

# towards a formulation of educational goals

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THIS ARTICLE EXAMINES some of the dynamics of goal setting in education and considers the inter-relationship of different goal-areas with each other and with styles of approach. The conservative and the teleological functions of education are briefly considered especially as they relate to the problems of African communities.

## Sub-goals in the conservative function

One major aspect of education is to conserve: to maintain and to transmit the accumulated cultural capital of a community. But the profession of education has proved to be extraordinarily resistant to that sort of planning and ordering that many industrial leaders would consider essential for survival. Even if education is considered as an investment area, able economists such as John Vaisey despair of creating sufficiently precise instruments to handle all the unidentified variables.

Education is practised in the belief that one can change human behaviour, and viewed from this point-of-view it constitutes one of the more important sectors of the behavioural sciences. The ultimate goals of education are dictated by human needs, both those that constitute the private sector as well as those of man-in-society. One recognises that this separation of individual from social is convenient from a conceptual point-of-view, rather than a device that reflects reality, but this is a problem that is a paradox in Arthur Maslow's concept of **self-actualisation** (a highly complex and sophisticated need that is implicit in a developed industrial democracy) which can only be realised through organisational membership. We would posit for the moment that no realistic goals can be designed for education unless they contribute to the satisfaction of human needs. The Maslow-Herzenberg hierarchy provides as suitable a **schema** as any.

Educational functions can, as we have not-

ed, be either conservative or teleological, and this is largely a matter of an emphasis that is dictated by the pace of social change: both functions are present at any one moment. Conservative function is concerned with the transmission of existing stock of one's "civilisation", whereas teleological function is concerned with innovative practice, the development of new stock. Ultimately each is justified in so far as it contributes to human survival.

Education has a plurality of goals that reflect the value systems of a particular society — and it is for this reason that education is itself difficult to organise rationally. Broadly speaking, the cultural capital that satisfies civilised needs may be grouped under the headings: knowledge, skills and values. A tri-form analysis of this sort is mentally convenient, though each goal interpenetrates the others.

## 1. Education is concerned with the transmission of knowledge

This axiom is generally received reverently in educational circles because nobody can sensibly deny the need to pass to the new generation the core of cultural wealth accumulated by previous generations. Stress on knowledge (in this rather special 'school-room' sense) influences the whole format of school education, from the platoon of desks in the conventional classroom, to the quantifiable results of the typical **school-leaving** examination, which supposedly offers some public evidence of achievement. There is, however, a growing suspicion among professional educators that the young mind should be regarded as something more than a convenient receptacle for factual litter. Certainly in advanced communities, the value of retention of fact lies in the relationship that can be established between facts, in their classification and in the contribution to problem solving. These considerations imply the conscious integration of education with the higher order



mental processes, such as Piaget seems to have in mind when he speaks of "Formal Operations." To an extent the ordering of simple fact, its comprehension and retention, is demonstrable and easily quantified; and thus it provides a refuge for the pedagogue who wishes to avoid a critical approach to his work. Of course, it is not factual knowledge **in itself** that is suspect, but the validity of its selection and its integration into human thought. There is nothing sacred about knowledge: in fact, in many fields of knowledge the rate of obsolescence is high — as any electronic specialist knows all too well. Reliance on no longer tenable information is mere authoritarianism. Probably the best educational insurance is the development of those human potentials and resources that assist problem solving — if for no other reason than that they are closely associated with survival.

Educational authoritarianism ("it is so, because I say it is so") rests on an assumption of historical validity and implies a stable society; it stresses the survival value of observation and information from previous generations, which in turn dictates both the style and the method of classroom organisation.

Since in its conservative function education is largely concerned with 'materia' in the form of factual content, the transmission of this content may involve a professional fallacy that has been underscored by Rousseau, Piaget and Gattengo among others. We tend increasingly to regard the teacher as a professional person whose skill is deployed in managing situations so that the pupil learns. The pupil is expected to rely on his own senses and perceptions, and is helped by the teacher to order them, to classify, generalise and proceed to higher order activities. The old type teacher of (shall we say) primary school science, demonstrated a small experiment, drew conclusions, and left the pupils to note and memorise. The fallacy here was **the intrusion of the teacher between the pupil and the learning experience**. This fallacy still vitiates a great deal of modern education. It promotes the closed system of education, which implies in effect that teachers create a symbolic mental system that is unrelated to experience — in much the same manner that one could use dazzling tech-

niques of instruction in a classroom to teach a person about driving a car, and then find that after passing the final class test with high marks, he couldn't **actually** drive. Involved here is not so much the overstress of content, as the understress of process. We would contend that where any learner has to rely almost exclusively on the mediation of another person's experience, the result is a mental crippling.

