Selecting students for optometry Part 1: Some trends and the problem of the

mature applicant

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The introduction of degree courses in ophthalmic optics in the mid-1960s led to a radical change in recruitment to the profession. For many years optometry courses had been held under the auspices of institutions which were later to become universities, but the awarding of BScs in ophthalmic optics meant that a far larger group of people would now consider it as a possible career. Rightly or wrongly, many sixth-formers regard university as the next step on the educational ladder and having made that decision then look around to see what subject they might study. Thus, if ophthalmic optics had not become a university-degree subject, many of the most-able new recruits to the profession might well have entered other spheres. To appreciate the recent past and the future of optometric education it is necessary to look at the whole context of university education in this country

In order to be considered for a university place, today's students must first apply through the Universities Central Council for Admissions (UCCA)¹. The Council was set up in 1961 and at first did not cater for all university applicants. Today, almost all potential undergraduates use this channel with the exception of those only applying to Scottish universities, the Open University and University College at Buckingham. From 1967, UCCA has dealt with applications for just over 80 institutions, and their figures give a good picture of the number of students applying to and being accepted by English and Welsh universities from then until the present day (see lower part of Fig 1).

The population of 18-year-olds, who constitute the majority of university applicants, reached a peak in 1966 (see upper part of Fig 1). Since then it has declined and increased again. A new peak will be reached in 1983. Throughout this period of time, the number of applications to university has risen largely unabated. There has been increasing demand for higher education in general, over and above that due to any population changes, as the graphs make clear. A greater proportion of children have stayed on longer at school and the population from which university applicants is drawn would not be expected to reach its peak until 1983 or 1984.

Over the years, universities have responded to the bigger demand in line with government policies. According to government figures. 2.8 per cent of the

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There are, of course, regional variations, but perhaps the most significant is the one applying to Scotland, where almost twice as many people go to university as in England

Fig 1 Population and university trends

The upper graphs show the population of 18-year-olds in the UK' with past and future projections from the Government's Office of Population Censuses and Surveys. The lower graphs show the number of applications and acceptances to universities and come from UCCA's annual report. Initially UCCA did not cater for all English and Welsh institutions, but since 1968 it has dealt with virtually all applications to between 80 and 83 institutions Candidates who apply exclusively to Scottish university and University College at Buckingham are excluded Definitions of overseas students have varied over the years. The acceptance figures presented differ slightly from those for admittance to university as each year a small proportion defer their



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and Wales, and where the norm is a four-year degree course in place of the usual three-year one.

Recently there have been major changes in Government policy which have had severe effects on higher education. Overseas students must now be charged so-called 'full-cost' fees by universities; currently these amount to £3.600 per annum for a science course. The consequence has been a real decline in the number of university applicants — the first since UCCA was instituted. But, as Fig 1 makes clear, the decline masks a continuing rise in the number of home applicants. The decrease in overseas applications has had serious implications for universities, as the Government has also imposed limits on the numbers of home students for which they will imburse them. In other words, the universities are not free to replace the missing overseas students, upon which they have become financially dependent, with home students. The Government has looked at the financial climate and coming fall in the number of 18-year-olds, and decided that now is the time to begin a significant cutback in staff and student numbers.

To academics this policy has been seen as short-sighted. Unemployment is still increasing and this means it is more likely for the school-leaver to turn to continuing education. Cutting the proportion that can go on to university will itself increase unemployment by 'knock-on' effects, making it more difficult for those least-qualified to find training and employment. Also, it is clear from Fig 1 that the decline in the 18-year-old population will not really get under way until 1990, suggesting that the present cuts are premature. Indeed in a technological age, there ought to be more stress on education in all its facets — higher, further and general.

According to the UNESCO 1981 Statistical Yearbook, the United Kingdom lags far behind countries like the United States, West Germany, Japan and France in tertiary education. It is, of course, difficult to make international comparisons, but it is quite clear that not only do fewer people in this country go on to university or its equivalent but fewer people take third-level education of any kind.

In summary, the universities have been expanded up to 1980, but are now in a period of contraction — although there has been no sign of any lessening demand for higher education.

