The imperatives for reform in pedagogy and curriculum are grounded in our changing society. These changes imply pedagogy built around critical thinking and a curriculum that encourages individuals to position themselves in a society that must recognize both global and local imperatives.

Our changing global society is fundamentally characterized by uncertainty, flexibility, incongruities, and increased access to information. This contrasts with past ideas of certainty and information located with experts. Previously there was an expectation of "closure" in every activity, a sense of objectivity and absoluteness. For example, curriculum models posited a ten-year cycle during which everything was invariant—including the subject content. This may have been appropriate for relatively stable societies, but it is totally inappropriate for today's "run-away" world. Societies in the past had clear demarcations between political ideologies, geographical boundaries, roles of teachers and students, and subject domains. To deal with this high differentiation there was the luxury of extended debate and trialing before new policies and models were adopted.

**Changing world order** However, in the emerging, contingent, and dynamic world, certainty is becoming non-existent. One paradox is particularly significant: that we must be fully committed, but also be aware at the same time that we may be wrong or have to change
even before we complete a task—it's about the dialectic relationship between conviction and doubt (May, 1975).

Policies have been fundamental to providing directions and assurance for individuals. In a rapidly changing society policies are driven by the immediate and the pragmatic and often become vacuous because there is no appropriate framework for uncertainty and asynchronous demands. Because policy can no longer protect individuals against risks, there is a need for individuals to develop the capacity to think critically and construct personal meaning. The withdrawal of control and regulatory systems, through increasing economic rationalizing and market forces, requires individuals to have the capacity to discriminate, evaluate, and question assumptions behind rhetoric and promotion. Simply stated, individuals need to have the capacity to think critically. While the need for this capacity has been recognized for some time, the complexities of this capacity have been not realized and consequently there has still been too little change in our pedagogy and our curriculum.

One of the significant themes emerging from societal restructuring is the fact of contradictory, yet legitimate, roles and associated values. The search for absolute finite outcomes is no longer possible in a world of uncertainty and flexibility. This contrasts with our previous model of understanding the world. Such contrasts present us with tensions and dilemmas (Delors, 1996; Giddens, 1998) associated with a move from a single, government driven, traditional model of policy development, to new multiple pathways that emphasize individuals and their engagement with community and industry. There is a move from singular, linear, and rigid pathways to multidimensional and asynchronous patterns of operating.

Such changes require human attributes that are different from those previously considered valuable. While there has been a shift from production of the same products and services at a cheaper price to more innovative products and services (value adding), education has been driven by proclamations such as "education for all"-implying a stereotypical, top-down, and highly prescriptive education model. This is counterproductive to becoming innovative and self-sustaining. The above stereotypical approach is particularly evident in many developing countries.
Implications for pedagogy Learner-centered models have come to dominate discourse on learning to the point where they are seen as the only model of pedagogy. However, Saljo (1987, p. 106) notes "learning does not exist as general phenomenon. To learn is to act within man-made institutions and to adapt to particular definitions of learning that are valid in the educational environment in which one finds oneself. ...[Learners] define learning according to different socially and culturally established conventions with respect to what counts as learning." Despite Saljo's caution, we appear to have adopted an absolute model of learning rather than choice in pedagogical approaches. Similar unilateral and absolute positions are evidenced in the early claims of self-directed learning as the defining attribute of adult learners.

We (see Pillay & Elliott, 2001) argue for pedagogy that encourages learners to develop the capacity within themselves to deal with conflicting situations, to consider opposing ends at the same time. Drawing on the literature of "possible selves" (Cross & Markus, 1991) we are advocating a pedagogy to develop learners as multiple voiced selves. This requires individuals to defend contrasting positions of an issue at the same time and, in so doing, recognize dilemmas, to resolve those dilemmas to the best of their abilities, and to live with that resolution until further thought provides other insights. Through such pedagogy, dilemmas are not "solved" in a finite sense or in a finite time frame, but lived with. The development of such fragmented selves as learners requires a totally new approach and investment for development.

We propose that today's pedagogy should be centered on critical thinking that extends beyond a set of skills and encourages learners to evaluate assumptions, appreciate reasons underpinning actions, be aware of standards of reasoning, and recognize emotional influences on learning. We have argued elsewhere (Pillay & Elliott, 2001) for a reconceptualization of critical thinking that involves interaction of disposition, substantive knowledge, strategies and tools. While the previous focus has been on these elements as individual entities we argue for a reinvigoration of critical thinking built on the interactions among them. As noted earlier, in a deregulated world, the ultimate location of responsibility is with the individual; thus any appropriate pedagogy has to explore ways of developing knowledge, skills and
dispositions that may assist individuals to become self-responsible.

**Implications for Curriculum** We understand curriculum to include all structured expectations of learners and the ways in which these expectations are to be realized. In a global context where uncertainty and tensions have replaced stability and surety and where we need to address both local and global issues, there is a temptation to conceive curriculum in terms of fixed knowledge and skills. However, such a direction is unproductive and counter to the very issues we face.

Curriculum needs to be considered not just in terms of subject requirements but also in terms of generic attributes that have to be developed in each citizen if the society is to survive mounting pressures to deal with these tensions. For example, our changing world is associated with a new form of individualism that is linked to issues such as global mobility, generic skill development, equity, powers of discrimination, and human rights. Each such imperative needs to be developed in learners, as they understand domain specific knowledge. This is particularly important as we move towards an information age in which market regulates quality and citizens need to discriminate between advocacy-based and research-based information.

In many societies, social changes have given rise to sophisticated systems of welfare to accommodate those who find living with contemporary dilemmas difficult or impossible. While curriculum should encourage individuals to take responsibility for the consequences of what they do and the lifestyle they pursue, support will probably be necessary for those unable to accept such responsibility. Generally, there will always be the need to develop attributes that address collective concerns in the community and to promote social values such as tolerance and equity. Despite recognizing these emerging issues, curriculum planners are confronted with the difficulties of how to promote such values in the face of time constraints and rigid curriculum frameworks.

There is a need to develop curricula that have the capacity to grow and quickly adapt to changes, and herein lies the challenge of dealing with change within set structures. Curriculum can no longer be developed on the basis of current relevance or past patterns. While
it needs to be able to project into the future, very little of this is known. Consequently, there is a need for a pedagogy through which citizens are encouraged to engage in a critical way to adopt a "multi-voice" orientation to learning and a curriculum which enables individuals to think critically about these voices. Again, the central tenant of our argument is the need for individuals to develop attributes that enable them to become critical discriminators in an ever-changing, complex world.

Conclusion We hope this essay stimulates thinking on what education means in today's world. We also hope that faculty members, researchers, planners, and policy makers are able to adopt a critical approach when reviewing various aspects of the education sector in order to better understand these practices and beliefs.

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