NEWSLETTER

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Groupe international de recherche sur l'enseignement de la physique
International Group for the Advancement of Physics Teaching
Internationaler Arbeitskreis zur Förderung des Physikunterrichts

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1. PROCEEDINGS FROM THE MONTPELLIER MEETING

Hopefully every member of GIREP will have already received the Montpellier proceedings as a gift from UNESCO and GIREP. It is of the utmost importance that the message from the Montpellier meeting contained in the many inspiring articles on physics education reach a large number of people interested in physics education. Therefore, each member is asked to help to make the book well known in his own country. Write about the book in your national magazines on physics education and encourage the librarians at your institute or and other similar institutes to buy it.

2. THE JOINT GIREP-IUPAP SEMINAR IN OXFORD JULY 14-21, 1978

The American AAPT Announcer (December 1978), edited by A.A. Strassenburg, gives the following excellent report on the seminar:

The International conference on the Role of the Laboratory in Physics Education was held at the University of Oxford, England from July 14 to 21, 1978. The conference was attended by nearly 150 invited members from 48 different countries. The International Commission on Physics Education (ICPE) and GIREP (Groupe Internationale de Recherche sur l'Enseignment de la Physique) were the joint organizers of the conference. In addition to the central topic of the conference, the following two subsidiary themes were also discussed; (1) the teaching of electronics and (2) the teaching of optics.

The conference opened with a talk by G. Brodin (Sweden) entitled "The role of the laboratory in the education of industrial physicists and electrical engineers." This was followed by a talk by V.M. Talisayon (Philippines) entitled "School laboratory work in the Philippines: Problems and issues in a developing country." Next was a talk by P. Black (U.K.) on what happens in laboratories, concerning school laboratory teaching in several countries. The afternoon session on aims and organization of laboratory work centered on discussion of the findings of the national surveys on the above topic conducted by P. Vitta (Tanzania), C. Gonzalez (Chile), V.M. Talisayon (Philippines), G. Marx (Hungary), R. Ahmed (India), and M. Mokhatar (Egypt).

Nine discussion groups were offered to the members: (1) The assessment of practical work; (2) Project work; (3) Electronics; (4) Optics; (5) Aims of practical work; (6) Practical work in developing countries; (7) Organization of practical work; (8) Resources for the laboratory; (9) Low cost apparatus. The main purpose was to study the various themes and each group met six times. One of the purposes of these workshops was to acquaint the sponsoring organizations with the needs and wishes of the participants from the various countries. To this end, a final report was presented by each group leader on the last day of the conference.

On the day set aside for Electronics, the session was addressed by M. Zawawi (Malaysia) on Electronics in Physics - How and How Much? He was followed by G. Foxcroft (U.K.) on Teaching Electronics - the Modular Approach. Several participants presented short talks on various aspects of electronics teaching including J. Layman and R. Tinker (both from U.S.A.). In the following plenary session, points raised during the presentations were discussed.

A day devoted to the projects and assessment featured three main speakers: A. Trotter (U.K.) spoke on issues in project work; F. Watson (U.S.A.) and I. Dunn (Australia) spoke on issues in assessing practical work. Short talks on the above topics by several participants followed. At the end of the day, a plenary session considered the points raised during the presantations.

The session on the day devoted to Optics was addressed by S. George (U.S.A.) on undergraduate optics laboratories in American universities and by E. Rogers (U.K.) on optics taught solely in the laboratory. These presentations were followed by short talks on various aspects of optics teaching by several participants.

Several poster displays and papers under specific themes were displayed throughout the conference. These included laboratory-lecture videotapes in physics by H. Meiners and laboratory and programmed calculation by A. Portis (both from the U.S.A.). Certain tabled papers were available for inspection and copies were available on request. Some of the titles of interest were: (1) On the role of laboratory work in the training of physics teachers in Finland; (2) Who needs laboratories? (3) Laboratory work in physics education at the engineering faculties of Belgrade University; (4) Relevance of practical worl to comprehension of physics; (5) Educational projects at university level in Mexico.

Laboratory equipment produced at low cost in various countries was displayed throughout the conference. The countries represented included France, the Philippines, India, Kenya, and Malaysia. Two symposia were organized, one on laboratory work in developing countries, coordinated by B. Robinson (UNESCO), and the other on practical work on a low budget, coordinated by N. Joel (UNESCO).

Four very interesting and well-attended evening lecture demonstrations were also arranged. The titles and the speakers were (1) "Physics and the sound of music" by C. Tayler (U.K.), (2) "Images and information" by B. Jones (U.K.), (3) "Experiments in space" jointly presented by P. Thomsen (Denmark), A. Loria (Italy) and D. Scott (U.K.), and (4) "Physics is fun" by J. Walker (U.S.A.). It is expected that the proceedings of the conference will be published in 1979.

Credit for the conference is due the organization committee and particulary to A.P. French (Chairman, ICPE), P. Black (Acting Chairman, National Planning Committee) and B. Woolnough (Conference Secretary, who managed to put on smiles throughout the conference regardless of the problems encountered).