Ophthalmic optics at university

We can now turn our attention to the changes which have taken place in ophthalmic optics. Ideally one should look at all five English and Welsh departments at Aston, Bradford, City, UMIST and UWIST, but unfortunately the relevant information for all of these is not always accessible. For this reason, I will concentrate on LJMIST,

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Fig 2 Mainly UMIST applicants and entrants between 1964 and 1982



Applicants to optometry are those candidates who have included an optometry course as one of their five entries on the UCCA form. The figures take no account of those who have only applied to the Scottish course. Applicants with optometry preference are those candidates who have put an optometry course first choice on their UCCA form. Applicants to UMIST course are those candidates who have placed a formal application with the UMIST department. In recent years these figures are normally the same as those supplied to UMIST by UCCA. UMIST course entrants are new entrants to the optometry course excluding those who may be repeating examinations. UMIST course mature entrants are here defined as students 20 years of age or older at entry. The first-class honours degrees were awarded three years after the dates of entry indicated. The course drap-outs include students who left for any reason whatsoever but left sufficiently far into the course that it was not possible to provide them with an immediate replacement. The drop-outs indicated have occurred over a three-year period and correspond to the year of entry given. The number of admittances in England and Wales over the last four years has been 232, 227, 229 and 225; whereas the number of acceptances over the last three has been 229. 236 and 236

the department I know most about. Its experiences are not likely to be radically different from the others. I will also be neglecting the Scottish four-vear degree course at Glasgow College of Technology

In 1964, UMISTs Ophthalmic Optics Department probably received around 100 applications. Fifteen years later this had risen ten-fold to around 950 (see upper graphs in Fig 2). Unfortunately, careers advisers and others continue to use gross figures like these in a misleading manner to indicate the difficulty of gaining entry to a course. As UMIST typically takes around 36 students it might be thought that one's chances of getting in were 36 divided by 950 or 1 in 26, a frightening figure. In actuality the student's average chances were closer to 1 in 5 and this should be compared with the chances of 1 in 2 for all university courses combined.

At the time of peak interest in ophthalmic optics, 1,075 UCCA candidates placed one of the five departments first on their application form, thereby indicating a preference for the subject, while 1,304 had at least one of the departments as one of their five choices. Fifty-seven per cent (741) of applicants applied to all five departments. There has been a similar pattern in subsequent years. The number of applications received by individual departments varies. Speculation would suggest this is due to factors such as whether or not a department gives consideration to lower-place choices and whether or not applicants are aware of this; the number of places available in a department; the perceived difficulty of the A-level grades normally asked for; the geographical location of the university; whether or not applications are considered after the closing date; and so on. In any one year there is probably not much more than a 10 per cent variation in the number of applications received by the different departments.

Since the peak-year of 1979, there have been consecutive decreases in the numbers of students applying to study optometry. One can only speculate on the reasons behind this. Higher grade-requirements may have contributed, with potential applicants becoming more aware of the nature of the academic hurdles, and the academically weaker candidates being deterred. My own impression is that one cannot rule out the influence of the undeserved, adverse press that ophthalmic opticians have received at the hands of the media in recent years, and I suspect the decline may have begun at the end of 1979. Certainly, candidates these days are more likely to ask one about the profession's future, something which had not previously appeared to be in doubt - at least not in their minds.

Some of the decrease can be accounted for by a drop in overseas applications. In 1978, 12 per cent of UMIST optics applicants were from overseas, while this year it looks like it will be close to 7 per cent.

Despite the smaller number of applications being received, it would appear that all departments¹ asking grades have remained firm —even edging upwards. This may be due to me number of good school applicants holding-up or could be a result of

an increase in the number of well-qualified. mature candidates. However, the most recent hardening of grades is probably due to the Government's cuts. In line with other university disciplines, optometry is being squeezed with regard to staff and the number of home students it can take. At the time of writing, the picture is unclear and departments are proceeding with caution.

UMIST Ophthalmic **Optics** Department

The UMIST Ophthalmic Optics Department was originally a sub-department of physics. The first undergraduates were admitted in October 1964. These took a three-year Ordinary BSc degree course. In October 1969, UMIST's first Honours Degree optics students were admitted and ophthalmic optics became a full department in its own right. The Ordinary Degree was eventually discontinued and the last ones were awarded in Tune 1980^2 .

From 1964 to 1980 the number of applicants rose rapidly to over 900 per annum, while the number of students admitted rose more slowly to a maximum of around 36 (see Fig 2). This ceiling may have reflected a desire not to produce more optometrists than would be good for the profession and/or be due to the limits imposed by staff and other resources. It is clear that UMIST's intake has not kept pace with the increase in demand from people who saw themselves as potential opticians certainly not from 1968 onwards.

