A structural foundation for tomorrow's education

Retrospective

From the quantitative point of view, the large and constantly growing number of schoolchildren has resulted in a situation everyone is familiar with. On the one hand, with the raising of the school-leaving age, greater educational equality for girls and boys and State financial assistance (scholarships, etc.) there is more fairness in the educational opportunities offered to the young today, as is apparent from the constant and sometimes disturbing increase in the number of university students. But on the other hand, as this explosion in student numbers has not been accompanied by a much-needed social upgrading of the teaching profession at the secondary and particularly the primary level, the result has been a shortage of school-teachers. This has led to the employment of substitutes and created a problem with regard to academic qualifications.

Nevertheless, an effort has been made to diversify curricula, particularly in vocational and technical areas, which is an improvement, and a number of steps have been taken to improve students' orientation by making it possible to change from one section to another, especially at the beginning of secondary school. The 'orientation courses' have been very useful in this respect, but in spite of the worth-while work of educational psychologists, the value of the orientation and selection procedures remains an open question. The role and importance of examinations is a sore spot in education which does not always readily respond to treatment.


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STATEMENT OF THE PROBLEM

But from the qualitative point of view, the only one that interests us here, a series of more or less new trends has become apparent in the various countries leading present-day movements. Thus, an attempt to reform pre-school education, sadly neglected up to now, is being made in several of them, in particular the United States. The main idea is that kindergarten for underprivileged children should offer them ethically and intellectually stimulating surroundings in which the atmosphere and above all the abundant and diversified material employed will compensate for the shortcomings of their family life and arouse their curiosity and energies. As to the methods used to direct all this, they fluctuate between two extremes, and reflect two opposite currents in contemporary psychology. One is characterized by use of conditioning: establish and reinforce by practice and action a certain number of motor or verbal associations which are considered essential to knowledge to be acquired later on. The other by an appeal to the spontaneous activity of the child itself in the direction of a cognitive organization which prepares for the mental operations normally appearing at about age 7–8. Inspired by the psychological research of the Geneva school, sometimes well interpreted (like the educational achievements of Allmy, Kamii, H. Furth, and so on in the United States), but sometimes also rather naively and unsatisfactorily, these applications may develop in a number of ways. We shall return later in the article to what can be expected from the beginnings of cognitive activity—in regard to adequate observation of objective phenomena—as an introduction to the teaching of the sciences.

In line with what has been said above, the following changes can be seen at the primary level in certain countries (once again, the United States in particular). A few years ago, the main trend, especially owing to the widespread influence of psychoanalysis, was carefully to avoid frustrating the developing child in any way. This led to an excess of unsupervised liberty which ended in generalized play without much educational benefit. A reaction has taken place in the direction of a channelling and strengthening of cognitive activities. And here the opposition between the two extremes is even clearer. It results from the differences in the psychological convictions held.

The role assigned to conditioning, particularly under the influence of Skinner, has led to the ideal of programmed instruction through progressive associations mechanically arranged ("teaching machines"), and the enthusiasm for this approach in some circles is well known,