

but no doubt a specialist has to make many sacrifices; and gods forbid that I should judge my brethren.

Post-finally: Am I educated? That is a question I am not called upon to answer.

Architect

(Nancy Northcroft, B.Arch.)

Before answering these questions, there are one or two assumptions which I should like to state by way of definition.

Assumption 1: That our present education system in New Zealand does not give a liberal enough education.

Assumption 2: That the person who has received a liberal education will be considered a well educated person, and, as such, of value to the community.

Assumption 3: That a well educated man, no matter what his particular work or interest, shall have made some study of History, English Literature, the Classics, and what I would call Nature Study: that is a study of the natural environment and Man's relationship to it.

Question 1: Yes, though I do not believe that the blame for the lack of a liberal education can be laid wholly at the door of the University.

Question 2: There are solutions, though we cannot expect to accomplish any of them quickly or easily. As suggestions for improving the situation I put forward the following ideas:

(a) A more liberal education during the pre-university years of a student's life. In other words, in the schools. There is too great a tendency to specialise too soon. Specialist training should never begin before the university or post-school period. It is possible that if students received a thorough and liberal education during their school years, the University need not be quite so fearful of the results of its more specialist or technical approach.

(b) A more careful selection of students who are to go on to the University. This need in no way cut across the rightly accepted ideal of giving to everyone as good an education as possible. What I feel we have failed to realise in the past is that not everyone needs or is receptive to the same type of education. The university has a very special part to play in the educational life of the community. Only those capable of fulfilling and extending this function should be in attendance at a university.

(c) Residential Colleges. The association of students, taking different courses of study, within one residential college, provides a liberal education in itself. The diversity of interests, the tolerance towards another's point of view, the clash of minds and the ability to take an intelligent part in any conversation which might develop are of inestimable value in the education process. So long as we concentrate on the "night school" university, so long shall we deny to our students this type of liberal education.

Question 3: This is not always a question of wider studies in the sense of more subjects in the curriculum. Much depends upon the emphasis given to certain subjects within the course, or to the slant given to a particular subject. In some cases extraneous subjects may have to be introduced. Much, however, might be done by tying up serious study with some of the voluntary students' organisations which exist to-day. Use might well be made of such societies as Music Clubs, Dramatic and Debating Societies and so on. Had some such use been made of these organisa-

tions, I am sure I would have had both time and energy for wider studies while at the University. As it was I, in line with many students, took part voluntarily in the activities of some of these societies.

Question 4: Because I took the course of the Degree of Bachelor of Architecture I believe that I can say that the University gave me more than a specialist's training. This would not necessarily follow for all courses of university study. The reasons for my wider training I give as follows:

(a) As a Bachelor of Architecture degree student I was forced to attend full time at the University. This was, in some measure, a substitute, though a very poor one, for the type of life to be had in a residential college. Because of my full-time attendance I had opportunities for meeting and working with other students.

(b) I voluntarily took part in some student activities outside the School of Architecture.

As a result of this I know that I have benefited both in my profession and personally. Even so I do not believe that I came to the end of my school and university life as a well educated person. There are very big gaps in my knowledge which I still find a drawback.

Question 5: Yes, very definitely. Everyone's work must at some time impinge upon another's. In these circumstances the well educated person is better equipped to deal with the situation than is the man who has had nothing but a technical training. More important, however, is the ability to see things Whole. There has been a tendency towards fragmentation and specialisation in all fields of technical knowledge over the past century. Because of this we are apt to concentrate too much on Part, till that Part becomes, seemingly, greater and more important than the Whole. This leads to a lack of balance in judgment and even to false tenets and evil practices. The person with a liberal and broad education behind him is less apt to fall into this error. He is, therefore, more reliable, efficient and of greater value to the community.

Question 6: No. My experience is, that once a person leaves University, the exigencies of establishing themselves in their work leave them little opportunity for a broader education. It can of course be done, but usually only by those of great determination and good physical health.

Man of Science

(H. J. Finlay, D.Sc., F.R.S. N.Z.)

(1. and 2.) In my day, at least, most students who took a Science or Arts degree did not become specialists for some years. During that time they had a considerable variety of subjects available, and could gain a fairly liberal preliminary education. Conditions now, however, I believe are different, but I do not know them well enough to make suggestions.