From 1968 (four years after the UMIST Ordinary course was introduced) until 1973 (four years after the introduction of its Honours course) there was little change in the yearly number of new registrations (lower graph in Fig 3). Since then, however, the recruitment rate has increased to its current value of around 250 per annum. As is well known, this has meant that the number of OOs in this country has changed little (see upper graph in Fig 3). The same is true of ophthalmic medical practitioners, but the number of dispensing opticians continues to rise, doubling in 13 years with the number of new registrations in 1981 surpassing that for ophthalmic opticians.

The debate over the number of OOs that this country needs is a complex one. Much has been made of the fact that the proportion of women opticians will continue to rise and, because some will take time off from their careers to raise families, this will mean an increased work-rate for those not so occupied. But, of course, one can expect that technical advances in the feature will assist optometrists in their work. No one really knows how many ophthalmic opticians this country will need, but at the present time it would appear to be a conservative and responsible policy to maintain the present numbers of new entrants without increase or decrease.

Because the demand for ophthalmic optics places has not been matched by the supply,

more selective with regard to applicants. It actual proportion of Firsts is a notorious would be reasonable to expect that this variable. In 1962, Robbins reported that this would lead to better students and better varied from 3 per cent for social studies to 14 opticians. Whether this has happened we per cent for mathematics. At that time might be able to ascertain later. Certainly the around 10 per cent of students graduating in figures do seem to suggest a decline in the science received Firsts compared with only 5 failure rate each year, with the dropout rate per cent of those graduating in Arts. Despite (lowest graph in Fig 2) in recent years being inter-institution, equivalent to 3 per cent over a three-year inter-faculty variation, one would hope for period — roughly one out of 36 admitted. more consistency within a department. It If standards have not declined then this is puzzling that when competition to means that the admissions tutors have been enter a UMIST course has more than trebled doing a better job, the quality of teaching has there has been no corresponding increase in improved, or the students have improved. In the performance of its high-fliers.* fact, the priority of admissions tutors is not so much to persuade the ablest students to Mature applicants choose one's own department in preference to Perhaps one of the most interesting but another's, as to ensure that each student will intractable decide will not to leave. pass their examinations, and will make proper use students. The connotations of 'mature' vary of their degree when they obtain it. Gaps due considerably. To some to dropouts or failures if they occur at any it means a person who is over 21 and has time after the first month of the first term no formal qualifications can rarely be filled, and this means that Some the department will be inefficiently. Someone will denied been ambitions.

On another criterion it might be felt that UMIST was not doing so well. Fig2 seems to show that there may well be a decline in the proportion of first-class honours degrees awarded. On average one in 20 honours students has been awarded a First. One

Fig 3 Population and new registration trends

since 1964





UMIST, like other universities, has had to be should not make too much of this figure; the inter-department and

problems for the all admissions tutor is the selection of mature people who apply, whatsoever of the literature released by working universities appears to hold out the promise have of university education for anyone who an opportunity to fulfil his wants it and who can pass certain special university entrance examinations. Much as this may be an admirable ideal, it is not always a feasible proposition for subjects for which there is a very healthy demand and where the older candidates have good conventional qualifications -A-levels, HNDs, etc. This may seem harsh, but then there is nothing to prevent the would-be mature undergraduate studying for these qualifications part-time. I will use 'mature' in a rather restricted sense to denote anyone who is 20 years of age or older. Normally such candidates will not have come school. Mature app4icants direct from form a very heterogeneous group and no two are alike. Some will have A-levels and have decided to spend a couple of years earning a living because they were not sure that higher education was for them, they were not sure which course to follow, or they simply wanted to have a taste of the 'real' world. This group is easy to deal with. In many ways its members are similar to the 18-year-olds, with the most obvious difference being that they have already sat and passed their A-levels.

> Others of the younger mature-candidates will already have been to university and be applying to do optics on the rebound after a few months, or even a couple of years, studying some other subject. Where they have not actually failed any university examinations their chances of acceptance may be reasonable, particularly if they have good university references, but one has to beware of students trying to get in by the back door, who may have been rejected in previous years.

