

provided an adequate form for technical discussion are no longer performing this function because of the tremendous increase in the number of participants and of the ensuing limitations of time. For the last twenty years or so symposia, i.e., scientific meetings with limited attendance and with only invited speakers, have been used more frequently because of the advantages offered by bringing together a relatively small number of specialized scientists. The climate of such gatherings is more conducive to a high level of technical discussions than the larger and more heterogeneous scientific congresses. When, however, the symposium has a relatively large number of participants and their primary interests are diverse, a problem of communication arises. One such problem was faced by the organizers of the international symposium on 'Perspectives in Marine Biology', held at the Scripps Institution of Oceanography of the University of California at La Jolla, California.

The primary purpose of this conference was that of identifying those areas of investigation that could be most profitably attacked at the experimental level in the field of marine biology. For this aim it appeared necessary to invite a number of biologists representing a wide range of specialized interests, such as marine and non-marine ecologists, physiologists, microbiologists, biochemists, etiologists, geneticists and evolutionists. The actual participation was as follows: 47 invited participants, 131 observers; 14 nations were represented. In developing the conference design, the planners considered the following problems which were inherent in the nature of the symposium: (1) the difficulty of communication between specialists in the different scientific fields represented; (2) language problems because of the different nationalities represented; (3) the tendency of some scientists to focus on single areas of research rather than on broad problems of the total field; (4) the reluctance of some scientists to explore unfamiliar grounds in the presence of their colleagues; and (5) the tendency of specialists in a particular field of science to seek out and converse with colleagues from the same field rather than from other disciplines.

In one respect this conference was like many other symposia: scientists were invited to prepare papers in advance and read them at the meeting; each formal presentation was followed by a discussion of the issues raised by the speaker, to which all the attendants, invited and observers, were free to participate. However, in order to provide a setting in which interdisciplinary thinking could better take place and where new areas of research might be found, this particular symposium included another element: the 'Idea Group'. Six such groups, consisting of eight or nine invited participants, plus a discussion leader and a recorder, met periodically throughout the conference. Each 'Idea Group' included scientists from the different fields represented at the conference. These heterogeneous groups met every noon for lunch and several other times during the symposium. Their stated purpose was that of dealing with the broad question around which the entire symposium was built: What are now the most promising areas of experimental research in the field of marine biology? The 'Idea Groups' were instructed to use the formal presentations as background and as a springboard for discussing this general problem. The discussion leaders and recorders of each 'Idea Group' were members of the staff of the host Institution. A week prior to the conference, these leaders and recorders met to be oriented to the conference design, the purpose of the 'Idea Groups', methods to get them under way, and the roles the leaders and the recorders were expected to play.

The recorders prepared a written summary of the subjects discussed during each working session of the groups; the highlights of these discussions were also reported to all the members of the symposium at the final session by a panel including one person from each 'Idea Group'.

At the end of the conference each participant was asked to fill out an evaluation form in which questions were asked about the value of this conference design.

In spite of some doubts expressed at the beginning of the conference about the value of the 'Idea Group', the participants at the end expressed general satisfaction with this experience and felt that this kind of conference design would be useful in other scientific conferences of this type. The planned heterogeneity of the groups appeared to be useful and appreciated in that it provided a fine opportunity for participants in the conference to become better acquainted with colleagues from other disciplines. Probably the term 'Idea Group' was not very fortunate; a more appropriate name might be adopted in future conferences. A thorough orientation of the leadership (leader and recorder) prior to the conference appears essential for the success of this technique. That this design has a definite value in symposia of this kind follows also from the fact that one of the participants used it successfully in the organization of another scientific conference held in France last summer.

A. A. BUZZATI-TRAVERSO*
and W. H. SCHMIDT

Scripps Institution of Oceanography, La Jolla, California and Department of Conferences and Special Activities, University of California, Los Angeles, May 9, 1957.

* Gegenwärtige Adresse: Istituto di Genetica, Pavia.

Corrigendum

Å. BERTLER, A. CARLSSON, MARGIT LINDQVIST, and T. MAGNUSSON: *On the Catechol Amine Levels in Blood Plasma after Stimulation of the Sympathoadrenal System*. Exper. 14, fasc. 5, 184 (1958).

There has been an error in the scale of the Figure B on page 185; corrected scale see below:

