DISCUSSION: AFTERNOON SESSION, JUNE 4TH

CURRICULUM ORGANISATION, INTEGRATION AND SEQUENCES

Report by FRIEDRICH KUEBART (Bochum)

Before discussion on the two papers commenced, Dr. J. Zapletal (scientific worker of the Czechoslovak Academy of Sciences, Prague) expounded some ideas on the systems theory approach to methods of comparison. This approach conceives of the world as a universal system composed of subsystems. Each of these systems consists of elements, properties of elements and relations between elements. A set of relations forms a structure. In a comparison of two systems it is not the elements which are compared, but the relations of these elements and thus it is not a comparison of two systems as such, but of structures. Furthermore, no system exists without environment and this again is a set of elements, properties and relations. In order to be complete, therefore, a comparison of systems must also consider the interchange of effects between system and environment. As there would be but few isolated systems there would generally only be a point in using the comparative method where the environmental factors, e.g. social conditions as well as the systems to be compared can be taken into account.

The subsequent discussion did not start by considering these general questions of methodology, but returned to the problems of curriculum theory. It was pointed out that it is possible to distinguish various kinds of curriculum theories which are all based on general epistemological theories, i.e. those of Aristotle, of Marx or of pragmatism. From each of these general theories concrete ones were developed, and finally objectives, for which the example of polytechnical education, the introduction of polytechnical subjects into the curriculum, together with the number of hours to be devoted to them, was given. It was argued that, more necessary than general theories today, are second and third level theories for the practical work of the teacher. Frequently, conflicts arise between academic theories and the theories of practitioners.

The problem here consists of reorganising data relevant to the twentieth century. A further contribution to the discussion was made by a participant from Czechoslovakia who regarded history and philosophy as the two basic factors in the problem of curriculum integration. To produce a modern curriculum, it is not sufficient to make a comparative analysis of existing curricula as the basis. It is necessary to proceed from the main trends in modern life and their philosophical roots. The speaker shortly described the dominant features of contemporary life as: (1) its increasing dynamism which creates contradictions in social reality; (2) the dialectical tension between integration and differentiation. While modern technology requires co-operation, the state of development of human knowledge enforces differentiation; (3) the growing significance of human creative power as a means of overcoming
contradictions. The curriculum possesses a structure as dynamic as modern life itself. However, this dynamism is historically conditioned. For this reason, dialectically based historical thinking which leads to the understanding of the idea of a changing world, with its contradictions and continuity, is one of the most important features of the modern curriculum. In this concept history is the integrative moment of the curriculum. This latter is no longer a conglomeration of different subjects but based on an understanding of the role of man in history. It aims at the education of a personality conscious of change and able to overcome contradictions. As this is a task not only for school but for life-long education, the school curriculum is to be seen as part of the whole life process.

Professor Springer drew attention to the fact that her research had found but little overt reference to theories underlying new curriculum planning in the countries examined. There was no evidence of the use and application of either philosophical or pedagogical or social science theories though these might, of course, have been present in the minds of those dealing with curriculum reforms. A definition is therefore necessary of that which is to be understood by the word ‘theory’, whether philosophical theories or empirically gained generalisations. Thus, in order to proceed from a less ambitions term, Professor Springer said she had confined herself in her study to demonstrating, where possible, underlying principles. However she requested the speakers referring to theories to define their conception of theory as she was still open-minded on the subject. Another member suggested that members of the conference should content themselves with a working definition of theories and principles as the role of theory varies much from country to country. Some countries are just not theory-minded, while others are.

One of the speakers brought up the objection from the pragmatic point of view that the conference should first proceed by comparing recent curriculum reforms and then enquire into the theoretical background. The comparison should be confined to one particular field where it would be possible to try out the various theories. One such current problem he felt to be the education of natural scientists and engineers, and it would be of value to see what plans made for this aim at in the different countries and whether they can be compared. Here, cultural traditions must also be taken into consideration. Such a comparison would have to deal not only with structures but also with contents and social environment. From a practical examination one could then continue to the theory.