We do **not** transmit from one generation the **complete** or total resources of the previous generation. The glut of knowledge in the modern world is so staggering that only a very small fraction of the corpus of contemporary content can be passed on. It is widely accepted that the total stock of human knowledge up to 1960 (a date chosen arbitrarily) doubled itself in the following decade. Every book, every syllabus, every lesson represents **selection**, a sifting through the minds of individuals and committees — and hence is part of contemporary truth.

Selection raises the very important questions of **WHAT** shall be taught, and educational planners are perennially concerned with arrangements of content so as to update its relevance. But if we accept human needs as essential criteria for our goal setting, we find another problem: **WHY** should it be taught at all? For just as selection is essential if one is to achieve coherence, so is the **ordering of goals** into a **system of priority** — again, a procedure that ultimately rests on value systems and human preferences, that express needs. Asking the question **WHY** immediately involves validation in terms of the satisfaction of needs.

#### **Education is concerned with the development of skills**

One most easily accepts the needs to develop skills when one considers those involved in physical and technical education. However, one should not lose sight of the fact that the ability to handle log. tables or a slide rule involves complex skills that are learned. The handling of a microtome or a microscope involves skills, as does typewriting, 'driving' a computer or piloting a jet plane. Surgical skills require lengthy and sophisticated development.

Skills, like factual knowledge, have value



that lose relevance soon disappear. In a couple of generation we may lose skills used in the craft of cooperating. Traditionally formal education is not concerned with special vocational skills, and in this sense it has a 'liberal' intention. But much more serious than the so called "generation gap", is the gap between educational practice and social need — the failure of formal education to in so far as they have life relevance. Skills include skills already pertinent to living. For example, there are the so-called 'communicative skills' — a useful term that embraces mother-tongue speech, but which involves beyond that the non-verbal communication system. Despite the nominal modernisation of some curricula, the formal study of communications remains a neglected and undeveloped area of education, and one that is often re-interred under some disguised form of 18th century grammar. Since the manifest breakdown of communications at almost every level of adult activity bedevils our times and costs industry alone a multi-million rand wastage bill every year, it is time we revised our objectives. Of course, communication studies is not the only area of neglect. There is considerable apathy towards tackling skills of interpersonal relationship. Industry has encouraged research into this area, and much useful information has been ploughed back into industrial education and management practice. The significance of skills of this sort in the health of the family, in the effective function of staff and team, in the maintenance of multinational cooperation is obvious enough to warrant the re-examination of our formal education.

### **Education is concerned with the inculcation of values**

Or, if you disagree with such values, it is called propaganda. It is the concern with values that differentiates formal from informal education and again raises the problem as to HOW human beings learn. Formal education assumes a conscious and intentional process that achieves its ultimate logic in approaches such as Skinner's linear programming. But other institutions play a part in education, especially in **informal** education; and one thinks of the home, the media, the neighbourhood and the churches among others. Values express themselves not only

in religious upbringing, but in secular morality, in codes of politeness, concepts of patriotism and in what is euphemistically called "good taste". Seldom formalised (as they were, with hilarious effect for present-day readers, by 19th century authors of books for "finishing schools") values are more effectively transmitted by identification and imitation than by exhortation. They are learned "unawares."

Few of us are conscious of learning our own particular "accent" — which is very obvious to an Australian or to a Canadian. Few of us recall intentionally learning those mannerisms which are as individual as a fingerprint. In fact, we were subjected to a largely unconscious process, not easily accessible to a rational analysis or scientific study. But we do know that value systems pattern and help to determine perception. For instance, a violent anti-semitic will perceive differently from other bystanders a fight between a Jew and a non-Jew. Value systems, with their complex integration with emotions, not only distort perception, but can account for the denial of reality. They are thus associated with willingness or unwillingness to learn. One sees this factor operating in the relationship between expectations and achievement in—say—slum children. Parental attitudes in respect of education are often negative and the expectations of their children are low: and as Riesman has shown in a number of brilliant studies, irrespective of intellect, they constitute a large part of high school dropout. In fact, each of us operates within boundary limits imposed on us by our acquired value system — though we may not realise the extent to which they contain us. These systems act as pre-determiners from which escape is all but impossible.

Because teachers to a large extent share the community of their pupils, the schools reinforce the value systems established by community life. But when the teacher comes from a different type of community from that of pupils, a number of problems of incompatible value systems and expectations arise — as, indeed they did in the New York system when Negro parents expressed dissatisfaction, on this score, with Jewish teachers. Certainly a shared value system helps to understrut the psychological security of a community.



