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Reactions of an Educational Psychologist to the Worth Report

My object, in this paper, is to comment on the Worth Report proposals that appear to fly in the face of evidence from psychological research and theory. There is a great deal in the Report which is stimulating, though often marred by overoptimistic idealism, and by rather vague verbiage and silly or loaded pictorial illustrations. There is a great deal that I know too little about to have anything worthwhile to say. And probably, like most readers, I react strongly against some proposals that appear to threaten my own status, values, and my own approach to teaching. I have tried to avoid all these topics, except the first, in what follows.

Main Underlying Assumption

Though perhaps not explicitly stated, the underlying assumption of the whole Report seems to be that by rational replanning of the education system we can produce a different kind of man in the future who is better fitted to cope with the inevitable social and technological changes in the modern world, especially if we are prepared to spend much more money on educational expansion. Now though it is true that the economically more prosperous nations generally have better and more effective education systems than the poorer ones, yet there is no satisfactory evidence that variations in type or costliness of education within a single country make significant differences. The International Project for the Evaluation of Education¹ found that measurable differences between schools had very little effect on achievement in mathematics or reading comprehension, as contrasted with differences in home background and ability of the students. Likewise Jensen² showed that the qualities (whether genetic or environmental) that students bring with them to school determine their success far more than do variations among schools. Indeed small classes, individualized instruction and availability of reading specialists may correlate negatively with reading achievement³. This does not prove that their

¹T. Husén (edit.), *International Study of Achievement in Mathematics*, (Stockholm, 1967). R. L. Thorndike, "Reading Comprehension across National Boundaries," A.E.R.A. Meeting, Chicago 1972.

²A. R. Jensen, "Do Schools Cheat Minority Children," *Educational Research*, XIV (1971), pp. 3-28.

³R. L. Thorndike, *op. cit.*

effects are adverse; more probably these advantages are more often supplied to schools where there are many poor readers. But it is difficult to prove their effectiveness. As for the *Worth Report's* demand for 50 per cent more of total personal income than at present to be spent on education by 1990, my prognostication would be that this would exacerbate public criticism of education, and deter parents and others from participating in the planning (p. 39).

A further important reason for being suspicious as to the possibilities of change is that it would be at least as difficult to influence teachers as it would students. There are of course innovative and progressive teachers, but probably a much larger number of conservative ones who have taken up teaching mainly for the sake of security or because they have no obvious aptitude for other professions. The Report realizes that they are a limiting factor (pp. 170, 193, 237), and that selection of suitable recruits for teaching is at present very "chancy", despite much psychological investigation. I agree that self-selection following experience at the job is about the best technique currently available (p. 238), but this of course will only help to ensure that such teachers like children or students and the job as at present constituted, not that they will adjust to new demands in the future. Thus the feasibility of the proposals should be judged in the light of the characteristics of the people who are supposed to operate them.

Changing of Attitudes, Character Traits, and Intelligence

While reading comprehension will probably always remain a necessary part of a good education, the *Worth Report* is not so much concerned to maintain or increase conventional achievement as to encourage more social cooperation, independent thinking, and the development of creative capacities (pp. 40 f.). A whole string of studies from Hartshorne and May's *Character Education Inquiry*⁴ in 1928 onwards has shown that schools cannot manipulate and change attitudes in desired directions. A recent example is an investigation by a student of mine, H. J. Miller⁵, who got some 30 teachers of day-release classes in a technical school in London to try to reduce prejudice against West Indians, each using his own methods. Naturally there were problems in getting a satisfactory criterion, but, overall, prejudice tended to increase, and no one technique and no single teacher managed to achieve a significant reduction. Surely, if rational planning, aided by the researches of psychologists, were able to improve people, delinquency statistics should have declined over the 47 years since Burt published *The Young Delinquent*⁶, instead of continually rising. Of the six general goals listed on pp. 47-8, only the last one — career proficiency — would appear to an educational psychologist to be susceptible to educational improvements. The others are certainly

⁴H. Hartshorne and M. A. May, *Studies in Deceit*, (New York, 1928).

⁵H. J. Miller, "The Effectiveness of Teaching Techniques for Reducing Colour Prejudice," *Liberal Education*, XVI (1969), pp. 25-31.

worth pursuing, but I suspect that any progress we make will be more by luck than by good management.

As for the suggestion (p. 18) that intelligence might be raised by suitable drug treatment, I know of no whit of evidence. This is not to say that intelligence is wholly innately determined, but, as I have pointed out elsewhere,⁷ the greatest likelihood of any general improvement would be via gradual percolation to the parents of better methods of child upbringing and intellectual stimulation, especially in the preschool years.

