

cultural Research Council suggested that a period spent in practice would probably be helpful, but that the transfer to further research training should be made easy. There seemed to be general agreement that the first two or three years of the undergraduate course should provide a broad scientific training, and possibly be taken in conjunction with other medical and dental students, while the next two or three years should provide the necessary vocational training. Sandwich courses were suggested, by Dr J. T. Done from the Ministry of Agriculture, as a means for giving the students a feel for veterinary practice.

#### INDEPENDENT UNIVERSITY

### £15 Million to Launch

by our Education Correspondent

To launch a self-financing university that is free from state control is a difficult business. That, if nothing else, is the first conclusion to have been drawn by the planning board of the proposed Independent University. Not only are supporters of the university laid open to the criticism that it will be merely an extension of the public school with industrial control in the place of state control, but they are now faced with the fact that the estimated cost of launching the university has trebled in just over a year. A policy document put out by the planning board suggests that £15 million will be needed to get the university off the ground. In January 1969, when the idea was first mooted, it was thought that £5 million would do the job.

The supporters of the university are not despondent, however. They believe that £15 million "should not be beyond the pocket of a wealthy nation concerned to preserve the best in its university tradition", and they hope that this money will come from endowments, loans, guarantees and gifts in kind. Once over the first few years it is intended that the university will be self-financing. Students will have to pay economic fees ranging from about £650-£700 a year for arts students to £1,050-£1,100 for science students. These figures do not include maintenance, but the planning board can see no reason why independent university students should not qualify for grants from public funds. It also argues that a system of loans would help such students to finance themselves, and would prevent the university from having to take only children from rich families, and therefore from becoming merely an extension to public school. The cost to the student over three years would be nearly £5,000.

One criticism often levelled at the proposed Independent University is that it will find difficulty in attracting staff of sufficiently high quality. But the planning board's answer to this seems to be that the university will not be bound by UGC scales of pay, and will place great emphasis on teaching ability when selecting staff. The planning board also believes that the university should be located on the outskirts of London, and the secretary of the board, Mr MacCallum Scott, indicated that some sites are already being considered. Although a site in the provinces cannot be ruled out, the planning board suggests that proximity to London's facilities will offer great advantages.

Before the university can award degrees, it must first receive a royal charter, and there seems little

chance of this for several years. It seems, therefore, that if the university does get off the ground, it will be at least four or five years before it starts to operate, and even longer before it reaches its proposed size of 3,000 students.

#### MATHEMATICS

### Differentials in Low Gear

Too little research on differential equations is being done in Britain, according to the interim report of the panel set up by the mathematics committee of the Science Research Council to review both pure and applied work on differential equations. There is not much research activity in Britain on most aspects of ordinary differential equations, for example, and the panel finds the amount of study of non-linear partial differential equations to be "most unsatisfactory". To rectify the situation amounts virtually to the introduction of new subjects to Britain, and the panel lists three ways in which this might be achieved—by year-long symposia, by a long term programme of visitors from abroad, and by the exchange of personnel with experienced overseas groups.

Established in June 1967 under the chairmanship of Professor I. N. Sneddon of the University of Glasgow, the panel is expected to continue regular meetings for a further two or three years. The interim report includes the familiar homily about poor communications between universities and industry, which the panel feels is hampering the development of such topics as control theory, for instance. In general, what is required on the industrial side is a better formulation of industrial problems, and a readiness of university mathematicians to be more involved in the application of differential equations. How this ideal is to be achieved the panel recognizes to be a problem with no easy solution, but it suggests the trial of methods such as the joint study group between universities and industry which is being tried by the Oxford Mathematical Institute, and the publication of a comprehensive survey of techniques.

To give the subject of differential equations a boost the SRC has already begun to set aside twelve research studentships per year for graduates working in this field, and the report recommends that this experiment be continued for five years. The panel says that over the next five years or so there should be one large symposium each year on some aspect of differential equations (one has already been held at the University of Warwick) and they favour more universities increasing their interest in this field.

#### INFORMATION

### Literature Taped

from a Correspondent

THOSE biologists who count as wasted the time spent tracking references to their particular research interest through the paper jungle of literature search indices will welcome news of an experiment, currently in progress in Britain, which may presage an end to their labours. The experiment, which is financed by the Office of Scientific and Technical Information (OSTI),