The conservative function of society, which is expressed in this triad of goal-areas increases in significance during periods of social stability. Margaret Mead has described such socially stable times as productive of a **post-figurative** culture. She contends that because of the slowness of change, the past remains largely valid for the present. But when, because of social upheaval or of technological innovation, past experience no longer holds for the present, we move into a co-figurative culture, which necessitates the discovery of new criteria and attitudes for survival. There is some disparity of evidence as to whether or not we are passing through a co-figurative period of culture in the 1970s: many believe that we are. Probably at any moment of recent history both post-figurative and co-figurative elements were present in our social patterns. Of course social change implies more than moon probes and nuclear war: change effects the configuration of the family, contemporary attitudes towards morality, the expression of the zeitgeist in literature and art. Man is beginning to ask whether, apart from being the creature of change, he might not be able to induce change through his educational systems, which after all was the whole basis of the American approach to the education of the children of the Inner Cities. One tends to forget how new the concept of public education (let alone compulsory and obligatory education) actually is. It is only within the past hundred years that Europe decided to follow the lead given by 18th century Prussia and remove education from the private sector. In Britain today education constitutes the third largest national enterprise, requiring in 1969 some £2 200m, or 6% of the G.N.P.

The growth of educational investment has forced statesmen and educators to seek some way of assessing this increasingly costly enterprise, even if only to comply with public accounting. Concern with the more easily quantifiable outputs of education in its turn, has promoted an over-emphasis on what can be observed and what can be tested in performance. All of which brings us full circle to the current stress on factual content or "knowledge", as measured by retention. But the belief that one can strike some sort of balance sheet is allied to the idea that one ought to be able to control the output of the

educational product to some extent as well. This line of thought has been further supported by the contention that there is a causal relationship between the amount of education in a community, and the economic growth in that community.

In effect, there is much persuasive evidence that a relationship of this sort **does** exist, but little that one would admit as conclusive. We are left wondering whether the relationship is in fact causal or whether it may not be concomitant. But this problem aside, the real concern before educators is whether education should be deliberately geared to economic production as a priority goal. Since the ultimate product of human education is human behaviour of some sort or other, have we today such control over the process of education that we can now **determine the end product** by planning the input and the subsequent educational environment? If we should agree that this is **possible**, should economic productivity be our top goal?

Encouraged by pioneering work by Soviet educational economists such as S. G. Strumilin in the 1930s a whole generation of planners tried to blue-print the future economic development of communities and to relate this causally to educational input. T. W. Schultz of Chicago produced impressive arguments to show that the extraordinary economic upsurge in the United States was related to the growth of education. He maintained that this relationship was causal. The acquisition of skills and knowledge, he maintains, is a form of capital, a deliberate investment that has grown in Western Countries and has become the most distinctive feature of the economic system. Measured by what labour contributes to output, the productive capacity of human beings is now vastly larger than all other forms of wealth taken together. In this thinking he was supported not only by the work of Denison, but by thinking by Hovatt who maintained that knowledge and skill were a critical investment variable in determining the rate of economic growth. With the extension of educational facilities in America, the real costs of education have grown from 400 million dollars in 1900 to 28.7 billion dollars just after the beginning of the second half of the century. T. W. Schultz estimates that the stock of education in the labour force rose about 8½ times during that period. The



return on such investment, he maintains is at least as good as that on nonhuman capital. Hanoch for instance in 1965 was able to show that rate of return on investment of 4 college years, raising the total time in formal education from 12 years to 16 years, was 2,5 ten years after the age of 20, 7,5 15 years afterwards, and over the whole life period, 11,5 — a very reasonable return.

If one concurs in this approach, educational goals can have economic significance, and the teaching of skills that carry a high rate of return may prove attractive both for the individual and for the community. It does however raise the problem of whether, once one has identified a plurality of needs that education can satisfy, there may not be a hierarchy at work as well. In such a hierarchy, should economic growth be a first priority? Whether it should be or shouldn't be may well depend on public and private value systems in a particular community, but in fact the public choice in a majority of newly emerged African states would seem to be for economic advance, in the belief that if they handle their educational systems correctly they can thus promote development. Related to the concept of causal relationship between education and economy is the concept of manpower planning, which intends a blueprint for the future by which the human and cognitive input of schools can be regulated. The somewhat naive acceptance of this elaborate theorisation has undergone much rethinking since John Vaizey to a large extent defected from his own theory. The noted Nigerian educational economist, Dr. S. N. Nwosu, for instance, whilst approaching the cost-benefit theory more cautiously, remains convinced that one can expect no adequate growth without an adequate system of education. He tempers, but does not break from, the concepts developed by Harbison, which did so much to rationalise Nigerian education in the 1950s — concepts developed from earlier models of Strumilin and Schultz. To what extent Strumilin's 1930 figures would stand up to modern examination is another matter, but he maintained that the profitability to the State of its educational investment exceeded 125% in the three decades following that investment. The temptation to African statesmen concerned with educational planning to adapt such heady thinking to