Educational Technology

My criticisms so far might be countered by saying that education as at present provided may be ineffectual, but that education in the future, making full use of educational technology and of a Mode 2 or 3 approach rather than Mode 1 (cf. below), will be far more influential. Psychologists have played a leading part in the development of concrete apparatus for teaching young children by such means as radio and television lessons, programmed learning and computer assisted instruction. All of these clearly have their uses, but in general the follow-up evidence seems to show that they are no more effective than is an average teacher using conventional methods. True, this means that they can often be better than a poor teacher, and situations may well arise where they can make up for shortages of good ones. Despite the present rapid advances in C.A.I., and promising experimental applications, I would question the possibility of widespread usage of such complex technologies during the present decade (pp. 235-60), in view of the enormous costs and the difficulties of maintenance of equipment needed for a whole school system. Further, their main effectiveness seems to lie in training skills and implanting knowledge, and so far at least there is little indication that they can develop general strategies or qualities such as independent, critical thinking.

In connection with post-secondary teaching, the *Report* adopts the fashionable view that the lecture is entirely discredited (though it admits a few minor uses on p. 199). One would agree that the conventional lecture method strikes the present generation of students as unpleasantly authoritarian. But the only reasonable conclusion to be drawn from the masses of research on teaching methods⁸ is that no one method — lecture, seminar, tutorial, programmed, etc. — is consistently superior to any other. Presumably it all depends on what method best suits the particular teacher, the particular student, and the topic, and what criterion of efficacy one adopts.

Another minor point arises in connection with the School Year. While I do not wish to comment on the Report's proposals, I must protest the

⁶C. L. Burt, *The Young Delinquent* (London, 1925).

⁷P. E. Vernon, *Intelligence and Cultural Environment* (London, 1969).

⁸Cf. W. J. McKeachie, "Research on Teaching at the College and University Level," in N. L. Gage, *Handbook of Research on Teaching*, pp. 1118-1172 (Chicago, 1963).

claim that a lot of forgetting results from "extended interruptions in the learning process" (p. 120). William James⁹ in 1890 remarked that we learn to skate in summer and swim in winter. Doubtless this is an exaggeration, but it is still true that valuable consolidation, as well as some easily remedied forgetting, takes place during interruptions.

Modes 1, 2, and 3

For the benefit of those who have not studied the whole Report, a brief definition of these contrasted approaches to school organization and the curriculum may be useful. Mode 1 represents the traditional view where administrators and teachers alone determine what is to be taught, and how the work and the school in general are to be organized. Mode 3 is the opposite in that such decisions are made by the students, while the staff are available for advice or consultation on the pursuit of student learning goals. Mode 2 is intermediate since it advocates a considerable degree of consultation between staff and students on curriculum, method, and the running of the school.

Now the topic of authoritarian vs. permissive approaches in education is an enormous one to try to cover in a short article. However, it seems to be fairly generally agreed that present-day schools are happier places than the more formal ones of the past, due to more child-centered attitudes among teachers and more stress on activity in learning; also that, despite Admiral Rickover's and similar criticisms, all-round standards have not declined.¹⁰ Among many relevant studies, D. E. M. Gardner's¹¹ showed that children in relatively progressive elementary schools reached much the same attainments as those in more old fashioned ones (of comparable social class background), and tended to be superior in some of the study habits and attitudes which the *Worth Report* is now advocating. At the same time she emphasizes that all pupils are actively working towards clear goals, not just doing what they feel like. The famous Lewin, Lippitt and White study¹² illustrates the dangers of *laissez faire*; and a recent very carefully conducted investigation of family upbringing by Coopersmith¹³ brought out that over-permissive handling of boys by their parents led to poorer self-confidence and adjustment than what might be called firm but democratic handling. Many other researchers, and even psycho-analytic writings, might be cited to the same effect. Young children in particular become insecure and anxious in too free an environment; the teacher is the parent substitute who *should* control, and provide a clearly defined structure for their activities, though at the same time they benefit from being treated as responsible human beings with a point of view of

⁹William James, *Principles of Psychology*, (New York, 1890).

¹⁰Cf. L. J. Cronbach, *Educational Psychology* (New York, 1963).

¹¹D. E. M. Gardner, *Long Term Results of Infant School Methods* (London, 1950).

¹²K. Lewin, R. Lippitt and R. K. White, "Patterns of Aggressive Behaviour in Experimentally Created Social Climates," *Journal of Social Psychology*, X (1939), 271-99.

¹³S. Coopersmith, *The Antecedents of Self-Esteem*, (San Francisco, 1967).

their own. Thus, although some child psychologists would doubtless differ, I would have thought that Mode 1 should be strongly predominant in the elementary school, and elements of Mode 2 could be introduced increasingly during adolescence. But psychology cannot be held to justify any application of Mode 3 until, say, graduate or further education is reached.

Regarding the criticism (p. 194) that most teachers like to run their little empires behind closed doors, where no one can see how they operate, it is worth pointing out that school psychologists often come across pupils who are disturbed by, and fail to achieve in, the open-plan school. In other words we should try to allow for individual differences in response to different modes or régimes.

