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Kapitel: 5. Call for reactions

UNIVERSITY

In some countries the difference between universities and other tertiary institutions is the fact that research takes place in universities. In such countries, universities have a research culture in which it is assumed that most lecturers will engage in research. To what extent should the teaching of mathematics be delivered by lecturers who are engaged in some form of research ?

In some countries, university degrees are of a general nature and cover a range of topics. In other countries, there are more directed programmes for students to follow. What is more, some of the more applicable areas of mathematics may be taught outside a mathematics department by engineers, statisticians, physicists, etc. To what extent should courses be general and to what extent should they be specific to each user group ? To what extent should courses be taught by mathematicians and to what extent should they be taught by experts from other appropriate fields ?

What then is the role of a department of mathematics at the end of the twentieth century, given that there is a tendency for non-mathematics departments to teach their own mathematics ? (This is not only for bureaucratic reasons but also because these departments are often dissatisfied with the gap between the content and approach they require and the content and approach of mathematics departments.) Should departments of mathematics be responsible for *all* of the students taking mathematics at its university or should it concentrate on its traditional clientele, the mathematics majors ? Will departments which do not teach a range of students remain viable in an environment where a balanced budget, rather than education, is the main concern of administrators ? What cooperation can there be with other disciplines for whom mathematics is a service course ? In some cases there is an overlap in the material being taught in courses by a mathematics department and a service department. Are there good reasons for continuing this practice ?

Clearly no university department can teach all branches of mathematics. Are there fundamental branches of the subject which should be in all programmes ? How should the balance be struck between suitable major components ?

How strongly are incoming students influenced by career prospects in mathematics ? How should this affect the courses offered and the advice given to prospective students ?

5. CALL FOR REACTIONS

The work of this Study will take place in two parts. The first consists of a conference which is to be held in Singapore from December 8 to 12, 1998. *English will be the language of the conference.* The conference will be a working one, where every participant will be expected to be active. Current planning is for a limited attendance of about 75 persons.

Given the style of the conference, we anticipate a variety of types of contributions that will be presented in plenary sessions, working groups, panels and short presentations. Presentations may include position papers, discussion papers, surveys of relevant areas, reports of projects, or research papers of an educational nature.

We invite contributors to make a submission for consideration by the International Programme Committee no later than 1 May 1998. Submissions should be up to three pages in length and may be e-mailed, faxed or sent as hard copy. They should be related to the problems and issues identified in this document but need not be limited to

these alone. One might also draw to the attention of the Committee the names of other people whom one feels ought to be invited, stating the type of the contribution they might make. We would appreciate knowing the nature and results of related studies in this area.

Participation in the conference is by invitation only. Invitations to those whose submissions have been accepted will be made in July 1998. At the same time invitees will be asked to produce a longer version of their submission for publication in the pre-conference proceedings. The Study organisers are seeking funds to provide partial support to enable participants from non-affluent countries to attend the conference but it is unlikely that full support will be available for any one individual.

All contributions and suggestions concerning the content of the study and the conference programme should be sent to

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The second part of the Study is a publication which will appear in the *ICMI Study Series*. This publication will be based both on the contributions requested above and the outcomes of the conference working group and panel deliberations. The exact format of the publication has not yet been decided but it is expected to be an edited, coherent book which it is hoped will be a standard reference in this field for some time.

The planned timetable for the Study is as follows:

1 MAY 1998:
Deadline for worldwide reaction to this Discussion Document.

1 JULY 1998:
The Study conference programme and the list of invitees to be finalised.

8–12 DECEMBER 1998:
Study conference, Singapore.

1 MARCH 1999:
Deadline for the submission of papers to the study publication.

31 JULY–7 AUGUST 2000*:
Presentation of main considerations and findings, ICME–9, Makuhari, Japan.

1999–2001:
The editors produce the study volume.

(* Actual dates to be confirmed.)

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