

board covers of the one official text-book. The only questions he can allow are those he asks himself, for they are the only ones of which he can be sure of knowing the answers. So the classroom must become formal. At the stage of formalism, symbols have more meaning for children than at a dame school stage, but it tends to be a narrow and restricted meaning. Classroom facts and skills are thin disparate things that mesh poorly with one another and scarcely at all with the warm rich world of the child's personal life.

It is tempting to try to find a short cut from the dame school stage or the lower levels of the stage of formalism to the best of modern teaching methods, but there seems little hope of this if the difficulty to be overcome is really the meagre education of the teachers who are themselves the products of the schools one is setting out to reform. With help and advice, the stage of formalism can certainly be reduced in length, but the reform of a school system is a skilled and delicate business, where too much haste can create confusion, and where our own

unanalysed experience may not always be the best of guides. The difficulty is increased by the fact that not all the teachers in a system at any moment have the same capacity to take up new and complex methods.

A new element of urgency has developed with the explosive demand for education in newly independent States that has been one of the striking characteristics of the past decade. The demand for education, indeed, has become a new political force in the world, a force that no democratic Government can long resist, and countries are sometimes driven to launch ambitious schemes of universal education before they have teachers with enough education to make them effective. Unless there is to be a great waste of effort and grievous disappointment with the results of popular education in emergent countries, there is urgent need for a scholarly study, from a new and practical angle, of the whole natural history of the educational system and of the factors that help or retard its progress from stage to stage.

EXPECTATION OF LIFE IN THE UNITED STATES

A RECENT report issued by the Metropolitan Life Insurance Co., New York, directs attention to the fact that the average length of life (expectation of life at birth) among industrial policy-holders reached a new record of 70.5 years in 1960*. This is slightly above the figure for 1959, and only half a year greater than that for 1955. But although recent increases have been limited, long-term gains have been very impressive. Five years have been added to the average length of life of these policy-holders since 1946, ten years since 1937, and twenty-four years since 1909. In 1879-94, the earliest period for which data are available, the average lifetime was only 34 years—less than half that for 1960.

The largest gains in expectation of life have occurred at the younger ages. Thus, at the age of 5, the figure for 1960 was 5.9 years greater than that two decades ago. At the age of 40, the increase since 1940 has been 4.3 years, while at 65 the average future lifetime of those insured has been extended 2.3 years to its present level of 14.2 years.

* Metropolitan Life Insurance Company. *Statistical Bulletin*, Vol. 42 (June 1961): *Voting Population at Record High. Recent Variations in Pneumonia-Influenza Mortality. Longevity of Industrial Policy-holders in 1960. Accident Death Rates Decreases in Most States*. Pp. 12. (New York: Metropolitan Life Insurance Company, 1961.)

The longevity of American wage-earners and their families has increased more rapidly than that of the general population of the United States. In 1909, the expectation of life at birth of the industrial policy-holders was about six years less than that of the population as a whole. By mid-century the two groups were on a par; at present industrial policy-holders have a slight advantage.

The long-term achievements in the conservation of life are accentuated by the very low death-rates now experienced in early life. Mortality of the coloured policy-holders, particularly beyond childhood, is considerably higher than that for whites. Among females, the rates for the coloured are at least double those for the whites from age 23 to the end of the child-bearing period. Even though the difference is not as large for males, the ratio of mortality among them for the age-range 24-39 is more than 3 : 2.

Similarly, the average length of life is appreciably greater for white than for coloured policy-holders, and in each race is greater for females than for males. In 1960, the expectation of life at age 5 years was 70.7 for white females, compared with 66.2 years for coloured females; the corresponding figures for males were 63.8 and 61.9 years.

THE AMERICAN ACADEMY OF ARTS AND SCIENCES

THE *Records of the American Academy of Arts and Sciences 1960-1961** includes, as usual, the list of officers and committees, lists of members (including those elected May 10, 1961) with alphabetical index, the statutes and charter of incorporation, and reports submitted at the annual meeting. Special interest is given by the valedictory address of the retiring president, Kirtley F. Mather, which, under the title "Assay and Perspective" reviews the activi-

* American Academy of Arts and Sciences, Boston. *Records of the Academy* (including new members elected 10 May, 1961), 1960-61. Pp. 157. (Boston, Mass.; American Academy of Arts and Sciences, 1961.)

ties of the Academy during the four years of his presidency before appraising the present position of the Academy and its responsibilities and opportunities during the next decade. While it was doubtful whether the fullest possible use had been made of the Academy's new house, Mr. Mather thought that the success in developing its publication *Daedalus* as a journal of ideas and opinion had been outstanding and the Academy had been most successful in its development of conferences on topics of wide importance and interest.

As regards research, 119 grants totalling 91,903 dollars had been made in the past four and a half