

Bowey (1995) examined two groups of 5 year old children differentiated on their father's occupation and education and followed them to the end of Grade one. The results indicated strong SES differences in preschool performance IQ, general verbal abilities, phonological sensitivity, letter-knowledge, and first-grade academic achievement. When the effects of performance IQ and verbal ability were controlled SES differences in phonological sensitivity remained significant.

HOME SUPPORT
Home support can be conceptualized in a number of ways. Both home reading practices and general literacy activities of the home may impact a child's reading development. Bus, IJzendoorn, and Pellegrini (1995) conducted a meta-analysis investigating reading achievement and home reading practices. They found evidence that 8% of the variance in reading achievement could be explained by the time parents spent reading to their preschoolers. Some researchers have questioned the sufficiency of simply examining the frequency of storybook reading (e.g., Evans, Shaw, & Bell, 2000; Scarborough et al., 1991). Part of this critique is due to the argument that a child's interest may influence frequency of home literacy activities.

Researchers have been investigating home literacy activities and their impact on reading development. Scarborough, Dobrich, and Hager (1991) questioned parents of preschool children and followed these children until second grade. Parents were asked about the frequency of adult reading, parent-child reading habits and book activities within the home. Results indicated the preschoolers who became poor readers (n= 22) had less frequent early literacy-related experiences than the children (n=34) who became better readers by Grade 2.

Debaryshe (1993) considered the relationship between joint picture-book-reading experiences and oral language skills. Her participants were two-year old children and their mothers. Debaryshe found mothers who began reading to their children at an earlier age had children with better receptive language skills. Sénéchal and Cornell (1993) found evidence that a single storybook reading session could increase a 4-5 year old's receptive vocabulary.

Evans, Shaw, and Bell (2000) investigated the relationship between home environment and literacy development for 66 children. Their purpose was to determine the contribution of different types of literacy activities within the home to reading related measures. Frequency of being read to was measured by the number of popular book titles children could identify correctly from a list with real and foil titles. This was done to limit a social desirability response bias. Differences in child age, parental education, and child ability (rapid automatized naming task and a block design of the WPPSI-R) were controlled. Shared book reading at home made no contribution to the prediction of letter naming and letter-sound knowledge in Kindergarten. Home support in the form of activities involving letters did contribute
some variance. Neither receptive vocabulary nor phonological sensitivity was significantly predicted by shared book reading nor by letter activities.

The research on SES and/or home support provides some evidence that learning to read is affected by these variables. However, the results are inconsistent. As phonological development is also likely the outcome of an interaction with reading (Morais, Alegria, & Content, 1987; Perfetti, Beck, Bell, & Hughes, 1987) children with lower SES (subject to a delay in reading development) may develop phonemic awareness as they are learning to read (Duncan & Seymour, 2000) and this may make its development different.

FRENCH IMMERSION CANADA

In Canada, families often have the option of sending their children to elementary school where the instruction is conducted almost entirely in French, French Immersion (FI). Halsall (1994) investigated attrition and retention in FI programmes in Canada and found multiple reasons why children transferred out of FI including such diverse issues such as perceived difficulty learning French, behavioural problems, and the need for more special education support. If children in the early primary grades in FI in Canada experience difficulty learning to read they are often transferred to the English stream where they have missed the benefits of early identification that the English track children experience.

In view of the fact that there is evidence PA can transfer from L1 to L2 (e.g., Durgonoglu et al., 1993) it is important for researchers to investigate whether PA interventions hold for a variety of language groups. While there is a dearth of research investigating the effectiveness of PA interventions for L2 learners, the research which has been undertaken has yielded important findings. These findings suggest that PA interventions undertaken in the L2 are able to help children learning to read. Indeed, the lack of research indicates the need for increased investigation in the area of L2 reading interventions.

The existing research on the development of PA and the transfer of PA from L1 to L2 can be used to create interventions for L2 children. As research progresses and our knowledge about the reading process becomes more refined so too will our ability to create and implement improved interventions to remediate.
reading problems. Given the strength of the research indicating that PA can be taught and that it transfers between alphabetic languages, more study that investigates the ability of PA interventions to help at-risk L2 readers is now needed. Specifically, it is not known if there is an optimal language of instruction, L1 or L2, for FI students. In the Canadian context, researching this question is of interest to educators and researchers alike.

References


"Music critic George Upton (1886) reasoned that women's inability to be creative in music is obvious, because history shows they have written no great music and - 'having equal advantages with men, they have failed as creators.' " (Upton, 1886, p. 22, cited by Stremikis, 2002, p. 86).

If one young girl decides that she should not play drums, or if one young boy thinks that he ought not to play the flute, their choices do not necessarily signal that something is amiss. Probably, these are individual decisions and no cause for concern. Imagine though, that most young girls think they ought not to become drummers, nor most boys flautists. If a student has chosen an instrument that she feels she should play, or more importantly, avoided an instrument that she thinks she should not play—based on what girls and boys "should" do—what are her chances of truly enjoying her music study, or staying with it for any significant amount of time? Are societal conventions inhibiting self-fulfilment?

INTRODUCTION
Reviewing articles published over the past 25 years demonstrates some hope that we may be able to diminish the effects of gender bias in music study. The most likely method for change appears in the form of efforts to provide counterstereotyping examples for reticent girls and boys. Educators may play the strongest role in influencing decisions students make about what instrument to play. Educators may also witness the influence that intervention has on students' continued enjoyment of this musical outlet. Such observations might shed light on other domains of gender equality.

STUDIES OF MUSIC CHOICE
Much investigation has been conducted worldwide on gender and its effect on music study choices. Most of the current research owes a great debt to Abeles and Porter's (1978) "The Sex-
stereotyping of Musical Instruments" and Delzell and Leplla's (1992) "Gender Associations of Musical Instruments and Preferences of Fourth Grade Students for Selected Instruments." Both studies found empirical evidence that the role gender plays in music study choice is a critical one. Further, Abeles and Porter (1978) placed eight instruments on a scale comparing the instruments' perceived appropriateness for male or female players, as indicated by the ratings of their participants. From the "most feminine" to the "most masculine" these instruments were: flute, violin, clarinet, 'cello, saxophone, trumpet, trombone, and drum (Abeles & Porter, 1978, p. 68). Fourteen years later, Delzell and Leplla (1992) confirmed the same gender associations were made, but perhaps were not as firmly held as in the past.

Table 1

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<td>0%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>drums</td>
<td>42</td>
<td>3%</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

adapted from Zervoudakis & Tanur (1994), Pickering & Repacholi (2001)}

**Mayer**: survey of female teachers to determine what instruments they teach

**Abeles & Porter** (instrument assignment): gender associations with instruments (F female; N neutral; M male.)

**Abeles & Porter, Delzell & Leplla** (masculinity scores): musician self-ratings, specific to instruments in chart, score range 0-5, with 0 feminine, 5 masculine

**Pickering & Repacholi**: kindergarten and grade 4 students' first choices of instruments after demonstration (the control students saw and heard instruments but saw no performer).
As they so often do, the conclusions in these studies lead to more questions than answers. I have been a drummer for nearly thirty years and a music teacher for twenty years, and my original interest was to investigate why there has been, and still is, a dearth of female drummers. It turns out that girls do play drums when they are young. What I want to find out is what changes for females between early and late adolescence that causes most of them to shun drums. In my experience, boys still prefer to play the rock instruments (electric guitar, bass, and drums), and everyone, regardless of gender and age, expects boys to fulfil this stereotype.

Another aspect of these studies points to an apparent learned inflexibility in boys with regard to their ideas about what instruments are appropriate for boys and girls to play. The question of this inflexibility is an interesting one. What factors are there that force these limits on boys but appear to leave early adolescent girls in a better position to make gender-inconsistent choices? The answer to these questions is likely beyond the scope of studies exclusively related to music study choices, but these studies do seem to represent a credible starting point for such an investigation.

"Gender-appropriate" or "gender-consistent" instruments, as cited in each of these studies, indicates instrument choices consistent with both the author's and others' previous findings of what instruments children and adults generally ascribe as appropriate for a particular gender. Thus, a girl's choice of flute, an instrument rated on the feminine end of the scale, is indicated as gender-consistent while her choice of drums is gender-inconsistent.

Some of the recurring themes from these studies conducted over the past 25 years include:

- confirmation that gender-stereotyping in music continues;
- examinations of trends in children's musical instrument choice as determined by instrument characteristics;
- assessments of the self-image of the studies' participants and its effect on instrument choice;
- the effect of parents, peers, and other role models in informing students' instrument choice; and
- the great responsibility of music teachers in reducing gender associations with musical instruments.
Each of the studies provided clear examples that there is continued gender-stereotyping of musical instruments, and all cite Abeles and Porter as the benchmark report. Delzell and Leppla (1992), Sinsel, Dixon, and Blades-Zeller (1997), and Pickering and Repacholi (2001) specifically sought evidence of Abeles and Porter's findings in their own countries and decades. Each study confirmed that masculine sex-typed students still preferred masculine-stereotyped instruments and that female sex-typed students still preferred female-stereotyped instruments. Sinsel, Dixon, and Blades-Zeller also found that androgynous students preferred neutral instruments. Zervoudakes and Tanur cite a study by Davis (1978) in which investigators surveyed members of the four orchestral sections (strings, brass, woodwinds, and percussion) to determine their images of the players from other sections. The data from focus groups found that while string players perceive brass players as "slightly oafish and uncouth," 'loud-mouthed and coarse,' and 'liking to be in the limelight,' brass players see string players as "oversensitive and touchy," 'weaklings,' and 'precocious'" (Davies, 1978, p. 202203, cited by Zervoudakes & Tanur, 1994, p. 60). Zervoudakes and Tanur conclude "one does not have to stretch one's imagination too far to see the characterization of the brasses as a negative masculine stereotype and of the strings as a negative feminine one" (1994, p. 60).

Harrison and O'Neil (2003) were most concerned with establishing patterns in children's judgements about other children's preferences. They found that both boys and girls preferred gender-consistent instruments, boys expected other children to share their own preferences and girls expected the same of other girls (Harrison & O'Neill, 2003, p. 396). Notably though, girls in the fourth grade, only, were more likely to regard another child's actual preferences and combine that observation with that other child's gender to make decisions about further preferences that child might have. The fourth-grade girls expected that another's affinity for an instrument was not based solely on gender. This finding is similar to Delzell and Leppla's earlier study (1992). In earlier and later grades, girls placed more emphasis on gender. Across grades, however, boys were rigid in using gender as the sole assessment for other children's potential preferences (Harrison & O'Neil, 2003). The relative flexibility and
openmindedness of girls is a recurrent theme in many of these studies and so also surfaces repeatedly in this review.

AESTHETICS QUALITIES AND DIFFICULTY AS INFLUENCES

One possible outcome of all this research is to identify ways to create an atmosphere in which individuals feel free to choose an instrument based solely on that instrument's inherent aesthetic qualities, and not on their own gender. Thus it is disheartening that the consideration of inherent aesthetic qualities of instruments was under-emphasized in these reports. Conway recorded frequent, vague explanations from students as to why they chose a particular instrument, such as "I just liked the sound (2000, p. 13). Sinsel, Dixon, and Blades-Zeller reported that roughly two-thirds of children indicated disinterest in a particular instrument based on the sound of the instrument, the pitch or timbre of which was either too high or too low for a particular child's tastes (1997, p. 398), but none of these observations was given much weight in the researchers' discussions. An investigation of how sound relates to gender associations might shed some light on how a particular instrument becomes charged with masculine or feminine traits. Pickering and Repacholi (2001) stated once that pitch, timbre, and other aesthetic qualities might be influential in a child's choice, but strangely, that idea seemed to them, as well as to the others, to be insignificant. An instrument's sound played so small a role in Abeles and Porter's study that it was eliminated as a determining factor in instrument choice.

