

WHAT'S DEVELOPMENTAL ABOUT EDUCATION?

Professional contexts and theoretical perspectives

The nine papers in this issue come from a Board of Education and Developmental Psychologists symposium at the 1990 A.P.S. Silver Jubilee annual conference. An open-ended question, '*What's developmental about education?*', stimulated a vigorous critique of how adequately developmental processes, concepts, and issues are being applied in Australian education. Passive reliance on hypothetical constructs of within-child educational deficiencies and consequent passive acceptance of quasi-scientific educational therapies were highlighted throughout these papers. More interestingly, the symposium pointed confidently to a trend towards more active instructional intervention. Psychologists are no longer prepared to countenance a view that development just happens. An Australian ethos of life and education based on a laconic 'she'll-be-right' minimalism and laissez-faire individualism serves neither the developing child nor Australian aspirations to become a wiser and more productive society.

Across a broad spectrum of professional contexts, there is concern that individual differences in development are being neglected and there are suggestions how teacher training and teacher action can attend more directly to the developmental needs of their pupils. These concerns were raised repeatedly in relation to career guidance for school children, training in early childhood education, provision for gifted children with special needs, and remedial educational programming.

Across the theoretical spectrum from cognitive, ethological, ecological, and behavioural perspectives on development, fresh analyses are being offered about development within the individual child, within the process of interaction between children and their environments, and within the learning context. Age-and-stage concepts of development in education were criticized roundly from four different perspectives with a vigorous and striking unanimity of opinion. Alternative conceptualizations variously emphasised developmentally appropriate task design in instruction, multiple modes of cognitive skill acquisition developing within individuals, the modifiability of individual development, the rise of more complex wholistic developmental challenges confronting the individual and the system of educational support, and the ready ability of behaviour change processes to restructure specific task environments.

Halford demonstrated how simplistic notions of a concrete-abstract developmental sequence have increased the effort required to learn some mathematical tasks and how educational practices in the teaching sequence for arithmetic and algebra can be improved. He discussed the role of structural representation and analogical knowledge of relationships in concept acquisition. Collis criticized a simple stage-by-stage Piagetian concept of cognitive development. In his view, developing children became able to draw on

alternative strategies of learning and problem solving. He anticipated substantial instructional opportunities flowing from this view that development is a process of adding additional styles of cognitive function rather than a process of simply shedding deficient cognitive structures in favour of one more advanced strategy. His model also has implications for the social context of instruction in that, for example, modes of learning deemed suitable for younger learners should be purposefully employed to enrich the learning environment of older children. Hayes criticized simple topological grouping of children and neglect of the concept of intra-individual plasticity in education. He, like Cummins, highlighted the uncertain fate of the child who is not 'developmentally ready' to start school. With respect to the interaction between person and context, Hayes argued that age-based developmental concepts current in education interfere with attention to the learning needs of children. Rowe criticized the simple cause-and-effect/stimulus-response search for a universal theory of development and education. In the natural classroom setting, the cognitive and social context of learning and thinking influences who thinks and learns and how thinking and learning is modified. Thus, the whole adaptive system comprising the classroom experience needs to be addressed, particularly as schools have to prepare rising generations of Australians for new kinds of adaptive demands. Leach criticized the simplistic reliance on 'typical experience' in most school learning. He observed that is inappropriate and unnecessary to blame the inadequacies of the child, the teacher, or the system for educational failure. Use of behaviour change processes, long available but commonly neglected or rejected in teacher training, can help to provide a more developmentally effective environment in classrooms.

Cupit argued that the study of child development is the key to teacher competence. He specifically criticized the drift to downgrade teachers' professional skills and knowledge in early childhood teacher preparation programmes. This prospect is particularly worrying as teacher training in early childhood traditionally has had a much higher ratio of child development studies than either primary or secondary teacher training programmes. Williams pointed out that giftedness is a developmental issue for all children, that there are many different kinds of gifts, and that schools and community need to provide a conducive, nurturing environment to meet the special needs of individual children in order to develop those different gifts. Cummins commented that the unmet special needs of individual children have been considered beyond the skills of the regular classroom teacher rather than their special province.

These papers support the need for changes in the educational system. Whatever professional context is examined and whichever theoretical perspective is

adopted, it is clear that a developmental focus point to many useful conceptual mechanisms for managing systematic efforts to achieve educational changes to the benefit of Australian schoolchildren, now and in the future, and to the benefit of Australian society.

Fiona Bryer (Guest Editor)

(Note: The paper by Hayes in this issue was prepared for this symposium but the arrival of a daughter precluded its presentation.)