> Unfortunately, one does come across students who think they can get into university to study course A which requires

> "Since this was written, four out of 17 candidates have been awarded first-class honours degrees in the UMIST ophthalmic Optics finals of 1982 (1979 intake).

low grades and then simply transfer to course B. Such transfers are obviously unfair to the course being used as a stepping-stone and one must be vigilant. On the other hand, it is important that the admissions process should not be totally rigid. Choosing a lifetime's career is a very difficult task and one cannot expect such decisions to be made without the occasional mistake.

At the other end of the mature group are the older candidates who have never entered higher education. Some of these are women who have married while young and brought up a family, or they may be men who left school early but later resumed their education on a part-time basis.

In these days of rapid technological change, there are also those who are seeking retraining. They include teachers and engineers, and people with qualifications up to the level of PhD. Shifts in demands for their present skills, or even changes in their commitments or interests, have convinced these people that there should be a better future for them in optometry. If they have been to university before then they face an additional hurdle, that of financing their own education over three years, with home fees alone currently around £500 per annum.

In assessing the cases of these various, mature candidates, the admissions tutor is perhaps faced with three main problems: (i) Has the applicant the ability to cope with the academic demands of the course? (ii) Has the applicant the appropriate attitudes and motivation to apply that ability successfully? (iii) Is the applicant 'deserving' of a place? Ability is best assessed by reference to previous performances in academic examinations and the like, and does not pose too many difficulties - particularly if one is conservative in the qualifications one takes into consideration. Faced with a candidate who has poor A-levels but has obtained a good second-class honours degree, one would be confident of his or her ability. On the other hand, someone with excellent A-levels but a poor degree would pose a dilemma. Such people will argue that their hearts were not in their recent work and what they have been looking for ail-along is a career in ophthalmic optics. Clearly they would appear to have the ability, but do they have the temperament?

This brings us to the problems of motivation and desirability. In essence, the onus is on the applicants to convince the admissions tutor that they will be a credit to the department and not falter over the three years. This is easier said than done, particularly when Inhere is so much competition. Admissions tutors have moods and the odd fixed idea of what they are doing. What one admissions tutor might consider a detailed, carefully thought out and serious endeavour to gain admittance, might be seen by another as the pushy strivings of a 'big-head'. Persistence is a desirable trait, the overt manifestation of motivation, but some applicants push too August 14, 1982 The Ophthalmic Optician

TABLE 1. SOME ASPECTS OF RECENT UMIST OPHTHALMIC OPTICS APPLICANTS

Year of	Percentage of UCCA applicants who are							
 entry	Overseas	Female	Teenage	Dispensers				
1980	11	43	78	2				
1981	8	44	78	4				
19821	7	47	82	32				

These figures are provisional and subject to final verification.

²This decrease may be a reflection of an open hardening of the criterion used in the selection of DO applicants.

far, although they might be excused for feeling they are in a Catch-22 situation.

Surely everyone deserves a second educational chance, but how easily should these second chances be made available? The problem is that for each mature student one admits, there is room for one less school-leaver. Because of this it seems sensible to set a flexible quota for older applicants, particularly those who might be considered to have already profited from higher or even further education.

One mature group whose applications have increased in recent years is those who have qualified as dispensing opticians (see Table 1), and this is a cause of serious concern. Perhaps the present economic climate has been less kind to DOs than OOs, but surely one must question the continued rise in their numbers (Fig 3)? In the past, UMIST OO graduates have had little difficulty in finding pre-registration posts, but it is true to say that in the last couple of years they have been expressing their concern. The problem has been most acute for the overseas graduate. In England and Wales 15 overseas applicants were admitted in 1979, and 12 and 15 in the next two years. One would hope that this small number could be absorbed by the UK profession each year in order that they may complete their training.

Admissions tutors do not enjoy rejecting applicants, and to sugar the pill they may occasionally make alternative suggestions in the area of health care and paramedicine; suggested careers including chiropodist, dietitian, occupational therapist, speech therapist, orthoptist, physiotherapist, radiographer, medical laboratory officer, remedial gymnast, and *dispensing optician*. But it is crucial to any such suggestions, particularly the last, that they are *never* put forward as *stepping-stones* to a career in optometry. And one must be extremely careful what one says, to prevent the candidate getting the wrong end of the stick.

Dispensing optics is a very worthwhile career in itself and should never be seen as inferior to ophthalmic optics. Despite this, it is clear that a number of DOs feel that they would obtain greater fulfilment if they spent a further four years training to become an OO. It would seem to be wrong to close the door completely, as though a qualification in dispensing disqualified one, but the question of how far the door should be left open is difficult.