However, as much as the sound of an instrument was ignored in determining its popularity with either boys or girls, researchers noticed that the perceived or actual difficulty in learning an instrument does seem to affect the attractiveness of the instrument. In examining children's satisfaction with music lessons, Rife, Shnek, Lauby, and Lapidus (1998) found that woodwind players were generally happier with their lessons than were the string players, and that gender plays a significant role in children's satisfaction with lessons. Rife et al. suggest that these findings may be due to the difficulties encountered when playing string instruments, which result in slower rates of progress and success than in playing woodwinds. In examining success and satisfaction with instrument study, Legette (1998) found that an instrument's perceived difficulty is more likely to have a negative effect on boys than on girls. He found that girls are more likely to
attribute musical success to effort, and thus they are more likely to work harder at difficult instruments and stick with them. Boys appear to attribute musical success to luck, having an "either you get it or you don't" attitude and, and thus are much quicker to abandon a difficult instrument (Legette, 1998, p. 105). Le Blanc and Jin (1999) reported that females enjoy a wider range of styles, especially among the "serious" styles, and that girls are generally better disposed to music than boys.

Most researchers concluded that it is often difficult to ascertain exactly what students think of particular instruments, let alone why they think what they do. Responses to the question of why a student liked or disliked a certain instrument were often because "It's cool" or because "It sucks." Bruce and Kemp (1993) were equally confounded by the kinds of responses their questions garnered. They could find no clear reason for children's perceptions and choices. For example, the trombone was popular with boys and girls, but the researchers could not differentiate the attractiveness of its sound from the instrument's size, its polished appearance, or the characteristic movements of its player as the reason that many students gravitated towards it with great enthusiasm, after a performance.

SELF-IMAGE IN INSTRUMENT PREFERENCES

Self-image, in relation to gender and social roles, also appears to play a significant role in instrument preference. In their Sex Role Inventory, Sinsel, Dixon, and Blades-Zeller (1997) did not ask students directly to assess their gender orientation. However, through a series of questions, each student's orientation was established, and through another series of questions, the same students were found to make gender-consistent choices in the instruments they elected to play. Self-image can also play a role in contradicting stereotyping. In Conway's (2000) study, many of the stereotype-breaking musicians saw themselves as being rebellious in character. Many of those students who were playing gender-inconsistent instruments reported that they chose those instruments in a conscious effort to be different. One female trombone player was quoted as explaining, "Well, I knew that I just didn't want to play the flute. I didn't want to do like every other girl in the grade was [doing]" (Conway, 2000, p. 10). Both Sinsel, Dixon, and Blades-Zeller (1997) and Conway (2000) found that implicit and explicit self-image was a factor affecting young
people's instrument preference. In her study of successful female musicians, Stremikis (2002) observed the explicit self-image as an important factor for older, established musicians. Stremikis noted that successful female musicians took pride in their determination, and that they perceived themselves as highly self-directed and less conforming to gender stereotypes than hobbyists. As might be expected of adult participants, Stremikis' interviewees exhibited a much more socially aware view of gender-stereotyping and its potentially damaging effects.

PARENTAL INFLUENCES

One might expect a parent's role in a student's musical studies to be very important in terms of motivation or the creation of biases. Even on a simpler level, parents often exert their influence in their roles as financial supporters. The one who "pays the piper," or in this case, the piper's teacher, often calls the tune. Abeles and Porter (1978) found that parents have very clear ideas about which instruments are appropriate for which gender and that this greatly influences their children's choices. Conway (2000) also explored parental support with her participants. Though she recognized that parents have a strong impact on their children's choices, this was not necessarily consistent with stereotyping: parents were found to both encourage and discourage continued adherence to gender stereotypes. One female flautist explained "Well, my parents really wanted me to like [sic] play the flute. First it was the violin and I said no so they got me a flute and I started working on it. I actually wanted to play the drums, but they said 'no way'" (Conway, 2000, p. 11). A female tuba player had a different experience: "My mom was with me when I tried the tuba. She thought it was great" (Conway, 2000, p. 10).

Parents, of course, are not found to be singular in their personal and direct influence. Conway (2002) and Pickering and Repacholi (2001) found that parents are not likely as influential as peers or professional musician role models. Most of the articles reviewed agree that peers are a major influence on instrument study, acting either as role models or simply as critics. "Why is such a little girl playing bass?" was a common question from fellow students and parents overheard by one of the student participants in Conway's study (2000, p. 9). The female contrabass player in question was the only female bass player at her school. Pickering and Repacholi thought that "because [the children's]
testing was conducted in groups, children may have avoided expressing a preference for certain instruments and/or musicians for fear of being ostracized by peers" (2001, p. 625). Unfortunately, their study did not include individual interviews, which may have produced different results. Thus Pickering and Repacholi could only conclude that it is possible that children are more likely to respond to an example set by their peers than by adults. This is consistent with Abeles and Porter's earlier expectations that peer role models would have a very strong effect on instrument gender associations. To control for this assumption, Abeles and Porter showed pictures to boys and girls of instruments being played by musicians whose gender was obscured. They expected that if a certain instrument was shown being played by a boy, that both boys and girls would associate that instrument with boys only, and vice versa.

ROLE MODELLING

Further, in terms of professional, or at least adult, role models, there is much evidence that role-modelling is a very strong factor in instrument choice. Bruce and Kemp (1993) hypothesized that after seeing a concert in which both males and females performed, boys would prefer masculine instruments when they were played by either gender, but would choose a feminine instrument only when it was played by a male player. They expected girls to have a broader range of instrument selection, but still generally to prefer instruments demonstrated by women. Their hypothesis was supported when the results showed that the attractiveness of the instrument to both boys and girls changed when the gender of the player changed. Even the flute, previously defined as the most feminine of the instruments rated, attracted the boys when a man played it. After the concerts, the children were asked to draw a picture of an instrument they saw. Boys drew boys playing and girls drew girls, but the instruments they chose to depict did not necessarily reflect the instrument they chose to examine after the concert. Interestingly, the majority of boys drew flutes. Bruce and Kemp assume that this is because the flute is easier to draw than the trombone, for example. This idea of boys choosing the easier path is consistent with Legette's (1998) previously cited findings regarding boys' reaction to difficult-to-play instruments.
Reflection on a music teacher's power to affect her student's ideas about music and musical instruments is a theme common to many gender-related music studies. The teacher's potential power is an area that most of the researchers highlight as the best hope for change in gender-related attitudes in music studies. Stremikis' (2002) adult participants repeatedly cited educator and mentor influence as reasons for or against choosing music as a career, often relating negative experiences of gender discrimination. In terms of what instrument to play, once music has been chosen as a pursuit, Sinsel, Dixon, and Blades-Zeller cited Byo (1991) for showing evidence that educators can influence students' choices by "biasing the manner of initial instrument presentation" (Sinsel, Dixon, & Blades-Zeller, 1997, p. 400). Similarly, Pickering and Repacholi (2001) found that children exposed to counter-examples were less likely to choose gender-consistent instruments. In fact, fourth-grade boys were the only ones to display significant preference for gender-appropriate instruments even after counter-examples were given. Pickering and Repacholi warned, however, that "counterexamples" run the risk of gender-stereotyping in the opposite direction to that which children are now exposed. On this same theme, they also noted that there is further study needed to determine how long the effects of the counter-examples will last. In some initial investigations, Pickering and Repacholi noted that kindergarten-aged children are less susceptible to counterexamples (i.e. that they hold their gender stereotypes dearer). Boys, because of their general inflexible opinions, may need repeated exposure to counter-examples, if those examples are to have their desired effect. Sinsel, Dixon, and Blades-Zeller also confirmed that boys hold stereotypes more firmly than girls, and thus concluded that boys need more help to broaden their potential musical choices (Sinsel, Dixon, & Blades-Zeller, 1997, p. 400).

Delzell and Leppla (1992) suggested that even though many music teachers are sensitive to issues of gender associations with musical instruments, many other individuals that the teachers and their students encounter will not be equally sensitive, and so it is the teacher's responsibility to educate those individuals. Costley also asserted that it is a teacher's responsibility to address directly the damaging practices and stereotypes she encounters, such as societal tendencies to judge female instrumental performers by their merits as women rather than simply as artists,
and the feeling that "there is an air of immorality about women performers" (Costley, 1993, p. 202).

In terms of gender-stereotyping, most of these studies from the last 25 years concluded that many of Abeles and Porter's 1978 findings were still relevant. However, researchers still seem to be optimistic that efforts to reduce or even remove students' gender associations with musical instruments could prove fruitful. Delzell and Leppla (1992) are confident and encouraged that the popularity of the highly gender-associated instruments is increasing for members of the opposite sex. They attribute this positive shift to the increased sensitivity to stereotyping of policy makers, publishers, and educators. Conway (2000) attributes what changes are afoot to more direct and personal influence than the broader, systemic view adopted by Delzell and Leppla. Conway stated that there is now both pressure to conform and support for individuality in students' choices, and that parents, peers, and teachers can have a liberating effect if they choose to help. She maintained that studying specific cases may be the way to understand more fully what is happening with our children, but she does not conclude her study with any clear method for further study or steps to be taken to ensure that the stereotyping is eliminated.

Yet, as noted previously, other researchers overwhelmingly place the responsibility for eliminating stereotyping squarely on the shoulders of music teachers, as music teachers occupy the most obvious platform for making explicit the ideas and biases at work in society and helping their students to find their way past them. To be successful in directing this shift in students' attitudes, teachers will have to use all available resources and appeal to policy-makers for more support. Still, the one method thought to be most effective by these researchers is the manipulation of the presentation of the instruments to students to provide positive and "gender-inconsistent" counterexamples of musical performance and performers.

Thus the music teacher will be responsible for judging a student's character as well as the mood of a whole class, and will need to take appropriate measures for manipulating the presentation of role models. According to Sinsel, Dixon, and BladesZeller (1997), one of the most precise interventions a teacher can make involves the consideration of children's psychological sexrole. They argued that "better student-
instrument matches, perhaps giving consideration to gender
association and selfidentification, may increase the likelihood of
instrument satisfaction among students, which, in turn, could
increase retention rates" (Sinsel, Dixon, & Blades-Zeller, 1997, p.
400). Despite coming to their conclusion from a slightly different
angle than many of the other researchers, having used the
quantitative Sex Role Inventory, Sinsel, Dixon, and Blades-Zeller
support the idea that role-modelling may play a positive part in
freeing students' choices. They suggested that educators could
employ current stereotypes and subvert them so that "across
successive generations, gender-based distinctions between
musical instruments may become gradually blurred. As a result,
stigmas against gender-inappropriate instruments may be
lessened, and student retention and instrument balance may be
maximized" (Sinsel, Dixon, & Blades-Zeller, 1997, p. 400). Further
research in this area could be very beneficial to music
teachers in their efforts to match students with appropriate
instruments and modify genderstereotyping behaviour.

Pickering and Repacholi believe that genderstereotyping
can be modified (see Table 2), but question how long the
modification may last. Table 2 shows the results of their
instrument demonstration experiment. Though there are
differences in student responses between their control,
stereotype, and counter-stereotype groups, their sample sizes (27
or 25, depending on which class they used) do not show those
differences to be convincing or statistically significant. They
concluded that more work needs to be done to examine what
lasting effects, if any, can be realized by this exposure to counter-
examples. Their paper ends with the challenge that "ultimately,
the message that needs to be conveyed to children is that anyone
can play these instruments" (Pickering & Repacholi, 2001, p.
642).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Proportion of Children Selecting Specific Instruments as a Function of Videotape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flute</td>
<td>Violin</td>
</tr>
<tr>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>k-boys</td>
<td>12%</td>
</tr>
<tr>
<td>k-girls</td>
<td>46%</td>
</tr>
<tr>
<td>4th-boys</td>
<td>4%</td>
</tr>
<tr>
<td>4th-girls</td>
<td>15%</td>
</tr>
</tbody>
</table>
Bruce and Kemp echo this statement and emphasize that 'Instrumental teachers may need to be more aware of the sexstereotyping operating not only within themselves, but also accorded to the instruments they teach. Providing positive role models may help children to see the false reality of their perceptions of instruments, and serve to raise their awareness of discrepancies between actual instrumental qualities and false, stereotyped images' (Bruce & Kemp, 1993, p. 217).