Finally, no account of the meeting would be complete without mentioning its social highlights. Visits for members and families were arranged to Stratford-on-Avon, Warwick Castle, Blenheim Palace (birthplace of Sir Winston Churchill) and London. The hospitality program included a welcome reception, the University reception, and a sumptuous conference dinner the evening before the closing day - a thoroughly delightful evening indeed.

The proceedings will be published in form of a book, edited by GIREP's vice president John Lewis.

3. COMING GIREP CONFERENCES

At the meeting of the Commission of Representatives in Oxford it was decided to hold the next GIREP conference at the Weizman Institute in Israel, August 19-24, 1979. The conference will be concerned with the following two topics:

1. Oscillations and waves.
2. Current problems in physics teaching (Culturally deprived students, mixed ability, social aspects).

All members should already have received the first announcement of this meeting, and the organizing committee has already received more than 100 filled in forms from members who want to participate. Anyone, who for some reason, has not received the announcement can get one by writing to

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Weizman Institute of Science
Rehovot, Israel.

In Oxford decisions were also taken about the GIREP meeting following the Israel conference. It was decided to hold this conference in Hungary in 1981.

4. MEETING OF THE COMMISSION OF REPRESENTATIVES

According to Article 10 of the Statutes of GIREP a meeting of the Commission of Representatives must take place during the Israel conference. The Agenda for this meeting is as follows:

1) Election of Chairman.
2) The President's Report.
3) The Treasurer's Report.
4) The Editors' Report.
5) Election of president, vicepresidents, treasurer, secretary (the committee).
6) Plans for coming Seminars.
7) Discussion of received proposals for future activities.
8) Any other Business.

Article 11 of the Statutes states that members of the Committee shall be elected for a period of approximately 4 years.

Call for proposals for future activities

Proposals for Agenda Item 7 (above) should reach the GIREP office in Copenhagen not later than August 1st.

5. NUMBER OF GIREP MEMBERS AND PAYMENT OF MEMBERSHIP FEES

GIREP now has 342 members from a total of 43 different nations. Any member (except Italian members) who has not yet paid his membership fee for 1978 will find a reminder enclosed with this letter. In agreement with article 17 of the Statutes, members who have not paid for 1978 at the end of this year will be considered as resigned. To allow for possible delay caused by postal troubles the revision of the membership list will take place at the end of March, 1979.

6. GIREP'S STUDY OF THE EDUCATION OF PHYSICS TEACHERS IN DIFFERENT COUNTRIES

Brian Davies, who is in charge of the study sends the following report:

Progress Report on the GIREP/UNESCO publication, "World-wide Systemt for the Education and Training of Physics Teachers".

Dr. N. Joel, of UNESCO, was most helpful to GIREP in providing a list of names of correspondents in countries who do not yet have official representation in GIREP. As a result some 60 people were asked at the end of 1978 to bring their old Reports up to

date, or to write new Reports for us. Both groups of correspondents, the "old" and the "new", were also asked to provide statistical information concerned with numbers and types of educational institutions and ministeries, school populations, and so on. Thus the information given in the book will be less than one year old, for the manuscript is scheduled for completion by July, 1979. After the publication it is our intention to produce supplements which include updated information from present correspondents and, of course, completely new Reports from countries not included in the first publication.

The section devoted to each country will begin with stastistical and other practical information - such as the names and addresses of correspondents and of ministeries - move to an analysis of the science-teacher education system, explained with the help of diagrams, and then give the correspondents' Reports in their original form with, if necessary, a translation into English.

If there are any readers who have promised to write reports, or to update information, but who have not yet managed to find time to send the information off, may I urge them to do so before the end of February, please.

Brian Davies, Goldsmiths' College, Physics Dept., New Cross S.E.14, London, U.K.

7. EUROPEAN JOURNAL OF SCIENCE EDUCATION

Primary needs in experimentation in Science Education over the past two decades or more have been (1) adequate communication between experimenting groups and between them and the "practitioners" in the field and (2) significant evaluation of the experiments. It is hoped that a new journal appearing on the scene (EUROPEAN JOURNAL OF SCIENCE EDUCATION) will help to satisfy both needs. The first issue bids well to do so. It is hoped that the quality of contributions can be continued high, permitting the journal to make its contribution quickly and continuously. Limitation to four issues a year, and an intention to serve many constituencies flexibly*, increase the possibility that this will be the case.
Of particular interest to teachers of physics will be the fact that of 15 contributions to the first issue, four are on physics teaching specifically and seven on science and science teaching generally, including physics. Countries represented by these papers include: F.R. Germany, Italy, Sweden, Switzerland, UK, USA, USSR, and Yugoslavia. Contributions are expected in the coming issues from projects and authors in other countries.

*Broad aims: (1) To publish major advances and report current trends in the theory and practice of science education. (2) To act as a means for the dissemination of researches and research findings in science education. (3) To facilitate the transfer and the cross-fertilization of knowledge in science education between countries. (4) To promote the recognition and understanding of the interaction of science education with external forces such as industry, government, economics, and attitudes of society as a whole. (5) To provide a forum for the exchange of views and opinions on all matters of science education.