In answer to the question concerning curriculum theory, Professor Robinson briefly defined his idea of theories concerning curriculum development. He saw them as a consistent system of relationships between the relevant variables in the structure of the curriculum. The relevance of the variables has to be decided individually. Referring to the problem of a systems approach, he continued that in comparisons an attempt is made here to identify the different variables within one particular field. He acknowledged the importance
of the classification of the aforementioned epistemologies for the identification of variables, but he denied that these approaches existed in practice in such a pure form. In the U.S.A., for example, it is more a question of a combination of Aristotelian and pragmatic elements (Phenix) and in the Soviet Union, too, didactics is based on a variety of elements. It is the task of the comparative method in this field to identify problems by looking at various problems in various countries. Also in answer to the question of curriculum theory, Professor Markushевич sketched some of the features of a future theory of curriculum development. It would have to proceed by collecting and ordering facts. In a comparison the characteristics could be elaborated, similar to the methods used in botany. After the characteristic features have been established the analytical work would commence. Via the question of the genesis of the systems it is then possible to reach a general theory.

Professor Lauwerys returned again to the suggestion that one should start with the comparison of concrete matters and emphasised the necessity of moving towards a quantification of comparison and of developing terms applicable to the whole world for the different stages of education. There was disagreement here, as it was felt it would be more appropriate to start with a few countries rather than with the whole world.

Concluding the discussion Professor Robinson expressed his conviction that a taxonomy such as that of Linnaeus would not suffice, nor would the collection of various factors as in the IEA study. Without taking into consideration the framework of the manifold influences, the comparison of a few features would be insufficient as a basis for curriculum work. What is really necessary is a theory embracing all possible factors so that each problem arising can find its place in it.

**DISCUSSION : SESSION DE L'APRÈS-MIDI, 4 JUIN**

**ORGANISATION, COMPOSITION ET ORDRE DES PLANS D'ÉTUDES**

par Friedrich Kuebart, (Bochum)

La discussion, qui se rapporte aux exposés présentés par le Professeur Lauwerys et par le Professeur Suchodolski, fut précédée de quelques observations, émises par le Dr. J. Zapletal (de l'Académie Tchèque des Sciences, Prague), qui insista sur le fait que, dans la considération théorique des systèmes, une méthode comparative n'aurait de valeur que si le facteur 'environnement' entrait en ligne de compte. Un autre membre Tchèque soutint que l'histoire et la philosophie étaient les éléments fondamentaux du problème de la composition des programmes d'études. Une analyse comparative des programmes d'études actuellement en vigueur devrait être accompagnée d'une mise en évidence des principales tendances de la vie moderne et de leurs racines philosophiques.

Le Professeur Springer affirma que, au cours de ses recherches, elle n'avait trouvé aucune preuve de l'application de théories philosophiques, pédagogiques ou sociologiques dans la
préparation de nouveaux programmes d'enseignement, alors qu'elle-même avait attaché une grande importance à ces principes. Un autre membre soutint que la conférence devrait d'abord établir des comparaisons entre les récentes réformes des programmes d'études, pour ensuite rechercher les fondements théoriques à partir desquels ces réformes ont été faites. Le Professeur Robinson ajouta à cela sa définition des théories sur l'élaboration des plans d'études. Il voit en ces théories un système d'étroites relations entre les variables qui influent sur la structure du programme d'études. Le Professeur Markushevich affirma qu'une théorie générale de l'élaboration du plan d'études devrait se dégager d'une série de faits, à partir desquels l'on pourrait établir ses caractéristiques, en passant du général au particulier. Les Professeurs Lauwers et Robinson concluent cette discussion, le premier en recommandant l'élaboration de termes applicables dans le monde entier aux différents stades de l'enseignement et le second, en exprimant sa conviction sur la nécessité d'une théorie où tous les facteurs possibles entraînaient en ligne de compte.