CONCLUSION

In the study of instrumental music in particular, a fruitful, enjoyable, and prolonged relationship with any given instillment is not always a guarantee. Among other factors, it is clear that gender-stereotyping is a major influence on the musical pursuits of both boys and girls. So if, as Pickering and Repacholi (2001) have suggested, we may be able to increase boys' and girls' willingness to break gender stereotypes with repeated exposure to counter-examples and, as Sinsel, Dixon, and BladesZeller (1997) have suggested, we can increase the likelihood of instrument satisfaction among students, it seems to me that we must. For, at the beginning of the 21st century, how can we possibly justify any notion of gender-appropriate activities? If we cannot destroy this idea in such an abstract domain as music, how can we ever achieve more global and equal opportunity for everyone?
References


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Edited by:
Nancy L. Hutchinson
THE HOMOGENEITY OF CHINESE CURRICULUM
IDEOLOGIES:
CONFUCIUS, MAO, AND POST MAO
Han Han

I came to acquire fragmentary knowledge about Confucius and his ethics in the Criticizing Confucianism Movement during the later period of the Cultural Revolution that swept across China from 1966 to 1976. When I was an elementary school student, we were encouraged to criticize our teachers who were said to have been "poisoned" by Confucianism. After the radical Cultural Revolution was over in 1976, Confucius' contribution to education was recognized. I received my secondary and higher education in the post-Mao educational reform in which education was oriented to the goal of China's modernization and economic development. The dramatic changes in attitude towards Confucian education arouse my curiosity: given the two thousand years of Confucian domination in Chinese education until the beginning of the 20th century, and given the permeation of Confucian ethics in the fabric of Chinese society, did Mao really rid himself of the Confucian influence in his educational revolution? Does Confucianism have any influence on the current educational reform while China is on her full drive to modernization? Based on my educational experiences in Mao's Cultural Revolution and the Post-Mao reforms, I perceive that Chinese educational ideologies have changed little in instrumentality related to social ideals, virtues, values, and purposes. Chinese curriculum has always served as an instrument for social reforms, and Chinese education is more for social well-being as a whole than for personal development or the individual pleasure of learning.

The humanistic tradition of curriculum studies (Lincoln, 1992) holds a historical perspective, seeing curricular issues in a larger social context. From this perspective, the changes in Chinese educational ideologies could be viewed as a process of evolution, and the radical revolutions and reforms as not breaking the links between Confucius and Mao and the post-Mao reformers regarding the fundamental functions of Chinese education. To develop this argument, the following discussion in this paper is framed within the comparison of the educational values and
purposes in the three historic eras of Confucius, Mao, and post Mao. The purpose of the discussion is to examine the cultural homogeneity hidden in Chinese curriculum ideologies across these three bounded historical contexts.

This paper first defines the term curriculum ideologies to set the dimensions of comparison. Then the review of the educational ideologies of Confucius, Mao, and the post-Mao reformers leads to the discussion of their educational ends in relation to their respective social ideals. In light of the humanistic approach to curriculum studies, a comparative analysis scrutinizes the values shared by Confucius, Mao, and the post-Mao reformers in educational ideologies. This historical unfolding of Chinese curriculum ideologies may enhance understanding of the current educational reforms taking place in China.

THE DIMENSION OF EDUCATIONAL IDEOLOGY

The Oxford English Dictionary (2000) defines ideology as "a systematic scheme of ideas, usu. relating to politics or society, or to the conduct of a class or group, and regarded as justifying actions, esp. one that is held implicitly or adopted as a whole and maintained regardless of the course of events" (Retrieved April 6, 2003, from http://dictionary.oed.com/cgi/entry/50111233). This definition indicates the following dimensions of ideology: (a) it is a construct of political and social ideals and values of a class or group; (b) it dominates as well as justifies the behavior of this class or group; and (c) it functions in an implicit, taken-for-granted way. Ideology is different from theory in value commitment. Although theory also justifies practice, "ideologies are typically regarded as value-laden commitments, whereas theories in the social sciences are frequently idealized as merely descriptions of the world rather than an expression of what is to be valued" (Eisner, 1992, p. 303).

 Political and social ideologies furnish educational and curriculum ideologies. As an impetus in education, "ideology provides society at large, and teachers in particular, with very clear standards by which to judge what it is appropriate to teach, and what kinds of expectations to have of their students" (Connell, 1975, p. 197). Eisner (1992) claimed that when certain value systems and ideals are set up as virtues and social goals, education
is the very process aiming to achieve these virtues and goals through schools and teaching (p. 302). Educational ideologies serve as the rationale for educational priorities and for types of curriculum development and provide a set of beliefs "about what school should teach, for what ends, and for what reasons" (p. 304). Curriculum ideologies indicate the beliefs and values of those who have influence over school curriculum; in turn, school curriculum modifies and reinforces the beliefs and values by permeating them in school routines.

Educational ideologies have been an axis around which to arouse arguments on the definitions of curriculum. Jackson (1992), after analyzing the confusion caused by various definitions of curriculum, came to the conclusion that "whatever definition of curriculum we come up with, it functions within a larger set of beliefs about what the schools should be doing," because "all definitions are parts of arguments" with "attempts to persuade us of the value of looking at something in a particular way" (p. 12). Different definitions of curriculum reflect the perspectives of different groups who hold beliefs about what is worth teaching in school for what purposes and to what ends. Jackson pointed out that all views of curriculum were "political" and had "consequences that will serve the interests of some but not all" (p. 21). Underpinning the different definitions of curriculum are different political and social ideologies; these ideologies, in terms of social ideals, beliefs, and values, are achieved by means of education.

The above discussion on the components of educational ideology and the nature of curriculum definition illustrates the relationship between social and political ideologies and educational/curriculum ideologies. The former informs the latter and is manifested in the latter. Over 2000 years in Chinese history, the Confucian ideologies permeated Chinese education, culture, and social life. However, the radical social changes in 20th century in China, particularly in Mao's Cultural Revolution during the 1960s, removed the dominant status of Confucianism in Chinese society. After the Cultural Revolution, China experienced a profound political and economic reform. This reform is still going on today. Considering that Confucius, Mao, and the post-Mao reformers have had a deep impact on Chinese education, the following discussion focuses on their educational ideologies and
on the dimensions of social and political ideals, values, beliefs, educational purposes, and curriculum priorities.

CONFUCIUS' EDUCATIONAL IDEOLOGIES

Confucius (551 — 479 B.C.E.) has been respected as a great teacher, educator, philosopher, and sage throughout 2,400 years in China. Confucianism, a system of thoughts and ideas based on his teachings, has had a deep impact on Chinese life, thoughts, culture, and education. The prominence of Confucius is best described in the Records of the Historiographer (Shi Ji), a history book written around 145 — 86 B.C.E. in the Han Dynasty: From kings to worthy men under Heaven, there have indeed been multitudinous! When they lived, they were glorified; when they died, they ceased to be. Master Kong (Confucius) was a commoner whose name has come down to us for more than ten generations now, and who has been upheld by all scholars as their foremost teacher. Those who discourse on the Six Classics, including emperors, kings and marquises, all look upon the Master as their highest authority. He may be called the wisest indeed! (as cited in Huang, 1997, p. 4)

CONFUCIUS, HIS SOCIAL IDEALS, BELIEFS, AND VALUES

Confucius lived in the turmoil of the Spring-Autumn and Warring States era (770 - 221 B.C.E.) that followed the end of the Zhou Dynasty. At the time there arose in China several kingdom states that continually made war on each other competing for territory and wealth. Years of wars made people suffer from disasters, destitution, death, and homelessness. Awe to Heaven (similar to the reverence for God in Western culture) was diminishing among the rulers of states who governed with tyranny and was getting further away from the Way of Humanity. The rites and humane governance practiced by ancient sage kings declined, and the society was in disorder (Dai, 1996; Hoobler & Hoobler, 1993). What filled the state governments were plots and strategies against each other, and social harmony was beyond their considerations.

Such decline and disorder made Confucius see the past Zhou Dynasty as a golden age (Hoobler & Hoobler, 1993). He cherished a harmonious society with humane governance, a society modeled by the ancient sage kings. Central to his
Confucian ethics, "the Way" was the supreme doctrine. It embodied humanity in rituals—a set of rules and institutions to regulate people's actions, guarantee security to the sovereign, and bring a good government to people (Huang, 1997). "The Way of kings" referred to the Way of humanity government implemented by the ancient sage kings (Shen, 2001). Lamenting that he would never hear about the Way of humanity prevailing in the world again, Confucius sighed, "If, in the morning, I should hear about the Way, in the evening, I would die contented!" (Analects, 4.8). He set up the ideals of social order, harmony, and humanity as a value matrix, advocating, "To restrain oneself and return to the rituals constitutes humanity" (Analects, 12.1). He believed that such social ideals could be realized by restoring the rituals and morality of the ancient kings.

CONFUCIUS' EDUCATIONAL GOALS: MORAL TRANSFORMATION

Confucius' teaching was based on his social ideals, beliefs, and moral values. The goals of his education were to serve government and bring harmony and order to the society. Confucius made himself an educator, and his private school was a celebrated institution in his time. However, his real pursuit was political success (Zhu, 1992). He aimed at producing gentlemen who acknowledged the Way, did the rightness, served in government, and helped rulers govern in the Way of humanity. To reach his lofty ideas, he believed that the educational process started with the responsibility of the individual, then the family, then the state, and then the empire. A gentleman should achieve self-cultivation first, then family harmony, then good order in the state, and finally peace in the world. Such making of a gentleman integrated the individual with the well-being of the country and associated family harmony with the good order of society. Accordingly, his teaching emphasized moral education and moral transformation (Shen, 2001, p. 4) of individual people.

In line with his educational goals, Confucius' education was elite oriented and humanism based—producing gentlemen with superior humanist morality for implementing humane government and performing rituals. In Confucius' opinion, it was elites, including rulers and scholarly officials, who were the cornerstone of social order and humanity. If they desired and modelled goodness, people would be good accordingly. "The
gentlemen's moral character is wind and the small man's (ordinary people) moral character, grass. When the grass is visited by the wind, it must surely bend" (Analects, 12.19). Therefore, Confucius encouraged those who excelled in office to learn, and those who excelled in learning to take office (Analects, 19.13). The very aim of acquiring rituals at Confucius' school was "to take office and implement the sage kings' Way of humane government" (Huang, 1997, p. 180). The scholar-official, with humane character to carry out benevolent governance, was the objective of Confucian curriculum.

This orientation does not mean that Confucius ignored the education of ordinary people. The moral code is the core of Confucian education. The restoration of ancient rituals and virtues would bring about moral transformation and behavioral amelioration in grassroots people as well as in gentlemen. The idea of moral transformation was based on Confucius' belief that human nature was neutral at birth. He said, "By nature, people are close to one another; through practice, they drift far apart" (Analects, 17.2), meaning that people acquired goodness and evil in later life owing to the environments in which they were brought up and the company they kept (Huang, 1997, p. 165). His words indicated that all people could grow if they learned to "aspire after the Way, adhere to virtue, rely on humanity, ramble among the arts" (Analects, 7.6). Education was the means of cultivating virtues in people. The deep internal transformation of people would bring about behavioral reform (Tweed & Lehman, 2002, p. 92). Inner-cultivation of morality through education would lead to self-regulation and selfreflection, which in turn would guarantee a safer and more harmonious society. Confucius elaborated the importance of moral education in his teaching as follows, "If you govern them with decrees and regulate them with punishments, the people will evade them but will have no sense of shame. If you govern them with virtues and regulate them with the rituals, they will have a sense of shame and flock to you" (Analects, 2.3).