their own conditions is quite understandable. It assumes that what the countries of Western Europe did in moving into an industrial civilisation can be done by African countries — and possibly all the better because they have the privilege of hindsight. The United Nations, trying to lay down guidelines for general development in Africa, suggested a realistic growth rate of gross product of 5% p.a. by 1969. Without such a growth rate, there was unlikely to be sufficient savings to fund the provision of infrastructures, education and essential governmental services. 22% of the continental population had a fall-off rather than a growth in their economies. The growth rate in 72% of the population, although positive was quite inadequate at less than 2%.

Using Simon Kuznet's formulations, James Picket has analysed the **per capita** production level of now-industrial countries as three hundred dollars at 1966 prices. For instance, the **per capita** production in Britain just before the Industrial Revolution was to move from \$300 to the post-Industrial Revolution 1960s, when it stood at \$1 908. Growth in the United States at the same date had reached \$3 839 p.c., whilst the Soviet's figures at the same date were \$989. If therefore this production level (\$300) is the launch-off to rapid industrial expansion, then it should be applicable for any developing country. For example, Canada began her expansion from a primarily agricultural economy in 1870. The estimated p.c. product level was \$467. The point is that many African countries are attempting the same task at a p.c. level less than 20% of Canada's 1870 figure. Picket points out that the product p.c. of all African countries (with the exception of 10) was **under** \$200, and for 18 countries is was under \$100.

We now arrive at the point where the earlier discussion of educational goals has relevance to our outgoing thinking. Entry into a modern industrial-type economy entails not only material infrastructure, the presence of natural resources and the development of appropriate human skills, but appropriate value systems as well. For instance, one must value private ownership of goods, competitive economic behaviour, the production of surplus with resultant possibilities of saving, and possibly — underlying all that — one must approve of the idea of **work** as a **desirable acti-**



**vity.** Although these are values which are held by most members of Western Industrial democracies, they are frequently inimical to African thought. It was not until 1736 that the British parliament decided to remove Witchcraft from the Statute Book — a moment in history that approximately marks the beginning of British movement into an Industrial society. Is it possible to expect formal education in Africa to convert a population with an animistic view of the universe into one that has the sort of empirical approach demanded for living in the carpentered universe of our times? Education is by no means limited to the schools, and much of the inner world view that determines the psychic quality of communities and civilisations, grows from the unconscious matrix of home and peer group and has been laid down **long before** an attempt is made to introduce the basic concepts of modern science. The well-organised and extremely complex thought systems that underly African beliefs in magic present a pattern of universe just as convincing to the African child as anything envisaged by Newton and his successors. But the animistic approach to a considerable extent vitiates the very basis of scientific and technological method: concern with sense-perception data in an empirical setting. In the short compass of this article one can do little more than underline a problem that African educators will need to examine — and, one hopes, resolve.

We noticed a moment ago a value system that supports the obvious materialism of Western Industrial communities. This value system includes private ownership, competition, commercial aggression and individualism. In fact British entry into the modern age really began with an agrarian revolution, which was the forerunner of the Industrial Revolution.

The manorial system which was part of the medieval world, had many facets that were comparable with those that could be identified in an African community. The lord of the manor bore certain resemblances to the local African chief, and the distribution of land in the open field strip system which Lipson has described so well, involved a tenure of **usu fructu** rather than of permanent ownership. This was a period when the **extended** family functioned reasonably well, and there

is evidence that not until some time after the Black Death does one find the widespread occurrence of the **nuclear** family, which is the modern format. But there can be little doubt that the villeins and other small farmers of the manorial system were not inclined to adventure into new methods for fear of upsetting a farming and social system that demanded consensus rather than competition. To improve land that you might not use next year was also silly, so it remained until the 18th century, when private ownership of agricultural land and the practice of enclosures had made control easier, for agriculture to start applying any modern methods. The result, of course, as people like Turnbull and Townshend were able to demonstrate, was a startling rise in productivity. And this was operating just when the most conservative farmer was beginning to doubt the efficacy of treating **mastitis** by ducking some ancient woman suspected of having the evil eye.