At UMIST seven DOs have been admitted to the course in its 18 years, and most of these have entered recently. The impression emerges that an annual quota of one has now been established, in the same way that there is an overall quota for mature students. The aim appears to be to admit the most deserving applicant.

In the same way that unsuccessful applicants to optics sometimes proceed towards other health subjects, unsuccessful applicants to medicine frequently turn their attention to optics. It is not always easy for the admissions tutor to detect these new converts. A candidate with a life-long ambition to become a doctor becomes a fervent apostle of ophthalmic optics, and unless the application is carefully scrutinised this may be missed. Some candidates hide their previous ambitions while others are disarmingly honest about their 'conversion! Why are admissions tutors concerned about these changes? The answer is that one wants undergraduates who are single-minded and committed. An entrant who stays a month-or-so and then announces out of the blue that he has at last been promised a place in a medical school for next year after all is not the most popular of first years, especially when his UCCA form is silent upon such matters. Late withdrawals can rarely be replaced.

At UMIST the proportion of older students admitted each year has varied considerably. In 1964 around 40 per cent of those admitted were 20 or over, and this proportion declined to a low of 6 per cent in 1972. Since then it has remained more-or-less stable at one in five, and this has been matched by the proportions for applicants in the last few years.

The actual age distribution is given explicitly in Table 2 for the 552 entrants between 1964 and 1981. As can be seen, half the entrants are aged 18 with a few as young as 17 and a quarter 19. It is interesting to note that the distribution is a close match to that for applicants to ophthalmic optics at UMIST (1982 sample) and even all applicants to medicine and health (1980 sample). No special attempt has been made to create these identities. If we look at the ages of those accepted for medicine and health, we find some small but significant differences to UMIST and ophthalmic optics, with 10 per cent more teenagers being admitted. In the last 18 years, eight of the UMIST intake have been aged 40 or over, whereas it is interesting (but hardly surprising) to note that for medicine, dentistry and pharmacy there was not a single entrant of that age in 1980 (5,979 entrants) Thus, the ages of UMIST optics entrants are not radically different from

TABLE 2. AGE DISTRIBUTION **OF** UNIVERSITY APPLICANTS AND ENTRANTS.

	Age on September 30 of year of proposed entry (per cent)									Population			
	under 20.0	under 18.0	18.0- 18.11	19.0- 19.11	20.0- 20.11	21.0- 21.11	22.0- 22.11	23.0- 23.11	24.0- 24.11	25.0- 29.11	30.0- 39.11	40.0- over	or sample size
All UCCA applicants ¹ All UCCA acceptances	76 83	4	51 57	22 22	76	4 3	3 2	2 1	1	4 2	2 2	1	168,354 84,695
Medicine and health applicants ⁴ Medicine and health acceptances	79 88	6	51 59	22 24	6	3 2	3 1	2 1	1	4 2	2 1	0 0	16,183 5,978
UMIST optometry applicants ³ UMIST optometry entrants ⁴	79 78	3	53 51	23 24	7 7	42	3 3	12	1 3	3	22	0	726 552

¹Both home and overseas candidates for the year 1980. ²1980 candidates for medicine, dentistry, pharmacy, pharmacology and other studies allied to medicine and health including ophthalmic optics, home applicants showing preference. ³Both home and overseas candidates for 1982, as of February.

⁴Both home and overseas entrants between 1964 and 1981.

other university departments, except that there is the possibility that there is a closer relationship between the age distribution of entrants and applicants than might be usual. At UMIST the optics department sets itself a flexible quota of seven or eight mature students. One of the desirable qualities of some mature students is that they can 'make' a department as far as the university teachers are concerned. They can provide a year with the personality and stimulation which is sometimes lacking in

the average school-leaver, and contribute towards its success — even improving the education that the younger element receive. Each year's intake must be looked upon as a social group and all that implies. As a group it will have a morale and life of its own. The admissions tutor should then, whenever possible, look at a potential applicant to see whether they might enhance the class. Since 1971 all the UMIST mature students have successfully completed their courses, a consequence it is hoped of careful selection

and the mature student's commitment.

In the article to follow I will look at the problem of selection mainly with regard to the school-leaver, the main group of applicants.

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