THE CURRICULUM OF CONFUCIAN EDUCATION

Confucian education was for governing and establishing social relationships. As his education centered on the moral code and rituals of ancient sage kings, his curriculum exclusively focused on the culture, history, literature and documents of the past generations of the kings. It is said that Confucius collected...
the documents of the Zhou Dynasty, a golden dynasty that he cherished most, and edited them into Six Classics: Poetry, History, The Rituals, Music, the Book of Change, and the Spring and Autumn Annuals (Dai, 1996, p. 95). Dai (1996) points out that the ultimate aim of these classics was governing. The instructional contents concentrated on these classics, as he explained, "Inspire yourself with Poetry, establish yourself with The Rituals, perfect yourself with Music" (Analects, 8.8). Since the curriculum was totally associated with the rationale and ethics of government, Confucian education was more about "applied politics" than about humanity.

Confucius’s sole focus on the humanity of government determined his curriculum ideologies of what was worth teaching for what purpose and to what ends. The moral code and rituals of ancient sage kings were the most worthwhile knowledge for strengthening virtue and moral transformation; education was meant to produce intellectual elites to maintain the rituals and practice humane government. While encouraging intellectuals to take office and devote themselves to humanity knowledge, Confucius disregarded practical knowledge and excluded education in science and technology. He instructed, "The gentleman is not a utensil" (Analects, 2.12), implying that a gentleman should be well accomplished in virtue and classics so as to take greater responsibilities, instead of involving himself in a branch of learning or skill for one purpose. He was disappointed with Fan Xu, one of his students, who came to ask about farming and gardening (Shen, 2001, p. 3). He lamented, "What a small man Fan Xu is! If the sovereign loves the rituals, the people dare not be irreverent; if the sovereign loves righteousness, the people dare not be disobedient; if the sovereign loves truthfulness, the people dare not be dishonest. In that case, people from other states will flock to him with their children, swaddled on their backs. What need is there for farming?" (Analects, 13.4) In Confucius’ eyes, education was to foster elites for humanity government, not to equip people with specific skills or knowledge of trades.

THE ESTABLISHMENT OF CONFUCIAN DOMINANCE IN CHINA

Confucius did not see during his life the advocates of humane governance being accepted by any of his contemporary
kings. However, he could never imagine that, after his death, his ideologies would have a tremendous impact on Chinese society and education. In competing with other schools of philosophy, the Confucian school suffered setbacks, but the Confucian ideology finally enjoyed recognition in the political arena. From as early as the Han Dynasty (206 B.C.E — 24 A.D.) to some later dynasties, "only the scholars from the Confucian school could advise political leaders" (Shen, 2001, p. 3). This phenomenon was called "suppression of the hundred schools and the exclusive recognition of Confucian techniques." When the Confucian ideologies were established by the emperors of various dynasties, a set of imperial examinations was designed based on the classics of Confucian school to select the worthy and the talented to serve as officials at court as well as in provinces. "This system, set up during the reign of Emperor Yang Di (605 — 618) of the Sui Dynasty and abolished by Emperor Guang-xu of the Qing Dynasty in 1905, lasted about twelve to thirteen centuries" (Huang, 1997, p. 10). Promoted by elites, implemented by government policies, and reinforced by imperial examinations, Confucian ethics and educational ideologies were instilled in the fabric of Chinese culture and merged with Chinese tradition. Just as Eisner (1992) depicted, "When a particular ideology becomes pervasive or has no competing alternative, it tends to become invisible" (p. 303), the Confucian ideologies have been practiced by Chinese wherever they were, sometimes without being aware of them (Huang, 1997, p. 10). Confucianism was so deeply rooted in Chinese literature, drama, and literacy education that both Chinese intellectual elites and grassroots people took Confucian doctrines for granted. However, other ideologies have also dominated in China.

MAO'S EDUCATIONAL IDEOLOGIES

Mao Zedong (1883 — 1976) was the first Chairman of the People's Republic of China from 1949 to 1976. As a Marxist, nationalist, and communist, Mao devoted all his life to the struggles for the freedom of China from feudalist warlords and foreign invaders. His influence on the ideologies, education, and development of China is no less great than that of Confucius.
MAO, HIS SOCIAL IDEALS, BELIEFS, AND VALUES

The formation of Mao's social ideals can be traced to the turmoil of Chinese society at the turn of the century, just as the formation of Confucius' ideals can be traced to a period of turmoil in China's history. At the time of Mao's rise, China was declining under the regime of the Qing government. In 1840, Great Britain had started the Opium War to force China to open to opium trade. Since then, some other Western imperialist and colonialist powers had rushed into China, making China a semicolonial and semi-feudal country. This period of history lasted for about one hundred years until 1949 (Spring, 2001). It was also a period when Chinese intellectuals went overseas to seek "remedies" for China, and they introduced to China Western democracy, philosophy, education, science and technology (Clopton & Ou, 1973). They criticized Confucianism for impeding China's progress in science and technology (see Huang, 1997; Shen, 2001). Some of them even "carried the revolution beyond the political border into the realm of values," believing that "Confucianism must be discarded so that China could achieve true modernization" (Clopton & Ou, 1973, p. 4). The early 1920s witnessed the new cultural movement initiated by young Chinese intellectuals, the birth of the Republic of China, and the death of the Qing Dynasty. However, the instability of the young republic led to years of civil wars. It was in this social situation that Mao came into contact with some new ideas, especially the ideas of Marxism and Soviet revolution. These new ideas formed his "Marxist ideal of a classless society governed by peasants and workers" (Pinar, Reynolds, Slattery, & Taubman, 1995, p. 816). His social ideal was clear: "the people of China have acquired a vision of a new society to come—a society where people live in peace, prosperity, with moral integrity, in an egalitarian society" (Connell, 1975, p. 31).

After the People's Republic of China was founded in 1949, Mao started to implement his ideal of building a new socialist country. He faced two huge tasks: (a) developing the economy, and (b) educating Chinese to accept Marxism and socialist ideologies. He believed that the masses—the proletarian class of workers and peasants—were the revolutionary and creative power to drive China to becoming a prosperous socialist country (Kwong, 1979). On one hand, he gave a primary importance to transforming the masses with socialist
consciousness and involving them in the developmental process (Kwong, 1979, p. 43). On the other hand, he depressed "a minority bourgeois social class and intellectual elites" (Pinar, et al., 1995, p. 816) and would re-mould those intellectuals with socialist ideologies (Kwong, 1979; Spring, 2001). He believed that the socialist China was a new society and must be governed by the new socialists. Thus one aim of education was to serve the proletarian politics and to integrate politics with productive work. Education must contribute to the creation of a new socialist man—a worker with the knowledge of modern science and technology (Lofstedt, 1980, p. 47).

MAO'S EDUCATIONAL GOALS: RED AND EXPERT

Socialist ideology transformation was an important goal of education in Mao's time. Education played the role of creating the outlook necessary for the development of a socialist economy, so that "the younger generation would acquire a love for labor and understanding of the proletarian ideals and ideology" (Kwong, 1979, p. 44). Pinar et al. (1995) also commented that the ultimate goal of Mao's education "was to ensure that socialist consciousness would pervade the People's Republic of China" (p. 816).

This educational goal was clearly reflected in Mao's education policy. He said, "Our education policy must enable everyone who receives an education to develop morally, intellectually, and physically and become a well educated worker imbued with socialist consciousness" (as cited in Kwong, 1979, p. 45). In line with this education policy, the ends of school education were to create Red and Expert builders and successors of socialist China. The term Red covered a wide range of socialist morality, including the political correctness in Marxism and Maoist thoughts; socialist consciousness; loyalty to the people, country, and the Communist Party; love for labour; and an industrious and scientific attitude. The term Expert referred to the mastery of knowledge, science and technology in one's discipline. The integration of Red and Expert was a criterion for the evaluation of students at all levels of formal school education, and any polarization of the two factors was not desirable. School education should foster students who were not only correct in
political position, ideologies, and moral quality, but also who had knowledge and expertise in the fields in which they were engaged.

THE CURRICULUM OF MAO’S EDUCATION POLICY

Informed by Mao’s education policy, all formal educational programs in Chinese schools reflected the division of education into its moral, intellectual, and physical components, and these three provide a useful way of describing the objectives of the curriculum (Connell, 1975). But moral development was seen as the most important. "Mao saw the inculcation of socialist ideology as an essential part of the curriculum. If due importance were not given to ideological work, economic and technical work would go astray" (Kwong, 1979, p. 50).

Balanced development in morality, intellectual knowledge, and physical fitness was required at all schools. Moral education was carried through in political studies, which "has always been required of all students" and "has been enforced at all levels in schools" (Lin, 1993, p. 3). It included courses on Marxist Philosophy, Political Economy, the History of the Chinese Communist Party, and the History of China. All these courses were based on Marxist doctrine and perspectives. Intellectual knowledge was taught through such courses as Chinese language, foreign languages, mathematics, general science, and geography. Physical development was achieved through physical education and sports. Such basic courses as political studies and physical education ran from elementary education through to secondary and even tertiary education.

THE CULTURAL REVOLUTION AND EDUCATIONAL REVOLUTION

There are different interpretations of the reasons that Mao initiated the Cultural Revolution (e.g., Hayhoe, 1989; Kwong, 1979; Lofstedt, 1980; Spring, 2001). But it is recognized that the Cultural Revolution was an ideological revolution for the purpose of reinforcing the socialist ideology by completely rooting out the deep-seated feudalist and bourgeois ideologies. Kwong (1979) wrote about the start of the Cultural Revolution: "In the mid-sixties, after twenty years of continuous efforts, the tremendous difficulties in ideological transformation became apparent" (p. 45). Mao perceived that despite changes in the social and economic systems, the feudalist ideas of the previous era remained, part of which was Confucianism. Bourgeois ideology
was still deeply rooted in a large section of the population. Recognition of the difficulties in bringing about real ideological changes led Mao to increase his emphasis on raising social consciousness and to renew efforts in that direction during the Cultural Revolution (Kwong, 1979, pp. 45-46).

During the Cultural Revolution, Chinese education experienced dramatic changes in structure, organization, and curriculum. These changes had an obvious influence on the relationship between students and teachers and between intellectuals and working classes. The mass-line democratic participation in education was so much highlighted that school management and curriculum development, as Hayhoe (1989) depicted, "depended more on the creative involvement of the masses than the input of experts" (p. 23). "Three-in-one" committees made up of teachers, students, and worker-peasant-soldier (WPS) representatives took over school management from elementary to higher institutions. The WPS representatives on school administrative committees were to ensure strong links between academic and real life knowledge in order to serve the local needs (Hayhoe, 1989; also see Lofstedt, 1980). Textbooks were criticized and changed; the content and format of the subject matter were oriented to the socialist ideologies, productive work, and the working class. Confucian educational ideas were taken as feudalism and fiercely criticized. In higher education, enrollment stopped from 1966 to 1970, and intellectuals were assigned to work in factories and countryside to get close to the working class. The restored university enrollments employed non-academic criteria for admission—only political and ideological correctness and working class origins of the WPS applicants were considered for admission (Lofstedt, 1980, p. 132).