The problem of moving from one type of society into another involves, we are asserting, more than the transmission of knowledge and neat packets of factual content. It involves value systems, attitudes and psychic patternings that not only understrut civilisations, but which provide the matrix from which personality is evolved. Not nearly enough attention has been paid to this problem in African education. There is still a deep resistance, for instance, to certain essential requirements that much be accepted if agriculture is to be made productive and integrated, firstly into a local cash market and later into a fullscale market economy. The long tradition of the communal holding of land among the majority of African communities mitigates against improvement by individual tenants. Basutu, for instance, ask: "Why fence to make another man secure, or plant a tree that another man may enjoy?" Socially such activity would show a type of individualism that is not approved of by many Africans, and in theory at least a chief can move any headman to a new holding. At the same time, the sort of over-production that is so essential a part of Western economy, is foreign to African thought. In a subsistence economy one produces — if one is fortunate — enough to satisfy oneself and one's people for the moment. There is some possibility of bartering excess, but with immense problems of stor-



age (not dissimilar to those of 12th century Europe) excess is often waste. Successfully to enter a Western-type economy is to adopt a revolutionary change of attitude. Not only must the community accept some sort of money system, but one must produce for money, which can then be used to satisfy other needs in other markets. And once one has accepted the system, one accepts what appears to be a never-ending vista of new needs. Work then becomes an end in itself as well as a means: one moves from economic production as a part-time activity to a new situation in which it absorbs much of one's energies. Many Africans, still looking

at the proposition ingenuously, wonder whether they or the system get the best of the deal. It is not only a matter of whether Africans will accept the value systems of Western economic thinking, but whether their educators can overcome the deep resistance that exists to this alien system. For all the similarity between modern Japan and the United States as far as economic productivity is concerned, American businessmen found that certain American concepts of good management ran so counter to deeply entrenched value systems in Japanese life, that no amount of persuasion or pressure could effectively change them.

## book review

BRIAN ROSE



### CURRICULUM ORGANISATION AND DESIGN

Ed. Jack Walton. Ward Lock Educational.

Quite a number of books have appeared on curriculum design, and — especially in the United Kingdom — concern with curriculum seems to be one of the dominant trends of the moment. The present book is based on a curriculum conference held at Exeter University Institute of Education and considers strategies of change, management and innovation in education and contains quite a good deal on the use of small groups as the working units of organisation in the new curriculum approach.

The idea of this conference was to get away from the chalk and talk, from the authoritarian teacher, and to try to create in the classroom groups of highly motivated pupils actively taking part in learning. There had been several pilot schemes in which a group of schools attempted innovative practices, and Dr. Shipman describes the gradual breakdown of one that he was interested in. Examining causes of failure, he attributes the main cause to ultraconservative professionalism. Then, when students doing practice teaching went into the schools and attempted to put into practice their new ideas, they came up against high school pupil resentment. Says Shipman: "The naïveté of the author was most evident in failure to obtain active support from the local authorities. In the schools individual teachers were constrained by the opinions of their colleagues. Schools were unable to cooperate with one another." Change, he reflects, is the same in schools as in any other large scale organisations — hospitals or factories — and needs to be managed in detail if it is to succeed.

Despite one or two rather ingenuous assertions, the contribution by psychiatrist David Sime, entitled "Factors in group dynamics with applications that may be relevant to the teaching of children in small groups," is one of the best introductions to small group thinking to appear recently, and I would certainly commend it to anyone who is beginning to wonder what this "small group talk is all about". Dr. Sime links the satisfaction a pupil experiences in small groups with self-esteem — which acts as a very considerable reinforcer of learning, and hence as a secondary motivator. But of course, there may be an even more important link of self-esteem with what Maslow called "self actualisation" — which suggests the idea of realising one's potential, of growing and developing; and if the small group can contribute to this goal, it is of major significance. Dr. Sime points out that to handle groups properly requires not only a certain teacher talent, but that training is essential. He feels that many teachers take easily to group techniques of handling classes too large to allow interpersonal interaction. Given a reasonable *caritas* of personality, the teacher will be able to support those pupils who find themselves anxious in the less structured organisation of a grouped class. He compares the teacher who is managing a number of groups to a master chess player who moves from one game to another. But his comment that it might be necessary to discourage leadership in pupil groups shows a surprising lack of insight about the emergent leader — and about the essential nature of the teacher's "management" techniques.

All these writers seem to operate at the level of theory **assertion**: what teachers need as the logical next step are working patterns of handling and day-by-day management. For all that, in small compass, a stimulating book.