(3.) The ordinary Science course of, say, Chemistry, Physics, Mathematics, and Geology of course took most of my time and energy, but we were still able to fit in special short request courses in Zoology, Music Appreciation, etc., and attend various student societies, where the considerable discussion presumably added to one's liberal education. How much one simply absorbs facts at University, and how much one is mentally equipped then to think those facts over

in proportion and make wise deductions is a large question; probably little of the latter is done till later in life.

(4.) Although I mostly had to equip myself as a specialist, all of the courses taken helped to that end, and have provided or influenced many interests that have little to do with my actual specialism. All these interests I have found helpful professionally as well as satisfying.

(5.) Yes. The liberally educated specialist is likely to have a more resilient and tolerant mind, more quickly adaptable to sudden emergencies.

(6.) It is taken for granted that the education of a scientist—especially a research scientist—is a continuous process. It has always been my feeling that a university is merely a starting point for stimulation of the mind, and that any depth, broadness, or liberalness of knowledge comes mostly after one's university life is over.

It seems to me more important to live vividly and interestingly the one life we have than to be a technical specialist; and the ability to do this may depend more on one's mental reaction to whatever education one got, rather than on the availability of the most liberal education possible.

Medical Research Worker

(Muriel Bell, M.D.)

Yes, I agree in general that a specialist should know more than his mere speciality. For example, no scientist can impart what he knows if he is unable to express himself lucidly in his own language; he will be imperfectly understood either by his students, or by those who read his published work. Again, the biologist who knows all about the marriage of insects but is puerile in his knowledge of the fundamentals of the psychology and physiology of human marriage is not going to confer happiness on his own home unit.

But I regard it as unfair to lay all blame for these shortcomings entirely on the University. It is desirable that good foundations should already have been laid in the pre-university stage. Then, too, it is absurd to think that only through university classes can a liberal education be obtained. At best, a university course is a mere introduction to learning. It introduces us to the method of continuing to learn from books or journals; it teaches us to discriminate between the true and the false of that which is written. But even if we claim to have been students for the whole

of our lives, there will always be the feeling that we know so little of the total sum of knowledge, even in our own special subject.

Those with a literary turn of mind may be appalled at the defects that may exist in a scientist's knowledge of the realms of literature, but it is also open to the scientist to be appalled at the mediaeval ideas that many "cultured" people have regarding their own bodies.

There are limits to what can be rammed into the brain of a student in a few short years. After all, he should be left with a brain that he can subsequently use, rather than that there should be justification for accusing the university of being a place where they pith your brain.

If university courses are prolonged, it generally means that marriage is postponed, and hence the relationship between intellectuality and infertility; for early marriage is more likely to be attended by fertility, as well as by a natural attitude to the upbringing of children.

Though it often happens that a liberally educated specialist is more efficient than is one who has been educated in only a technical sense, it is more to be ascribed to the initial difference in the liberally educated man's capabilities. And I hold that it is more important that the less well-endowed specialist should put his specialty first, particularly if it is concerned with a subject that holds for others the difference between life and death. Better that the obstetrician should know all about managing a labour than that he should be able to quote Virgil while mismanaging it.

Yes, I know many who have educated themselves in these broader ways since they left the University. I also know a few who have educated themselves in a broad way without going to the University.

Engineer

(A. Buckingham, B.E.)

1. I cannot agree with the Chancellor, much as I sympathise with his argument. I do not think the general public would at this stage accept such a drastic change in university education, and do not think the university should be saddled with such a big responsibility. (First of all we might well resolve the problems resulting from the introduction of the "Core Course" into the post-primary schools.) Aspirants to the technical professions (and others too) should certainly receive the broadest possible liberal education before entering the university.

3. No. By the time the university is reached the race is on, and with the tendency to lengthen all specialist courses to six years the economic factor precludes further extension of studies. But the university influence remains and will induce all but the severely technical to broaden their studies in later years.

4. Certainly it has been beneficial—not so much in a narrow professional sense as in broader administrative duties, i.e., in dealings with persons rather than with things.

5. Not more efficient in the special field of his training, but much more so outside that narrowing field.

6. Yes. Many professional engineers from personal inclination, knowing the value of a liberal education, have broadened their studies after leaving the university. Most graduates are then still in their early twenties and their zest for knowledge is far from satisfied.