Education quality during the Cultural Revolution was also problematic. WPS students were selected for higher education regardless of their academic background and abilities, many of whom were said to have been activists in the political campaigns, such as the campaign to criticize Confucius (Lofstedt, 1980, p. 137). In an investigation of English teaching in China, Cowan (1979) noticed that most WPS graduates entered the English teaching profession between 1973 and 1977 "when there were virtually no requirements for admission to or for graduation from tertiary institutions" (p. 475), and they had received only minimal
training in English and other subjects, and were low in their general educational standards and limited in their English proficiency (Oatey, 1990, p. 204).

Hayhoe (1989) depicted the Cultural Revolution as an educational upheaval. Pepper (1990) came to a similar conclusion after studying the Cultural Revolution:

Those procedures could be summarized as decentralization within the education bureaucracy; deprofessionalization, with the inclusion of outsiders on school leadership committees; and the strengthening of local Party control over education. Such administrative changes did, in fact, break the authority of the professionals over education (p. 70). (italicization as original)

In terms of higher education, the radical behaviors during the Cultural Revolution virtually impeded the academic level and research competence of tertiary institutions, and, as a result, undermined the development of higher education.

POST-MAO EDUCATION

Educational upheaval came to an end after Mao's death in 1976. The Chinese government, under the leadership of Deng Xiaoping, declared the end of the Cultural Revolution, initiated reform and an open-door policy, and shifted the focus of work from ideological struggle to economic development. According to Spring (2001), both the government and the people realized that to make China a strong and prosperous country, the most important action was to modernize China by developing science and technology (Paine, 1992). The educational reform from Deng in the late 1970s up to today has gone deeper and further, and it has permeated all aspects of society and education in China.

SOCIAL IDEAL: SOCIALIST MODERNIZATION

In post-Mao China, the government, under the leadership of Deng and after Deng, has claimed to adhere to the socialist road under the guidance of Marxism and Maoist thoughts. The socialist road is defined as "socialist democracy, socialist legal system, four modernizations in agriculture, industry, national defense, and science and technology, turning China into a socialist country with a high level of culture and democracy" (The Preamble of the PRC
Constitution, as cited in Spring, 2001, p. 50). This road promises the Chinese people a picture of socialist modernization as the ultimate goal—material modernization and spiritual modernization.

Spiritual civilization contains high ideals and morality as well as rules of conduct. It is clearly demonstrated in the state Constitution Article 24:

The state advocates the civic virtues of love for the motherland, for people, for labor, for science and for socialism. It educates the people in patriotism, collectivism, internationalism and communism, and in dialectical and historical materialism. It combats capitalist, feudalist and other decadent ideas in politics and ideological superstructure such as education. (as cited in Spring, 1990, p. 50)

If material civilization, in terms of the four modernizations, is seen as the "hardware" of the socialist modernization, then spiritual civilization is the "software" of modernization. The mutual and balanced development of the two civilizations constitutes the ideal goal of the Chinese government.

EDUCATIONAL REFORM: GOALS AND EXPECTATIONS

With reforms unfolding across China, the initial stage of educational reform in the late 1970s was taken as a total reversal of the Cultural Revolution, or a return to the pre-Cultural Revolution. With Deng's suggestion, "the professionals regained leadership within the academic realm," and education at all levels "was re-centralized within the state education bureaucracy" (Pepper, 1990, p. 70), the national college and university entrance examination was restored in 1977, and tertiary institutions started to enroll students according to their academic backgrounds. The number of higher educational institutions expanded from 404 in 1977 to 1,016 in 1985, and the student population increased to 2,066,000 in 1987 in contrast with 625,000 in 1977 (Pepper, 1990, p. 131*, also see Hayhoe, 1989, pp. 42-43). In 1995, the number of tertiary institutions was 2,210, and the student population was 5,622,000 (State Education Commission of the People's Republic of China, 1996, p. 2). According to the latest statistics published by the Ministry of Education of the People's Republic of China, the number of higher educational institutions was 2,003, and the

Education has experienced further and deeper reforms along with rapid social and economic development in China. The government issued "The Ninth Five-year Plan for Educational Development and Long Range Development Program toward the Year 2010" (State Education Commission of the PRC, 1996), and "Action Scheme for Invigorating Education towards the 21st Century" (Ministry of Education of the PRC). Both documents make it clear that education must be geared to modernization, to the world, and to the future. "The Ninth Five-year Plan for Education" sets the basic task of education as promoting the quality of the whole nation and fostering builders and successors for the socialist course with all-round development—moral, intellectual, and physical. Schools should orient students to follow a path of integrating with workers and farmers, and to acquire a correct outlook on life and on the world. This policy is virtually a reiteration of Mao's overall education policy.

EDUCATIONAL GOALS: SOCIALIST MORALITY, EXPERT IN DISCIPLINE, AND BUILDER OF SOCIALIST MODERNIZATION

In the post-Mao China, educational development has been viewed as an important part of socialist modernization. Lin (1993) pointed out, "Since the economic reform efforts began in 1978, schools have remained a powerful agent of socialization" (p. 1). Chinese constitution Article 45 states: "Citizens have the right as well as duty to receive education" (as cited in Spring, 2001, p. 52), which mandates basic formal education in legislation and integrates human rights with social responsibilities. Compulsory education aims to raise the levels of science and education of the whole nation (Article 19, as cited in Spring, 2001, p. 52). Spring (2001) commented that seldom did Western thinkers link such ideas as "the right to education" with a duty to be educated (p. 52).

Given the changes in curricular structures, textbooks, content, and school programs in the post-Mao educational reforms, the ends of school education are to foster future generations of citizens who have lofty ideals, moral integrity, general education, and a sense of discipline (State Education Commission of the PRC, 1996, p. 29). On the one hand, schools should help students develop specialized knowledge and skill in
all fields in order to give full scope to their role in building the socialist modernization (China Constitution Article 23, cited in Spring, 2001, p. 49). On the other hand, "efforts should be made to constantly strengthen ideological and political work among students . . . covering education in the conditions of the country, in patriotism, in collectivism, in socialism, and in national unity and the solidarity of all ethnic groups" (State Education Commission of the PRC, 1996, pp. 29-30). These educational ends in socialist morality and in "specialized knowledge and skills" can be viewed as rhetoric of Mao's Red and Expert, only with a difference in emphasis: the post-Mao education policy places more emphasis on gearing intellectual development to social and economic development, while Mao concentrated more on moral transformation and ideological remolding.

THE CURRICULUM OF POST-MAO EDUCATIONAL POLICY

Formal school programs after 1978 also reflected the division of education into morality and patriotism, intellectual and science education, and physical education, with more emphasis on knowledge of science and technology. Coordinating with the educational goals and policy as mentioned above, curriculum now tries to teach the latest developments in disciplines and sets more strict and clear academic standards and objectives. The learning of a foreign language is mandated at secondary and tertiary levels. More public examinations have been set up to control academic standards.

Science and mathematics are emphasized in the postMao curriculum. New national syllabuses and textbooks were issued for the elementary and secondary schools in the late 1970s and the early 1980s. Comparing the percentage of the teaching time by different school subjects in the elementary and the secondary school curriculums from 1954 to 1981, Yat-ming (1991) found that with the exception of the Cultural Revolution, the organization of the national curriculum has changed little since 1950, but the present curriculum was "highly academic," with sciences seen as the disciplines with the highest prestige (pp. 6465). Moral education still has an important status in curriculum. Lin (1993) compared the textbooks for political study used in Mao and post-Mao curriculum. She found that the courses of political study after the Cultural Revolution were broader in scope,
including Citizenship Education, Moral Education, Social History, and Common Knowledge of Socialist Reconstruction. "These courses teach both communist beliefs and traditional Chinese values, informing students about the economic reform and changes that are taking place in China" (p. 3). Today, in higher education, political courses are still compulsory in both undergraduate and graduate programs.

DISCUSSION: HOW TO INTERPRET THE CHANGES AND CONNECTIONS IN CHINESE CURRICULUM IDEOLOGIES?

Each of the three perspectives can lead to a way of understanding and interpretation. Many studies have been conducted on the history of education in China. Some studies elaborated a specific curriculum in a specific period of history, for example, the study of foreign language education in modern China; some other studies took a broader view to examine the formation and change of the curriculum in its cultural, social, and historical context, such as the study of contemporary Chinese education by Hayhoe (1984). This paper has taken a historical perspective to look at and interpret the curriculum ideologies situated in the traditions of Chinese education.

THE HOMOGENEITY OF THE EDUCATIONAL IDEOLOGIES

From this historical perspective, curriculum ideologies in different eras of China are examined in a broader context, in which some similar qualities are elicited from such strikingly different factors as times, social systems, social ideals, and the content of education and curriculum. As this historical examination is "a reconstruction—an attempt to achieve understanding and/or impose meaning . illuminating aspects of a phenomenon" (Lincoln, 1992, p. 79), the above discussion reveals the educational homogeneity in the evolution of educational ideologies within curriculum throughout Chinese history.

The above discussion presents some distinct characteristics in educational ideologies in the eras of Confucius, Mao, and the post-Mao reformers. Since Confucius' private school over two thousand years ago, education has been taken as a vehicle toward social ideals. Although curriculum has changed to different forms throughout history from the pure humanity curriculum in Confucius' education to the all-rounded development curriculum in Mao's and post-Mao education—the
instrumental purpose of education in relation to social ideologies has never changed. Shen (2001) came to the conclusion that "the instrumentality of educational purpose is still one of the most serious issues in current Chinese education" (p. 4). The social instrumentality of education has remained the "old wine" in different curriculum "bottles" at different periods of time throughout the history of Chinese education. Such curriculum homogeneity of instrumentality constitutes a discourse that allows connected, historical, evolutionary, and relative perspectives to look at Chinese education and to interpret its today and tomorrow in relation to its yesterday. I will elaborate this viewpoint by comparing Mao's and post-Mao education with Confucius' education in the following discussion.

COMPARING MAO WITH CONFUCIUS

To both Confucius and Mao, education is an effective instrument to achieve their social ideals. Confucius advocated the Way of humanity by which the society came to a good order and people lived in harmony. His curriculum was to teach students exclusively the classics of the ancient kings and to foster scholar-officials. Scholar-officials, also called gentlemen, would not only be the elites in implementing humane governance, but they would also set the example of morality for ordinary people. Similarly, Mao took communism as the highest social goal, or the best order and harmony for human society. Thus Mao's curriculum was to teach Marxism and socialist morality, and to foster a new Man featured as Red and Expert. The socialist new Man would be the builder of a new society in which there would be no class and exploitation, and all people would live in harmony. Both Confucius' Way of humanity and Mao's "socialist road" instilled social ideals into curriculum and, in turn, into individual students. Shen (2001) pointed out, "Confucius' purpose of education focused more on social rather than individual development" (p. 4). This was also true of Mao's education.

Even though Mao criticized Confucius and initiated educational upheavals to clean up the feudalist ideological influences associated with the Confucian ideological influence on Chinese education, Mao's educational policies shared Confucius' belief in the power of curriculum to transform human morality (Kwong, 1979; Spring, 2001). Confucius believed in the neutrality of human nature at birth, and thus took education as a means to
transform morality. Mao believed in "the malleability of man's nature through education and persuasion" (Kwong, 1979, p. 42). He required that "all work in school be for the purpose of transforming the students ideologically" (as cited in Kwong, 1979, p. 50). His belief in morality transformation through education bears a strong resemblance to Confucius' educational ideologies.

Given that Mao's mass-line education went against Confucian elitist approach, there is comparability between them in expectations for the educational ends. Confucius expected a topdown social improvement, and he thus educated students to take office so as to lead the society. Scholar-officials were gentlemen with superior morality, the elites of the country. Mao, however, expected a bottom-up social amelioration, and "believed in the rationality of mass democracy" (Lofstedt, 1980, p. 40). Red and Expert talents out of education not only cultivated in students a high morality of socialism, but students also served all positions at all social levels with their expertise and skills. Though called socialist builders, Red and Expert talents can be viewed as elites of the socialist country in Mao's mass-line perspective.

