REFERENCES

Brown, I.A.R., Brit. Orthopt. J. (1974) 31, 83
Catford, G.V., & Oliver, A., Arch. Dis. Child. (1973) 48, 47
Cook, R.C. & Glasscock, R.E., Amer. J. Ophthal. (1951) 34, 1407
Ruskell, G.L., Brit, Orthopt. J. (1967) 24, 25
Mann, I.C., "The Development of the Human Eye" (1928), pp. 114, 236 Cambridge University Press. London Mehra, K.S., Khare, B.B. & Vaithilingam, E., Brit. J. Ophthal. (1965) 49, 276
Miyake, S., Katayama, S. & Honma, C., Pract. Ophthal. (1962) 56, 774
Wybar, K. Brit. J. Ophthal. (1974) 58, 483.

THE EDUCATION OF ORTHOPTISTS IN NEW SOUTH WALES

Patricia M. Lance (Sydney) Presented in Sydney, 1975.

Recent events, which have brought about startling changes in the education of orthoptists in the State of New South Wales, make it desirable to review the education of orthoptists in the past and to consider how far such education should be extended in the future.

In the early 1930's when orthoptics commenced in this country, the training of orthoptists was conducted on a very personal, rather amateurish but highly ethical basis. The first orthoptists were trained by a small number of very enthusiastic young ophthal-mologists who had worked with orthoptists in the United Kingdom. These men were helped and encouraged by some of their older colleagues whose interest in the treatment of Strabismus had been aroused by their experience in practice. Orthoptic clinics were established and many of the early difficulties were overcome by very close co-operation between orthoptists and ophthalmologists. As these pioneer orthoptists gained in confidence and experience they were encouraged to pass on this knowledge to others and so the numbers of practising orthoptists gradually increased.

At the request of the Hospitals Commission of New South Wales, the Ophthalmological Society of New South Wales in 1938 appointed a sub-committee, known as the Orthoptic Council of New South Wales, to regulate the training and registration of orthoptists in this State. This committee drew up a syllabus based on that of the British Orthoptic Board, and in 1939 two students were accepted for the first regular course in orthoptics. In this and the next two courses conducted in 1941 and 1943 each student was assigned to one orthoptist for her whole training, so there was typical master-apprentice relationship. A few lectures in ocular anatomy, physiology and optics were given by ophthalmologists. Students were required to study these subjects from post-graduate texts.

In 1947 on the advice of all practising orthoptists in Sydney, the Orthoptic Council appointed a part-time orthoptic tutor and course co-ordinator (Patricia Lance) to assist the students. At this time orthoptists worked only a few sessions per week at any hospital, so most students had to travel with the clinical orthoptist to different hospitals during the week. With no one hospital for the training centre, the tutor orthoptist had to move her lecture room from place to place, and had no permanent office for many years. As the need for more intensive training of orthoptists became apparent the course increased from t welve months to eighteen months, and then to two years in 1956. Annual intake of students commenced in 1953 and an average of six new students per year were accepted by 1958 and the Sydney Eye Hospital became the headquarters for the training.

In 1938 the newly-formed Ophthalmological Society of Australia appointed a sub-committee, the Orthoptic Board of Australia, to co-ordinate the training and registration of all orthoptists in Australia, and in 1947 reciprocity was granted by the British Orthoptic Board. Revision of the syllabus was made from time to time and joint examinations between the Schools in Melbourne and Sydney were held from 1962. Meanwhile, the Orthop-

tic Association of Australia, formed in 1943, facilitated many useful discussions between orthoptists concerned with the training of students, especially in 1964 when a teaching seminar was held.

In 1970 it became obvious that orthoptists would have to be even more closely concerned with the education of their profession, when the Werner report indicated that orthoptics should join other paramedical professions in a special college of paramedical studies. On July 1st, 1973 the New South Wales College of Paramedical, (now renamed as the Cumberland College of Health Sciences) took over the orthoptic course at that time conducted by the Orthoptic Board of Australia (New South Wales Branch), and an orthoptist, (Patricia Lance) was appointed Head of the School.

Thus, for the first time an orthoptist had full responsibility of the education of orthoptic students. It has proved to be a heavy one. We have found to our cost that it is far harder to describe our teaching plans to a government body than to a professional one.

It became necessary to prepare a document for the Advanced Education Board outlining the course, describing its nature, the need for such a course, its relation to other courses in Australia and overseas, its proposed content, organisation and implementation. It supported a submission for a three year UG2 Diploma of Applied Science. This considerable task was achieved on time, thanks to assistance from the Principal of the College, (Dr. J.O. Miller), the Assistant Principal, (Dr. R. Rawlinson) and some of the educationalists who helped with the layout and writing of the submission, while Miss Valerie Spooner D.B.O. (T), the visiting lecturer from the United Kingdom, took over the orthoptic lecturing. From outside the College the profession rallied in its usual spirit of co-operation, to help with the clinical training of current students, to act on the School's external advisory committee, and even on the Advanced Education Board's external advisory committee. Similar co-operation was received from members of the Orthoptic Board of Australia (New South Wales Branch) and other ophthalmologists.