Life Experience

Related to the *Report's* discussion of Modes is its desire to increase 'life experience', e.g., work in the community rather than wholly in the classroom, at all stages (pp. 177-8). I am far more sympathetic to this proposal in so far as the natural way of learning among higher animals and primitive human peoples is in a social and concrete context, not in separate buildings. The child acquires the skills and values of his culture by doing things with his family — house-cleaning, hunting, farming, etc.; and he generally grows up much better adjusted than his modern counterpart who is supposed to learn mainly by being told things.¹⁴ Obviously, though, it is arguable whether the technique which works well in a simple civilization would help to remedy some of the defects of a complex one. Changes in this direction should, of course be accompanied by decreases in the amount expected to be crammed between 6 and 18 years, which fits in with the *Report's* contention that education should continue into adult life (p. 38).

Pre-school Education

Despite the strong advocacy by most child psychologists, as well as by the *Worth Report* (p. 50), of pre-Grade 1 education, I have yet to find any convincing research evidence of its effectiveness.¹⁵ There are some technologically advanced countries where the normal age of entry is not till 7 years. The I.E.A. Report¹⁶ showed such children in Finland to be superior in mathematical achievement at age 13, though those in Sweden were inferior, to children in countries starting at 6. And in England and Scotland where entry is at 5, later achievement was poorer than average. But much more damning evidence comes from the Head Start experiments in America¹⁷, where it was impossible to prove that additional preschool

¹⁴Cf. J. S. Bruner *et al.*, *Studies in Cognitive Growth* (New York, 1966).

¹⁵Cf. G. S. Goodlet, *Effects of Kindergarten Attendance and a System of Non-grading on Measures of Basic Skills and Adjustment*, Ph.D. Thesis, University of Calgary (1971).

¹⁶T. Husen, *op. cit.*

¹⁷American Institute for Research, *Report on Education Research* (Washington D.C. 1971).

education had any lasting effect even on children from deprived environments, whose initial handicaps in first Grade would — it was hoped — have been reduced. True, there were many flaws in most of the published follow-up studies, but it would be difficult to find in them any crumb of support for the Worth recommendations. I am not unsympathetic to the argument that in these days of earlier physical and intellectual growth, and of small families, it is advantageous for some children to gain more social experience before age six. But I would prefer to cater for this by voluntary community groups rather than by expensive schooling for all.

The Handicapped

The *Report* contains a good classification of the physically, mentally, and emotionally handicapped (p. 161). But, apart from the physical categories, it is not possible to diagnose these reliably at 3-4 years (p. 66), and thus to institute useful remediation. Some extraordinary statements about children with learning disabilities are made on pp. 163-4, to the effect that "they are essentially normal, intelligent children" whose deficiency can be corrected. This might be true of a few cases who have missed some stage, e.g., in arithmetic, through absence from or change of school, or through bad teaching. And there are the rare cases known as dyslexics, who may be of normal intelligence, but who are extremely difficult to treat. But the great majority are backward whether from low intelligence, poor background, maladjustment, etc. Most of these can be helped in special classes, centres or clinics, at least temporarily, though many revert in a few years to their original low attainment quotients¹⁸.

Naturally I am in favour of the boost which the *Report* gives to Special Education (pp. 164, 238), but I also realize that this service is so expensive that any considerable expansion implies less provision for the education of the average and exceptionally talented, and extreme difficulty in finding suitable personnel. There is already too strong a tendency for school teachers to think that the Special Education Division exists to take any troublesome or retarded pupil off their hands. Thus I would have thought it more acceptable to the general public, and at least as wise psychologically, to confine treatment by professionals to a small proportion of the most severe cases, and to expect the majority to be handled by hand-picked, or even ordinary, school teachers working under the advice of a psychologist. Better teacher training in small-group work might also help. It is worth remembering that research has not yet been able to prove clearly the effectiveness of child guidance of the maladjusted¹⁹, though it is more positive in the areas of educational and vocational counselling.

¹⁸Cf. K. Lovell, C. Byrne and B. Richardson, "A Further Study of the Educational Progress of Children Who Had Received Remedial Education," *British Journal of Educational Psychology*, XXXIII (1963), pp. 3-9.

¹⁹Cf. E. E. Levitt, H. R. Beiser and R. E. Robertson, "A Follow-Up Evaluation of Cases Treated at a Community Child Guidance Clinic," *American Journal of Orthopsychiatry*, XXIX (1959), pp. 337-49.

Conclusion

In conclusion, I freely admit that different psychologists often speak with different voices on many matters of theory and of practical application. Some highly reputed names are listed among the consultants to the Commission, but there is no indication that they in fact put forward the views that I have been criticizing. It seems unfortunate that fuller recourse was not made to the wide range of psychological expertise in Alberta. The recent Plowden Report on primary education in Britain not only called in numerous psychologists, but instituted extensive researches in an attempt to answer some of the highly contentious psychological problems underlying educational policies.²⁰

²⁰Central Advisory Council for Education (England), *Children and their Primary Schools*, (Plowden Report, London 1967).