Current Work of the Mathematics Key Learning Area Committee

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During 1993, important changes were made in the way that curriculum in schools is organised in Victoria. Until 1993, responsibility for curriculum was divided between different bodies. For Years P to 10, it was the responsibility of the Department of School Education (under this and previous names), whilst Years 11 and 12 had most recently been overseen by VCAB, the Victorian Curriculum and Assessment Board.

The Victorian Board of Studies was established in mid 1993 with responsibility for curriculum and assessment for all the years of schooling, P to 12. This is a reflection of the new view that the normal range of schooling should continue through to Year 12 for the vast majority of students. The Board of Studies is a body corporate established by an Act of the Parliament of Victoria. The Board has established eight "Key Learning Area Committees" to advise it in curriculum areas. Mathematics is one of these curriculum areas and the rest of this article will describe the work that the Mathematics Key Learning Area Committee has done and is planning to do in 1994. The other key learning areas areas follow the division of curriculum which was used by the National Statements and Profiles project of the Australian Education Committee.

The Mathematics KLAC

The Mathematics Key Learning Area Committee (KLAC) has 16 members, who are drawn from all relevant sectors: primary and secondary teachers and principals from the government. independent and catholic sectors, university mathematicians and statisticians, teacher educators and from industry. The Convener is Kaye Stacey, Professor of Mathematics Education at the University of Melbourne and the Executive Officer is Dr Max Stephens, formerly of VCAB. Although the members of the KLAC are not representatives of any organisation or sector but have been chosen for their expertise and experience, the MAV has strong input to the KLAC, principally through Andrew Hay, its current Vice President. A membership list for the current KLAC is given in Appendix 1.

To help the KLAC deal with the large amount of work that is envisaged for 1994, three specialist subcommittees are being established, drawing on KLAC members and others. The VCE Working Group, which to a large extent replaces the previous Mathematics FOSC, is chaired by Ms Sue Michell. Rob Vingerhoets chairs the Years 5 to 10 Working Group and Heather Sinclair the Prep to 4 Working Group. In setting up the KLAC and its working groups we are very fortunate to have been able to assemble such notable expertise in an enthusiastic and dedicated group, with a very wide range of experience.

The purpose of the KLAC is to "advise the Board on the guidelines and the procedures for accreditation and evaluation of courses of study and the assessment of student performance pertaining to the learning area". The first advice to the KLAC's has specified the following issues for early consideration:

* time allocations at various year levels
* courses of study and guidelines for the development of courses
* the need to develop exemplar courses

* the suitability of courses to be submitted to the Board
* guidelines for evaluation and review of courses
* use of national documents (Statement and Profile).

Since being established in October 1993, the KLAC has prepared advice to the Board on the National Statements and Profiles and the Key Competencies (see below) and recommended arrangements for 1994 and beyond for the new format of the challenging problem CAT for Specialist Mathematics and the inclusion of short answer questions in the Facts and Skills CATs. Teachers of Year 12 Mathematics will, by now, be well aware of these new arrangements. The VCE Working Group, which takes over the role of the previous FOSC, consists of Year 12 teachers, University staff and, in contrast to the FOSC, the chairpersons of the setting panels for the CATs. Monitoring the progress of the new study design and the new arrangements for CATS will be one of the tasks of the VCE Working Group during 1994. We see that very substantial positive gains have resulted from the introduction of the major features of VCE mathematics so we now hope that it is entering a period of consolidation, when only a little finetuning will need to be carried out.

The National Agenda

At several times during 1993, the "national agenda" for education hit the media headlines, along with the associated issues of state rights, national testing and the relationship between education and training for the workplace. In July, two sets of documents were presented for adoption to the Australian Education Council, the meeting of all state and Commonwealth Ministers of Education. Both were deferred for further consideration until the December meeting in Hobart. Publicity over the perceived inadequacies of the Mathematics Profile documents was an important factor in the deferment. The two sets of documents were the Key Competencies, arising from the work of the Mayer Committee and the National Statements and Profiles for the eight key learning areas. In consequence, a major task of the Mathematics KLAC in 1993 was to present the Board with advice on the use of these documents for Mathematics. Our response was informed by the many written responses we received from the mathematics education community. The Board of Studies then in turn advised the Victorian Minister of Education before the Hobart meeting.