It was a great disappointment for all concerned when in December 1974 word came back that the three year (six semester) proposal for a UG2 Diploma Course in Orthoptics had been disallowed, but that the Board had agreed on a two and a half year (five semester) UG3 Associate Diploma Course. This meant more work. A complete restructuring has now been completed. In February this year (1975) the first group of students commenced the new five-semester course from which they should graduate in mid 1977. Consideration will be given to re-submission of a three-year diploma course proposal in the future.

In developing the orthoptic course, our broad aims were considered, of developing the student's professional competence to meet community needs while furthering her growth in knowledge, skill and wisdom. The submission listed the specific abilities desirable in the graduate, and the basic directional and educational principles underlying the course. The orthoptic process was seen as the unifying concept. This was expressed in the submission as follows:

"The concept of an orthoptic process is derived from a functional analysis of the role of an orthoptist. The process steps are defined in broad terms as:

- Investigation of the patient's visual and ocular motor system.
- Classification of the patient's ocular deviation based on the results of investigation.
- The development of a plan of patient management based on an accurate assessment and prognosis.
- Orthoptic management including orthoptic procedures for therapeutic processes, continuing supervision and assessment.
- Evaluation of patient progress including recommendation regarding further treatment or cessation of treatment (based on recognised standards for cessation of treatment)."

In the proposed six-semester course, the first phase was orientated towards gaining an overview of the orthoptic process. Considerable emphasis was placed on the underpinning studies in behavioural and biological sciences and on an introduction to orthoptic management techniques. In the second phase of the course the orthoptic process provided a recurring framework for the study of each type of deviation and in the third phase the student was introduced to specialised areas of orthoptics, including the visual problems of the handicapped, and special areas of ophthalmology. Provision was made in the form of electives, for students to pursue particular areas of clinical interest.

The module structure of this course has been retained in the five semester course, the main differences being in the hours spent on each unit and the dropping of the twelve-week elective. It is noped that our aims will still be achieved. For this it is necessary to improve both the teaching methods and the student's learning techniques. Teaching now is not just a matter of giving lectures and handing out a few notes - it involves tutorials and seminars, written work and viva voce examinations, projects and assignments, case study and discussion. Audio-visual equipment is available to improve the standard of lectures and demonstrations, and the lecturers are becoming familiar with the use of overhead projectors, slides, films and video-tapes.

Learning is most effective when the student works things out for herself. The "orthoptic process" concept provides for this. In following through the orthoptic process, applying her theoretical knowledge to the interpretation of clinical data of increasing complexity, the student is helped to integrate orthoptic theory with clinical practice; she gains competence and confidence in decision making, and is stimulated towards an analytical and evaluating approach.

The most obvious difficulty in augmenting the curriculum is the relation and balance between formal academic work and clinical experience. As has been seen, orthoptic education in its early stages was largely a matter of clinical training. The academic side has been gradually increased and grafted into the existing clinical experiences. Now with absorption of the academic side into a college of advanced education, there is a danger that a gulf could grow between these two aspects of the student's education.

The School must not grow too far away from the clinical field; by the same token, clinical orthoptists must strive to keep up to date with theoretical knowledge. Students tend to take more notice of what they see than of what they read or are told. Their clinical experience must be of the highest standard. It is essential that academic and clinical staff retain the closest possible contact.

The final problem to consider is assessment of the student's performance, one of the most difficult aspects of teaching. What criteria are to be used? How is it possible to know who are safe to be let loose on an unsuspecting public? Most authorities seem to agree that continual assessment is fairer than for all to depend on one final examination. But is there any objective way of assessing clinical expertise? Can it be equated with academic expertise? Which is more important in the education of the orthoptist? There are no clear cut rules to follow. Lecturers, examiners, and clinical supervisors can only do their best to be fair both to the student and to the community at large.

All these points are matters of much concern for those involved with students at the Cumberland College. Workshops and seminars are being held on teaching methods and there is an excellent forum for multi-disciplinary discussion, especially between the "health professionals" and those teaching behavioural and biological science. The educationalists in the College are available to help those who need it in the planning stage or in the implementation of programmes.

The field of education is very challenging but always exciting. The orthoptic members of the College hope that from time to time they will be able to report interesting developments to these conferences, and that the relationship between the College and the Orthoptic Association of Australia will always be close and mutually stimulating.