COMPARING THE POST-MAO REFORMERS WITH MAO AND WITH CONFUCIUS

Education in the post-Mao China is the continuation of Mao's education in ideology, policy, and curriculum. This point is often neglected because of the general criticism of the Cultural Revolution and the educational reform after 1978. In her study of post-Mao education in China, Lin (1993) found, "Education after Mao can be seen, on the one hand, as a continuation of practices in force during the Cultural Revolution and, on the other, as a moderate improvement, displaying shifts in focus chiefly due to the ups and downs of economic and political reforms" (p. xii).

The post-Mao reformers have insisted on the socialist road under the doctrine and guidance of Marxism and Maoist thoughts (e.g., Lin, 1993; Lofstedt, 1980; Pinar, et al., 1995; Spring, 2001). Their socialist and communist ideology is still manifested in the latest education plan for the 21st century (Ministry of Education of the PRC, 1998). In education policy, schools still implement Mao's instruction of the all-round development of students morally, intellectually, and physically. In curriculum development, more attention has been given to the
learning of sciences, mathematics, and humanity and social science. In the courses of political and moral education, some flexibility is allowed. "The discourse is less tainted by political rhetoric; relatively neutral values and ideas rather than sharply antagonistic ones are presented in some history textbooks in describing different systems and in explaining the course of social and human development; less emphasis on class struggle in both curriculum and teaching" (Lin, 1993, p. viii).

The post-Mao education is more oriented toward modernization. Education has been taken not only as a strategy for social and economic development, but also as an indicator of socialist modernization (Spring, 2001; also see State Education Commission of the PRC, 1996). Gone are the storm-like class and ideological struggles in Mao's time. Nevertheless, the post-Mao reformers still attach full attention to the cultivation of Red and Expert students and advocate socialist values and virtues in moral and history education. As Lin (1993) noticed, the current elementary and secondary textbooks in humanity subjects concentrate on the content of the socialist spiritual civilization, such as desirable attitudes and behaviors toward communism, desirable qualities (collectivism, altruism, and bravery), the formation of human relationships in Chinese society and elsewhere in the world, the course of historical development, and China's efforts toward modernization and students' roles and duties in this drive (P. xii).

As a continuance and development of Mao's education, the post-Mao education also reflects its homogeneity with Confucian education legacy. Spring (2001) tried to consider the goal of "socialist spiritual civilization" a fusion of Confucian values with socialist development (p. 50). Actually, the post-Mao education has drawn quite liberally on the legacy of Confucian education. This can be seen in the current recognition of Confucius' contribution to Chinese education.

Although China's school curriculum today is quite different from that of Confucius both in subject matter and content, Chinese educational ideologies change little in instrumentality related to social ideals, virtues, values, and purposes. In light of the six curriculum ideologies discussed by Eisner (1992), China's curriculum ideologies, either in the past or at present, belong to progressivism in general. The ideology is
political, rooted in social reform (p. 311); it is more for the social wellbeing as a whole than for the personal pleasure of learning. In the Chinese tradition of education, the pleasure of learning is very much associated with individual fulfillment of social responsibilities; very seldom is learning for the sake of learning. Such social progressivism and pragmatic instrumentality form the homogeneity of Chinese curriculum ideologies. The homogeneity of Chinese curriculum ideologies provides us with a historical and evolutionary perspective on Chinese education and educational change. Spring (2001) said, "In Chinese civilization, morality is studied in relation to the human condition. Morality is not fixed but is derived from changing social needs. Therefore, constant study is required to determine the moral standards that will best contribute to a well-ordered society" (p. 50). Such homogeneity is best informed through looking at the importance of moral education in curriculums from Confucius' time to today.

**IMPLICATIONS**

Lincoln (1992) suggested the reconstructionist function of historic perspectives in curriculum studies. In her opinion, reconstructions were revisions, thus the reconstructions of history were revisionist history. "The purpose of this history, therefore, is merely to set a stage for the discussion of newer and emergent traditions" (p. 79). The homogeneity of social instrumentality and progressivism can be viewed as a reconstruction or a revision of the development of curriculum ideology in the history of Chinese education. Such an educational feature viewed from the historic revisionist perspective not only better explains the current Chinese education policy, but also sets the stage for the study of the ongoing educational reform and curriculum development in China.

The progressive and instrumental functions of education will continue to be valued in Chinese curriculum ideologies. According to the Chinese educational tradition that education is for the well being of society, Chinese curriculum development will still be centred on building the nation with socialist modernization in general and fostering students to be socialist citizens with knowledge of science and technology in particular. This indicates that the centralized educational system and the centralized curriculum policy will continue to be the hallmark of Chinese educational reform at least for some time into the future.
In other words, decentralization may have little chance of influencing the government curriculum policy in China. Although decentralization may take various forms and could prevail in certain aspects of Chinese curriculum development, for example, more schools in China seem to be gaining momentum in curriculum development tailored to their needs, such curriculum development is but a local application and adjustment of the government curriculum and education policy. It can hardly remove the fundamental purpose of Chinese education, that is, education serves the socialist modernization in China.

The homogeneity of Chinese curriculum ideologies also indicates the Chinese attitudes towards moral education. As a cornerstone of Chinese education, social instrumentality and progressivism will still make the educational goal of building civic morality an important part of socialist modernization, whether in the language of following the Way of humanity or of following "the socialist road" (Spring, 2001, p. 50). Thus moral education will still occupy a major portion of the school curriculum to ensure that coming generations will be Red and Expert talents for the building of the socialist modernization.

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GLOBALIZATION AND HIGHER EDUCATION IN DEVELOPING STATES
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OPENING VIGNETTE
Not long ago classroom space was scarce on the Caribbean island of Dominica. In many schools, where there were classrooms, they were so poorly equipped that classes were often held under large trees, with the mango tree and the almond tree being the favourites. Students sat on whatever comfortable surface they found while the teacher wrote on a portable chalkboard. Deficiencies in the school plant were not the only problem. Classes were often overcrowded. I remember being in an elementary school where 30 pupils shared a few heavily used wooden benches, which invariably caused much discomfort. The teacher was helpful but prone to outbursts. We thought that she did not like us. I have recently learned that management of the school system was "non-existent." This left many schools either unsupervised or under-supervised, and decision-making was greatly impeded.

In 1995, these difficulties were supposed to be addressed and gradually rectified. The Ministry of Education (MOE) committed itself to UNESCO's campaign of "Education for all by 2015" (UNESCO, 1990), and Dominica instituted its Basic Education Reform Project (BERP) as the main mechanism for achieving the objectives of the UNESCO campaign. BERP's objectives were, among others: to upgrade or construct adequate facilities of learning; to improve equity in education; and to provide teacher training. Everyone was excited. One problem remained: finances. Therefore, the government turned to the World Bank, the Canadian International Development Agency (CIDA), and the Caribbean Development Bank (CDB) and received funding, approximately US$ 10 to 15 million for its five-year BERP plan.

Five years later, the MOE had built more schools. The management structure grew horizontally as professionals who had been sent to the US, UK, and Canada returned as specialists. Programs at the Teachers' College were reviewed and improved with input from an array of foreign and local consultants and, it
seemed, that Dominica's education system had taken off to success!

Today, the number of secondary schools has grown to 15, from a previous 12 in 2000, two of which are new structures that have been designed to accommodate from 600 to 700 students. However, the older plants appear to be falling apart and the MOE does not have funds to repair them or to construct new ones. Consequently, in some schools, the occasional pebble or chunk of concrete plaster falls off during classes.

Furthermore, since the MOE decided to institute Universal Secondary Education (USE), the classrooms that had seemed structurally sound are now either sparsely furnished or overcrowded. Alas, classes have returned to the mango trees! In 2002, to counter overcrowding and to facilitate newcomers, the MOE instituted a policy that 90% of all students at any form/grade level must be promoted. Consequently, either teachers work strenuously with classes that include students with a wide range of abilities or they respond to teacher recruitment campaigns from the United States and flee the island. The quality of education, especially at the secondary school level, appears to have dropped. Amidst all this, the structure of the MOE remains as rigid and unresponsive as 25 years ago. Decision-making is slow and often seems irrational, myopic, and injudicious.

INTRODUCTION

The vignette which opens this paper is not fictional. It illustrates some of the challenges that educators in Dominica face. Recently, these challenges have been exacerbated by further cuts in public spending. Under the exhortations of the International Monetary Fund and the World Bank, the government has been reducing annual allocations to the MOE. Schools must now rely on the sale of snacks to get them through the school year. Inevitably, this blend of local and international forces conspires against all noble aims of providing "quality education for all by 2015."

However, economic stagnation and cutbacks in education spending are not unique to Dominica. Indeed, based on information from the Organization for Economic Cooperation and Development (OECD), many countries in the Caribbean, Latin America, and Sub-Saharan Africa face this crisis. Consequently,
states in these regions are forced to deal with an enigma: providing quality education in an era of liberalized market reforms and domination by supranational sub-groupings.

Of particular interest to some researchers and educators is the situation of higher education in developing countries. The economic, historical, and social contexts of developing countries often create particular challenges to human development. Consequently, their education systems are weakened and their populations remain partially literate. In justification of studies devoted to developing countries, Lemaitre (2002) writes:

Globalization is not the same in the developing world and in the developed countries. We talk about massification of enrolment but we seldom enroll more than 25% of the 18—25 cohort. We know about technological development, and the impact of information technologies, the pervasiveness of the Internet and the possibilities that open up with distance or on-line education, but many of our students do not own computers or have full access to the Internet. We know that knowledge is power and that investment in the production of knowledge may be more worthwhile than in other areas but competition is fierce, and to enter it demands a level of previous knowledge and skills most of our countries lack. (p. 36)

This paper analyzes prevailing views on the status of globalization in higher education in developing countries. The first part of the paper presents the theoretical framework. It is a synthesis and an analysis of the main themes that have been discussed in the literature on the topic, namely, a definition of globalization and a brief discussion on the effects of globalization on higher learning in developing states. The second part of the paper offers a discussion on the wider implications of globalization for higher education in developing states. Finally, I briefly discuss areas for further research on the topic.

FRAMEWORK FOR DEBATE ON GLOBALIZATION

While the debate on globalization has been highlighted in the last few decades, it would seem that the foundations and characteristics of this phenomenon have their roots in the early twentieth century. During that period, the world experienced a new thrust towards self-regularization and collaboration. This
movement was manifested in the growth of intergovernmental and non-governmental organizations.

It is unclear what led to this desire to coalesce forces. However, socio-economic conditions in post-war periods may have stimulated an interest in greater collaboration and self-organization to achieve common objectives. It is possible that the Cold War era may have contributed to developing the foundations of what we call globalization. During that era, the two giant blocs, West and East, sought to leave their mark in every corner of the globe. This meant that there had to be greater spatial organization of the various satellite states in the different blocs. Regionalization was, then, an important feature of the Cold War as various zones around the world were reorganized to facilitate the ideological, political, economic, and cultural expansion of the Soviet and Western empires. It seems, therefore, a logical conclusion that globalization, the universal propagation of innovations and cultures, has its roots in the twentieth century.

What makes globalization a topic of immense debate is the realization that the transformations associated with this process engender a plethora of challenges that need to be addressed urgently.

DEFINITION AND DESCRIPTION

In attempting to define and describe globalization, one is reminded of the lines of a song by the Carpenters "There is a kind of hush, all over the world...!" The context is different but there is symbolic parallelism in the words of the song and the phenomenon that we call globalization. Throughout the world, the buzzwords seem to be globalization, privatization, human capital, efficiency, and quality, among others. Some of these terms have themselves become part of the lexicon employed by many international organizations, such as the Organization for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), the World Bank, and UNESCO.

