Tricky progress

Education is a simple word used in all sorts of circumstances, but if we attempt to define it and plan it we face a host of difficulties. Politicians are glib enough, with their "education, education, education" held up as a major requirements, but when it comes to implementing measures to achieve a better education for our children we discover little agreement among their ranks. Recent scandals over the marking of examination papers have revealed that statistics are more highly regarded than genuine intellectual acquisitions. Indeed, instead of assessing a child's progress by the overall analysis of work undertaken in school and at home and, as a final step, performance in a formalised examination, the education authorities are content to rely upon the answers given to questions drawn up by some remote examiner, irrespective of what has gone on before, while following a course.

The fundamental meaning of education is the drawing out of an individual's potential ability, not ramming in arbitrary facts and principles. Indeed, one definition of "educate" is "to bring up young persons from childhood so as to form their habits, manners, intellectual and physical aptitudes". This bears some relation to the ramming-in process. A better definition might be "to train someone so as to develop the intellectual and moral powers generally". Both definitions appear in the Oxford English Dictionary, indicating a degree of confusion over what we intend to do through education.

It cannot be denied that the inculcation of literacy and numeracy is essential for communication between humans. It is what follows that adds anxiety. Teaching children the nature of society and preventing evil habits of thought and action early in life must be a prime consideration.

John Henry Newman advocated an ideal which was the development of the capacity to see all things in relation to one another. This demands a holistic approach and condemns the piecemeal specialisation that is the bane of modern studies. Mary Midgley observes in her 'Science and poetry' (2001): "Only gradually is it beginning to emerge that ecology is actually a more important science than economics — that the profitable exchange of goods within the ship is a less urgent matter than how to keep the whole ship above water."

We have to recognise, and the sooner the better, that we need to differentiate between technical education, which may enable a person to pursue a career, and personal education, which is essential to the welfare of the individual and society at large. Obviously there is a need for specialisation in those disciplines that go towards making a profession, but it must never be allowed to blind us to the wider issues of interlocking that profession with others pursuing related paths, in order that society shall benefit from it. Issues of morality and ethics must be faced, otherwise we shall merely contribute towards the great amoral global consumer society where the glowing goal is profit first and compassion nowhere. Considerations of this kind should be taken into account as we proceed to finalise details of any continuing professional development programme that will render us more reliable and efficient and, it is hoped, bring added prestige to our profession.

Research and security

A difficult situation has arisen in which the long traditional openness accorded to biomedical research findings has come up against the demands of national security. Emphasis is being placed on the potential for misuse of data by organisations that observe no ethical code and recognise no universal social responsibility. In 1982, in the United States, the National Academy of Sciences reported that the open pursuit of scientific knowledge was likely to achieve greater security than would be the curtailing of free exchange of information. A discussion by Dr Ronald M. Atlas of the University of Louisville, published in *Science* for 25 October shows clearly that critics from various institutions and government departments can no longer agree over the issue.

Atlas explains that arguments over scientific communications and national security are not new. In fact Francis Bacon in 'The new Atlantis' of 1626 concluded that there might be times when secrecy in respect of scientific discoveries might be appropriate. In modern times it is claimed that there is a link between free exchange of ideas, scientific innovations, material prosperity and state security that cannot be denied. The problem is that research deals sometimes with methods and agents of mass destruction, and if it reaches the wrong hands this might be used antisocially. How to ensure ethical responsibility within the research community becomes important. The American Society for Microbiology has established principles for reviewing manuscripts to determine whether an article might pose a threat if misused. The editors have not yet rejected a paper for security reasons, although withdrawal has been decided independently by a few authors.

It is agreed that limiting information exchange could slow the discovery of vaccines and drugs useful for combating infectious diseases, including those needed in the defence against terrorism. It is almost impossible to determine precisely what constitutes sensitive information and who should decide what is potentially dangerous. It is time to thrash out within the scientific community what rules for information provision should be established in the age of terrorism.

Price of indulgence

I was intrigued to see a survey of the accident pattern among adults under 35 who had celebrated with a night out, associated as we might expect, with unwise consumption of alcohol.

In one month alone, 41 per cent of individuals aged 18 to 35 suffered minor injuries, either through falling down or walking into an obstacle, during a night out in town. Of these, 39 per cent could not always remember how they had injured themselves.

Reasons offered for injuries included excessive alcohol consumption (33 per cent) sheer clumsiness (33 per cent), friendly fighting (16 per cent) and over-exertion on the dance floor (12 per cent). Logically enough, knees took the major brunt of the accident, followed by elbows and then thighs. In other words, it is the things that stick out that have to take the strain.

To judge from demands for first aid from pharmacies, more minor accidents are associated with wetter and darker periods than with drier and lighter ones. Plasters, first-aid dressings and antiseptics make up the bulk of the demands.

What is interesting is the distribution of the victims. Residents in the south-west of the country admitted to the worst blackouts. Of those who fell or encountered obstacles, more resided in the north-east, south-east, south-west, Scotland or London than elsewhere, and the figure for Wales was uncommonly low. Perhaps there is a lesson to be drawn from the differences.

It has been suggested that pharmacists who value their role in providing first aid materials might learn from such surveys and plan their stock accordingly. At the same time, they might well offer sensible advice on injury prevention to those of their clients who come to them for help.