In regard to the Key Competencies, we advised the Board that a well-rounded mathematics curriculum makes a contribution to the development in students of all of the key competencies. Mathematics was seen to play a unique role in the development of five of the key competencies. Hence, the KLAC agreed that the Mayer Key Competencies were important goals of education and that Mathematics has a particular role to play in developing these. However, the KLAC recommended against any separate form of assessment of the Key Competencies.

The KLAC advised the Board that *A National Statement on Mathematics for Australian Schools*, which was published in December 1990 and thus pre-dates many of the other statements, provided a useful basis for the preparation of detailed course advice by the state. As an example, the new primary course advice, developed by the Department of School Education, draws heavily on the *National Statement*.

On the other hand, the Profiles were judged not to be ready for use in Victorian schools and in need of substantial modification. Prior to any use, the mathematical errors must be corrected, a few important gaps (mainly in number and algebra) need to be filled and the language needs to be simplified and the format improved. However, the two most critical areas of concern with the Profile were the

significant increase in workload for teachers (if the Profile remains in its current form) and the proposed use. Whilst the Profile was seen to provide a useful basis for reporting to parents, it would not provide a reliable basis for any form of system-wide reporting. We strongly recommended that any revision of the Profile must also be informed by a clear statement of the intended use in Victorian schools.

The outcome of the Hobart meeting was that the Statements and Profiles have been returned to the states for separate development, with an agreement that this be monitored and the issue of collaboration between the states be re-opened in some years. In Victoria this separate development will take place through the Standards Framework.

A Standards Framework

The principal task of the Maths KLAC for 1994 revolves around the development of a standards framework. The parameters under which we have to conduct this work should become clearer in the early months of 1994. A standards framework is intended to address the whole teaching cycle: instruction and learning, assessment and reporting in turn informing future curriculum planning. Although its exact nature is not yet clear, there are some features that are definite. The Standards Framework will draw upon current documents (e.g the Primary Course Advice), but some new documents will be needed. Transition from Grade 6 to Year 7 and from Year 10 to Year 11 will be an issue which the new KLAC is in a good position to address. The Standards Framework will aim to link course advice with procedures for assessment, recording and reporting that are simple for teachers to use. The Maths KLAC is concerned that teachers' time is not wasted in bureaucratic procedures, but is directed clearly towards enhancing children's learning.

Overview

The members of the KLAC are aware that many schools will be operating in a difficult and uncertain circumstances during 1994. We are also aware that in the current political climate, calls for accountability are likely to place a far stronger emphasis on assessment and testing of students, challenging long standing practices and philosophies and creating new demands on teachers. The introduction of National Curriculum in England and New Zealand are recent initiatives which we are watching closely. In its work, the KLAC will do its best to ensure that whatever scheme for assessment or reporting is to be used in Victoria, it will be in a form that is manageable in a classroom and provides useable information to improve outcomes for students.

An Invitation

Successful operation of the Maths KLAC depends on its members understanding all aspects of how mathematics is being taught, learnt and used in Victoria. Members of the KLAC work in a wide range of environments, but we nevertheless value any additional input you may wish to make. If there is an issue that concerns you, please feel free to contact me (Kaye), the Executive Officer (Max Stephens) or a KLAC member who works near you.

Appendix 1:

Membership of the Maths KLAC - December 1993

Convener

Professor Kaye Stacey University of Melbourne
Address: Department of Science and Mathematics Education, University of Melbourne, Parkville 3052. (Tel. 344 8443 Fax. 344 8739)

Deputy Convener

Mr Rob Vingerhoets Ivanhoe Grammar School

Members

Frank	Barrington	University of Melbourne (Maths)
Niels	Becker	La Trobe University (Statistics)
Neil	Cameron	Monash University (Maths)
Doug	Clarke	Australian Catholic University (Ed)
Margaret	Clayton	Mullauna SC
Ann	Gervasoni	Mary Immaculate PS, Ivanhoe
Roy	Gibbs	Kyneton PS
Andrew	Hay	Whitefriars College, MAV
Sue	Michell	Methodist Ladies' College
Sue	Potts	Ericsson Australia
Irene	Sawczak	Penleigh and Essendon Grammar
Nick	Scott	DSE, Rialto
Heather	Sinclair	Belaire PS
Les	Evans	Catholic College, Bendigo

Executive Officer

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