Generally, there seem to be three main trends in the discourse on a definition of globalization. Some see it as a largely economic phenomenon, while others focus mainly on the cultural aspects of globalization. Another group focuses on the political aspects of the phenomenon. It is also possible to have a fourth angle from which to study globalization. It could be seen as an ideological process that seeks to replace existing ideologies by
market liberalism, deregulation, devolution, and privatization. In the interest of space, I shall limit myself here to the views of just a few of the commentators on the first three dimensions of the debate. The ideological process can be seen as inherently part of the cultural dimension because it refers to a transformation in a way of thinking and, beyond that, to a way of doing things.

Porter and Vidovich (2000) offer three views on globalization. On the economic front, globalization "refers to the international integration of economics and systems of communication. It involves the increasingly global nature of markets, capital, and labour, and of the production and distribution of goods and services" (p. 450). They add:

Cultural globalization refers to the perceived increase in cultural connections. It involves the paradoxical phenomenon that everyone's traditional values and beliefs seem to be, on the one hand, under threat from many different perspectives, and on the other hand, increasingly pushed toward similarity and homogeneity. (p. 450)

To articulate their position on political globalization, Porter and Vidovich (2000) cite the recent break up of Yugoslavia and the USSR, and the growth of the European Union and APEC, that is, the Asian Pacific Economic Community. They write "Centrifugal forces involve the breaking up of large political conglomerates into smaller components, while centripetal forces operate on disparate political units, bringing them together" (p. 452).

Priestley (2002) also seems to assume the political slant in describing globalization, focusing on both the economic aspects of globalization and on a more comprehensive view of globalization. In his perspective:

Globalization is thus defined as a dialectical process whereby local reactions to the phenomenon can also dictate policy directions it is possible to discern two broad and apparently contradictory aspects to globalization. Globalization is widely claimed to have weakened the sovereignty of nation-states and the state, as an entity, has helped drive the process of globalization. (p. 127)

Other commentators and researchers choose to focus on a more economic or cultural perspective in attempting to define or
describe globalization. Layne (1999) notes, "that when many people use the term they are referring to some kind of economic phenomenon and specifically to the increasing integration of national economies into expanding international markets" (p. 2). However, he cautions that:

Globalization implies much more than the flow of money and commodities across the globe . . . Globalization refers first and foremost to the growing interdependence of the world's people. It is a process of integration involving not only the economy but also culture, technology and governance. (p. 2)

In her address on "Quality as Politics," the Secretary General of Chile's National Commission for Programme accreditations, Lemaitre (2002), noted a range of features that describe globalization:

Whether it is a phenomenon or a new dimension of colonialism there are some common features that we might all agree on. First the expansion and intensification of the international trade and investment . . . Second is the organization of transnational governmental and regulatory institutions . the third dimension is the cultural one, linked often, but not always, to the spread of Western ideas and cultural practices. (p. 30)

Some have been more colourful in their definitions. Tabb (2001) of New York's Queens College sees globalization as "a policy decision to abandon the needs of the poor and leave them fight for themselves. It is the same logic that forces the poorest countries of the world into the IMF's structural adjustment programmes, with their drastic cuts in public services" (p. 2).

Brine (2001) joins the discourse with a perspective that echoes Tabb's position. Although she recognizes the economic aspects of the phenomenon, she chooses to focus on the cultural aspect. "The particular feature that I wish to highlight at this point is that of cultural globalization. Education is itself a crucial aspect of cultural imperialism it is a major component of neocolonialism and imperialism" (p. 121).

Carnoy (1999) affirms, "Globalization redefines culture because it stretches boundaries of time and space and individual's relationship to them. It reduces the legitimacy of national political institutions to define modernity" (p. 76). In addition, Zembylas (2002) focuses on how the processes of globalization permeate the
nature and scope of curriculum in Cyprus, "Tensions between local and global influences create serious challenges in the efforts of developing countries to create postcolonial science curricula that are not dependent on global ramifications" (p. 501). Layne (1999) lends some support to this position by referring to "media globalization." He identifies the growth and expansion of technological communication such as television and the Internet as part of this media globalization (p. 3). In addition, Waghid (2001) describes media globalization as a component of cultural globalization. He argues that the media readily facilitate the dissemination of ideas and culture throughout the world.

Although all of the writers cited here have varying levels of support or tolerance for or antipathy or hostility towards globalization, they share a basic view: that globalization is a process that transcends borders and is far-reaching, even pervasive. They may not all adopt the language of Brine (2001) and Tabb (2001), but they all appear to recognize the multiple dimensions of globalization. This appreciation is important because these facets are all interrelated. In any attempt to define globalization, it is important to consider the political, economic, social, and cultural dimensions of globalization as a process. Whatever resources have been made available, because of political and economic policy choices, will have to be used socially—in education, for example. Consequently, any definition of globalization must aim to fuse all four elements as interrelated pieces of the whole. Globalization, then, could be described as a process of global political, economic, and social transformation.

In this simplified definition, a key word is "transformation." Although the literature on the topic does not always explicitly use that term in reference to globalization, it is a process that involves changes in our modus operandi. Some of these changes are radical, while others are more superficial. The issue is not necessarily whether globalization is by nature imperialistic or oppressive but how these changes in education manifest themselves throughout the world and how we manage them.

GLOBALIZATION AND HIGHER EDUCATION

The impacts of the forces of globalization on institutions of higher learning can be considered diverse, universal, and real.
However, as Lemaitre (2002) puts it, "Globalization is not the same in the developing world and in developed countries" (p. 36). Some perceive these consequences to be a "reaction" to globalization and others consider them a "response" to globalization. Nevertheless, experts on the topic seem to agree that globalization engenders an increased demand for higher education, decentralization and divestment of the state, privatization of institutions of higher learning, and realignment in the focus of management at such institutions, as well as a perceived bias in the areas of funding at universities and other establishments of higher education.

GREATER NUMBERS

Some see increases in numbers as one of the most noticeable consequences of globalization for education. However, not many of the authors whose work was reviewed for this paper have cited this as a major issue. Yet it should be a significant component of the discourse on globalization and education because an increase in numbers at institutions of higher learning means a greater number of voices for services. Lemaitre (2002) has been the most vocal on this feature of globalization:

The most important phenomenon in this respect, and the one that has had a stronger impact on universities and their nature, has been the increase of demand for higher education and the realization that universities should be open to an ever growing and an increasingly diverse group of students. (p. 31)

She uses data from a report prepared by the World Bank's Special Group on Higher Education and Society, with special focus on Latin American and Caribbean countries. The report confirms "Higher education is indisputably the new frontier of education development in a growing number of countries" (World Bank, 2000, as quoted in Lemaitre, p. 31). The report goes on to list figures for enrollment in developing countries from 1975 to 1995. It does not explain the increase in demand for higher education. Nevertheless, analysis of this data indicates that as transnational corporations trek across the globe, they demand specialized skills. Consequently, populations worldwide respond to this demand.

While this increased demand is worldwide, it is linked to major imbalances "both among countries (enrolment in industrial
countries is five to six times that of developing countries) and within countries (where the higher income, male, urban population is definitely over-represented)” (Lemaitre, 2002, p. 31). Two major points are highlighted here: (a) more males than females enroll for higher-level education in developing countries, and (b) education is still inaccessible to many persons in Latin America and the Caribbean.

The first observation is significant because while more males than females enroll in colleges and universities, some educators have observed a higher drop out rate among males than among females. In fact, so severe is the problem in the Caribbean that many educators there speak of the imminent extinction of the Caribbean male. It would be interesting, therefore, to investigate to what extent the data in any of the documents, including the World Bank’s and Lemaitre’s analysis, could be used in an inferential analysis of the status of males at institutions of higher learning in the developing world. In particular, perhaps one could learn what percentage of males graduates and how one explains the apparent disillusionment and disinterest of males.

DECENTRALIZATION

Here decentralization in higher education and in education, in general, refers to a shift in the power base from the government to the institutions. Some argue that globalization forces governments to review and democratize their management of educational institutions, thus empowering others in the process. Priestley (2002) writes:

The education reforms have been characterized by a tendency to divest themselves of responsibility for day-today management of schools. Thus schools have had powers of financial management devolved to them. In Britain, for instance, the 1988 Education Reform Act introduced local financial management of schools and in New Zealand the post-Picot (Picot, 1988) reforms laid out in Tomorrow’s Schools (Department of Education, 1988) delegated similar budgetary powers to the boards of trustees of schools. (p. 124)

Holger (2002) elaborates: "Decentralization, freedom of choice and privatization have been introduced or reinforced as means (a) to save costs, (b) to improve student achievement in schools, and (c) to increase accountability" (p. 102). Some argue
that as governments in developing countries face increasing pressure from external forces to restructure and reduce public spending, the governments move away from the management of higher education and focus more on providing basic education in a decentralized fashion.

DIVESTMENT AND PRIVATIZATION

As governments decentralize, institutions seek resources elsewhere. This reality highlights the second feature of decentralization, that is, divestment and privatization. Citing previous work by Levin (1998), Priestley (2002) states:

The undoubted economic pressures wrought by globalization, and the concomitant reluctance of the new global elites to fund public systems, have led to a reduction or freezing of budgets in many cases and increased pressures to adopt neo-liberal cost-cutting measures. (p. 128)

In speaking of private university enrollment in six Latin American countries between 1960 and the 1990's, Holger (2002) seems to support this position:

The clearest example of a finance-driven reform in this period was the generally increased privatization of both secondary and tertiary level education in the region. Although the levels of privatization at these levels varies widely among countries ... the tendency in a majority of countries is to rely increasingly on private education to absorb at least some and, in many countries, most of the increased demand for higher levels of schooling. (p. 306)

He further refers to two studies of privatization of higher learning in Latin America, in Brazil and Chile during the 1980's and 1990's. The Chilean government had restricted its funding for public universities and had even closed all public teacher training colleges. Consequently, "By the early 1980's the entire expansion of higher education was private, with little subsidy from the government" (Holger, 2002, p. 307).

The data reveal a trend among universities in these countries to move towards privatization once the government divests itself of interest in the universities. It is unclear, though, to what extent divestment has actually improved the financial position of the governments.
REALIGNMENT: A NEW Focus

A seemingly natural consequence of the privatization of higher education is selective funding in program development. University restructuring and research choice become dependent upon financial backing. Waghid (2001) is articulate on this. In studying the proposal of the South African Council on Higher Education for higher education restructuring, as presented in 2000, he states: "Considering that power in a market-driven economy becomes concentrated in the hands of the megacorporation, the latter invariably emerges as the main provider of higher education funding. The result is corporate concerns shaping higher education structuring" (p. 455).

Lemaitre (2002) appears to support this argument:

Privatization is also associated with the decrease of public funding for higher education, which in turn has pushed universities into a diversification of funding sources, most of which come from the private sector. Thus, funding is closely linked to market considerations, which makes institutional decisions highly dependent on funding opportunities, usually with a short-term outlook. Consumerism is not absent either. In many universities, the number of students enrolled in a course is what finally determines whether a course is offered or not, without regard to contents. In other cases, decisions on what programmes to offer are made in terms of the demands of enrolling students. (p. 32)

In an academic environment where only programs that appeal to Big Business get funded, it is difficult to see how institutions of higher learning can maintain their role of offering a forum for healthy discourse and research. However, according to Tabb (2001), "Corporate provision of education will seem increasingly appealing as traditional schools are deprived of funds" (p. 1).

In summarizing the discussion on the privatization of higher education, Carnoy (1999) adds:

The principal argument for privatizing higher levels of education is that many countries simply will not be able to finance the expansion of secondary and higher education with public funds, given future increases in demand. Thus, for education to expand at those levels, developing nations will have to rely on families to finance
a high fraction of school costs privately. This can be done in two ways: by allowing the creation of accredited private schools and universities in much larger numbers; and by limiting the public assistance given to all schools, including public institutions, and requiring user fees to close the gap between the cost per student and public assistance per student. (p. 43)

The challenge for higher education providers in developing countries is to continue to produce the human capital that the OECD and UNESCO want in such a climate of corporate domination. Canada knows the woes of increased user fees. The Federation of Students has been vocal on the issue for at least 10 years. In some developing countries, students either continue to view higher education as a luxury and, thus, as a status symbol or they accept whatever quality of education that they may receive.

There has been some work that describes the consequences of globalization for higher education in developing countries. Much of it focuses on the consequences in curriculum, availability, and funding. Given the potential for developing the discourse, it would seem that work on globalization in education has just started. The challenge then is to highlight the areas that warrant urgent attention and work assiduously on these areas.

FURTHER IMPLICATIONS

One implication is the educator's role in the production of human capital. It can be argued that if the goals of these institutions have changed, then the management structure should change. It could be made more flexible and innovative. Moreover, the operative procedures would possibly have to be adapted to reflect a concerted effort at achieving the organizational goals. Finally, the issue of exclusion and marginalization of certain groups in society from the higher learning process has not been sufficiently discussed. It is important to study these two areas as well.

In the absence of empirical studies in these and other areas highlighted above, we are left with speculation and assumptions that may serve no purpose other than to contribute to a healthy discourse. However, "healthy discourses" have their place in the search for solutions to our difficulties in education. Therefore, we shall pursue the discourse on globalization and higher education in developing states.
I intend to address some other issues that emerge as relevant to educators on the topic of globalization and education in higher learning institutions of developing countries. They are consequences of global trends and, while they concern all people in developed as well as developing countries, they are particularly important to developing countries because of the conditions that exist in these countries. Issues such as dealing with an apparent "World Culture," the quality of higher education in developing countries, social exclusion of certain groups, and capacity related issues are all significant to developing countries as major challenges in a world of liberalization and financial conservatism.

WORLD CULTURE?

In his studies on the development of a national science curriculum for Cyprus, Zembylas (2002) emphasized the relation between globalization and the apparent promotion of a particular way of conceptualizing and analyzing that is largely a product of Western culture. He receives support from Driscoll and Clark (2003) that "cultural imperialism is not a new phenomenon, but it assumes alarming proportions today when driven by the new technologies and profit propensities of the dynamics of globalization" (p. 51). Hence, fast music, fast technologies, and fast food combine to create a "McWorld." Porter and Vidovich (2000) agree that "much of the cultural 'threat' is experienced as a push toward similarity rather than difference (for example, the extent to which we are all becoming consumers of such products as hamburgers, pizza, chow mein, foccacia" (p. 451).

In higher education, we speak of the importation of new ideas. Dale (2000) has referred to the Common World Educational Culture (CWEC) approach, which argues that the development of national education systems and curricular categories is to be explained by universal models of education, state and society rather than by distinctive national factors" (p. 428). These universal models of education are reflected in the UNESCO campaign of "Education for all by 2015." The World Bank and the OECD, among other international organizations, support this campaign. Dale presents little empirical evidence to support his claim but, as we have seen, his position is shared by Zembyglas' (2002) work in Cyprus.

The challenge, then, for educators is not necessarily to counter the cultural threat but to manage the dissemination of
foreign cultures. The innovations in technology make this both a complicated task and an exciting venture.

QUALITY

Whenever we discuss the quality of a product, we inevitably speak of its character and of the relation of that character to other benchmarks. Therefore, if UNESCO is to achieve its campaign objectives, the quality of education in developing countries must be addressed. In fact, at UNESCO’s recent General Conference, 27th September 2003, quality of higher education in developing countries was the main theme. The draft resolution, supported by a few developing countries, called for "national capacity for assuring quality and equity of higher education, using comparable criteria for national and transnational providers" (UNESCO, 2003, p. 2).

The problem with quality as it appears to be defined by UNESCO is that higher education in developing countries is assessed by standards that already exist in industrialized countries, standards that have been created in a climate of development, not underdevelopment. For example, this UNESCO draft was proposed by Norway, a developed country. It is understandable that industrialized countries would become the benchmark standards to which educators in developing countries should aspire. However, this is dangerous. Carnoy (1999) explains:

The new emphasis on measuring and comparing school outcomes across and within countries has not occurred spontaneously. Rather, it has been pushed by international organizations such as the International Educational Assessment (IEA), the American National Center of Educational Statistics (NCES), the OECD, and the World Bank. All these organizations share a globalized view of progress. (p. 64)

In addition, Lemaitre (2002) writes: "Efficiency and effectiveness are the key words in evaluating performance and these are seen within an economic framework, in which valuefor-money and accountability are essential parameters" (p. 33). Consequently, political institutions in developing states move at break-neck speed to implement what they hope will satisfy demands for improvements. It would seem that they do this without due concern for social ramifications. For example, towards the end of December 2003, a group of student teachers at
the Commonwealth of Dominica State College (DSC) complained to the media about what they perceived as the poor quality of services and instruction at the DSC. Prior to its inauguration in the Summer of 2003, the former minister of education, the current prime minister, had publicly sworn to create an institution of higher learning that would take Dominica into the next century.

We might therefore, want to measure the quality of education in the developing countries by what that has been achieved over a period of time within the context of the respective country. It is unwise to set global standards for quality that require too much from developing states too quickly. While benchmarks may be set, they must be realistic.

CAPACITY

The question of quality is closely linked to capacity. Capacity issues are larger than simply the availability of physical resources and finances in the developing world. Capacity also pertains to the availability of trained personnel to implement appropriate programs. The deficiency that developing states face is sometimes further exacerbated by organizations like the South Asia Partnership (SAP). In Africa for example, "SAP has meant increased prices for basic necessities, services for health and education, retrenchment of the formal employment force" (Driscoll & Clark, 2003, p. 49). This scarcity of capital means that governments in developing states are unable to provide adequate levels of education, at any level, for their populations. Thus Dominican students return to the mango trees!

Another aspect of the capacity imperative in developing countries is the scarcity of skilled personnel. Some international organizations recognize this and consequently they encourage and design training programs aimed at arresting this deficiency. There are Canadian, UK, New Zealand, Indian, Malaysian, Chinese, UNESCO and US initiatives. The World Bank has also been providing funds for the training of managers and other educational professionals.

The existence of these initiatives speaks volumes. Developing countries face a major challenge in the form of a capacity imperative. In speaking about the development of the Cypriot science curriculum, Zembylas (2002) seems to lament this
situation: "No provisions were made in all these years of reform for materials and resources that support teachers to make the substantial changes that such an approach entails" (p. 508). This challenge forces the state in developing countries to either hasten its withdrawal from financing institutions of higher learning or it propels it towards massive infusion of cash into higher education.

SOCIAL MARGINALIZATION

Massive spending or rapid decrease in spending, inevitably and invariably creates a class of persons who are excluded from higher education and who, consequently, form part of the unemployed, underemployed, underpaid or incarcerated groups in society. It would seem that the very measures that were supposed to help them have contributed to their marginalization and incarceration. Brine (2001) observes:

Many young people leave school with no or few qualifications, and increasing numbers are excluded from state schooling . . the great majority will, within the foreseeable future, enter another period of unemployment and then, yet again, further low-skill training. Throughout all this, their un- or under-employment is seen as their individual problem. (p. 122)

This social exclusion creates new pressures on educators and policy makers. They must seek new methods of re-inclusion to save the social and moral fabric of their societies. Hence we see the establishment of "night school" and adult education and youth skills training programs. Whether these programs achieve their main objectives is another area that will be addressed.

World Culture, the quality of higher education in developing countries, the capacity imperative, and social marginalization are a few of the globalization-induced challenges that are pertinent to educators in developing countries. Whether these countries succeed will be partly dependent on the skill and will of their political leaders and educators. After all, decisions of national development are always about politics; politics defined here as the relationship between authority and power, which results from that authority. The politics of globalization in developing states will therefore form part of the next phase in the discourse on globalization and higher education in developing countries.
CONCLUSION

So far, much of the discourse on globalization and education has focused on the negative effects of globalization. In addition, researchers in developed countries have done much of the work with data from within such countries. It is often said that globalization creates imbalances; the status of our discourses on globalization in education is a testament to this. In addition, to correct some of the imbalances that globalization creates, there must be greater focus on how developing countries cope in a climate of liberalized markets and supranational bodies, remembering that some of these bodies have an expense budget far greater than that of many developing states! The way forward in education should focus on the quantified extent of the effects of globalization, negative and positive. Educators should work at consolidating the rewards of globalization and correcting the inequalities and exclusions that the phenomenon creates.

FURTHER AREAS FOR STUDY

In their efforts, policy makers in these countries must also heed the recommendations of Henry and colleagues (Henry, Lingard, Rizvi, & Taylor, 1999) and Zembylas (2002). The latter is direct: "I think that developing countries should be more critical of policies, practices and curriculum materials that come from the First World without, of course, reinventing the wheel" (Zembylas, 2002, p. 515). The recommendation, then, is for critical analysis in the importation of foreign innovations. This analysis can serve as a starting point in the management of the forces and consequences of globalization. For example, such analysis should enable technical vocational students in French Polynesia to tailor information technology so that it is used, along with traditional methods of craft production, to produce aesthetically advanced products. This would be one way to "cope" with globalization in the developing world.

We have already seen other possible areas for research in education. However, there is room for more work. More precisely, we need investigation of the extent to which males are socially excluded because of developments in higher education, and of the institutional and perceived obstacles to their inclusion. Secondly, we could explore policy options for meshing local attitudes and technologies with global trends. Thirdly, if educators believe that transnationals truly make an impact on the quality of
higher education in developing countries, then education researchers should study the extent of that impact and how these countries could manage the impact. We must also study the status of education in smaller developing island-states. The Fiji and Caribbean islands fall into this category. Their size adds to the challenge of providing and managing higher education in today's 'global village.'

In addition, it is hoped that there would be more study into the question of capacity in and quality of higher education in developing countries and how capacity and quality affect social exclusion. The three issues are interrelated. Therefore, we must now investigate the extent of their existence as challenges to education because of globalization and, in the process, develop the means of managing them and other perceived effects of globalization on education.

It is ironic that while UNESCO urges governments to restrict class sizes to a specified number, they continue to push these governments to institute universal education programs. Yet, they do not adequately help these governments to access the material resources that they need to accommodate the influx of students. It is, thus, incumbent upon the developing states to seek feasible alternatives for funding. The cooperative might be an option, that is, the principle of coup de main or community effort which is still practised in many cultures around the world. There has to be increased collaboration among developing countries. The structures are already in place, and the Association of South-East Asian Nations (ASEAN), the Caribbean Community (CARICOM), the Caribbean Development Bank (CDB), and the African Development Bank (ADB) are among some of the organizations that continue to work in the interest of human development in developing countries. What is needed is increased cooperation. These organizations could review their modus operandi and work on joint ventures that target their locally inspired aspirations. The effort will not be easy; after all, these organizations exist in an era of liberalization and are themselves agents of globalization. However, start they must!

The failure of the developing world to act, instead of moaning and complaining, will not only mean more classes under almond trees; it could also contribute to the fragmentation of their societies, greater social exclusion, increased crime and hopelessness, and an increased chasm between the privileged and
the disadvantaged. In the end, the failures of both blocs of countries, developed and developing, might just hasten the biggest paradox of all: to achieve more of what they had set out to eradicate; misery, backwardness, and social inequality.

References