Readings

Unit Eight

Haralambos, M., M. Holborn and R. Heald. 2004. Education. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 690–691.

Introduction

In its broadest sense, education is simply one aspect of socialization: it involves the acquisition of knowledge and the learning of skills. Whether intentionally or unintentionally, education often also helps to shape beliefs and moral values.

In small-scale non-literate societies, such as hunting and gathering bands, education was hard to distinguish from other aspects of life. Young people learned their 'lessons' largely by joining in the social group. Knowledge and skills were usually learned informally by imitating examples provided by adults. Although adults sometimes instructed their young, they did 50 as part of their daily routine. Thus boys accompanied their fathers on hunting trips, while girls assisted their mothers with cooking and gathering vegetables.

In more complex pre-industrial societies, such as those of medieval Europe, specialized educational institutions slowly developed, along with the specialized role of the teacher. However, such developments provided formal education for only a small minority of the population, such as future members of the clergy and the sons of the wealthy. Formal education for the masses was not provided until industrialization was well underway.

The expansion of British education

In Britain, free compulsory education conducted in formal institutions staffed by full-time professionals began in 1870. Although the state had contributed to the provision of education as early as 1833, only with Forster's Education Act of 1870 did it assume full responsibility. In 1880 school attendance was made compulsory up to the age of 10. With the Fisher Education Act of 1918 the state became responsible for secondary education, and attendance was made compulsory up to the age of 14. The school-leaving age was raised to 15 in 1947, and to 16 in 1972.

The raising of the school-leaving age was obviously accompanied by an expansion of schooling. For most of the twentieth century, though, education also expanded as a result of people continuing in education after the compulsory period of attendance, or returning to education later in life. In 1900 only 1.2 per cent of 18-year-olds entered full-time further or higher education; by 1938 the figure had reached 5.8 per cent.

However, the first explosion of post-compulsory education came in the 1950s, 1960s and early 1970s. The Robbins Report of 1963 established me principle that all those capable of benefiting from higher education should be entitled to it. New universities were built, polytechnics were established, and The Open University gave adults fresh educational opportunities. Children of school-leaving age were encouraged to stay on in school sixth forms, or to attend college. By 2001 over half of 16-18-year-olds were in full-time education in England and more than three out of four were in education or training.

The growth in higher education slow down in the lace 1970s and early 1980s, but rapid growth resumed in the lace 1980s and early 1990s. Most existing universities expanded, as did the polytechnics, which were given university Status in 1993.

By 2001–2 government spending on education had risen to the vast sum of £39 billion in the UK, more than 11 per cent of all government expenditure (http://www.number-10.gov.uk/ output/page224.asp).

Haralambos, M., M. Holborn and R. Heald. 2004. Education–A Functionalist Perspective. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 692–694.

Emile Durkheim – Education and Social Solidarity

Writing at the turn of the last century, the French sociologist Emile Durkheim saw the major function of education as the transmission of society's norms and values. He maintained:

> Society can survive only if there exists among its members a sufficient degree of homogeneity; education perpetuates and reinforces this homogeneity by fixing in the child from the beginning the essential similarities which collective life demands.
>
> Durkheim,1961

Without these 'essential similarities', cooperation, social solidarity, and therefore social life itself would be impossible. A vital task for all societies is the welding of a mass of individuals into a united whole – in other words, the creation of social solidarity. This involves a commitment to society, a sense of belonging, and a feeling that the social unit is more important than the individual. Durkheim argued: 'To become attached to society, the child must feel in it something that is real, alive and powerful, which dominates the person and to which he also owes the best part of himself.'

Education, and in particular the teaching of history, provides this link between the individual and society. If the history of their society is brought alive to children, they will come to see that they are part of something larger than themselves: they will develop a sense of commitment to the social group.

Education and social rules

Durkheim argued that, in complex industrial societies, the school serves a function which cannot be provided either by the family or the peer group. Membership of the family is based on kinship relationships; membership of the peer group on personal choice. Membership of society as a whole is based on neither of these principles.

Individuals must learn to cooperate with those who are neither their kin nor their friends. The school provides a context where these skills can be learned. As such, it is society in miniature, a model of the social system. In school, the child must interact with other members of the school community in terms of a fixed set of rules. This experience prepares him or her for interacting with members of society as a whole in terms of society's rules.

Durkheim believed school rules should be strictly enforced. Punishments should reflect the seriousness of the damage done to the social group by the offence, and it should be made clear to transgressors why they were being punished. In this way, pupils would come to learn that it was wrong to act against the interests of the social group as a whole. They would learn to exercise self-discipline, not just because they wanted to avoid punishment, but also because they would come to see that misbehaviour damaged society as a whole. Science, and particularly social sciences like sociology, would help the child to understand the rational basis on which society was organized. Durkheim stated:

> It is by respecting the school rules that the child learns to respect rules in general, that he develops the habit of self-control and restraint simply because he should control and restrain himself. It is a first initiation into the austerity duty. Serious life has now begun. Durkheim. 1961

Education and the division of labour

Finally, Durkheim argued that education teaches individuals specific skills necessary for their future occupations. This function is particularly important in industrial society with its increasingly complex and specialized division of labour.

The relatively unspecialized division of labour in pre-industrial society meant that occupational skills could usually be passed on from parents to children without the need for formal education. In industrial society, social solidarity is based largely on the interdependence of specialized skills – for example, the manufacture of a single product requires the combination of a variety of specialists. This necessity for combination produces cooperation and social solidarity.

Thus schools transmit both general values, which provide the 'necessary homogeneity for social survival', and specific skills, which provide the 'necessary diversity for social cooperation'. Industrial society is thus united by value consensus and a specialized division of labour whereby specialists combine to produce goods and services.

Criticisms of Durkheim

Durkheim's views on education are open to a number of criticisms.

1. Durkheim assumes societies have a shared culture which can be transmitted through the education system. Countries such as Britain are now multicultural and it is therefore debatable whether there is a single culture on which schools could base their curriculum.

2. Marxists argue that educational institutions tend to transmit a dominant culture which serves the interests of the ruling class rather than those of society as a whole (see pp. 698–706).

3. In recent decades both New Right and New Labour perspectives on education have tended to emphasize the economic importance of education and have downplayed the significance of transmitting a shared culture ...

4. Some researchers question whether in practice schools do act in the way that Durkheim describes. On the basis of a study of comprehensive schools, David Hargreaves (1982) argues chat education in modern Britain often fails to transmit shared values, promote self-discipline, or cement social solidarity. Hargreaves believes that in reality British education emphasizes individual competition through the exam system, rather than encouraging social solidarity.

Although Durkheim and Hargreaves both criticize education based upon individual competition in an exam system, other functionalists see competition as a vital aspect of modern education (a view also supported by New Right perspectives; see p. 712). We will now examine their views.

Talcott Parsons – Education and Universalistic Values

The American sociologist Talcott Parsons (1961) outlined what has become the accepted functionalist view of education. Writing in the late 1950s. Parsons argued that, after primary socialization within the family, the school takes over as the focal socializing agency: school acts as a bridge between the family and society as a whole, preparing children for their adult role.

Within the family, the child is judged and treated largely in terms of particularistic standards. Parents treat the child as their particular child rather than judging her or him in terms of standards or yardsticks that can be applied to every individual. However, in the wider society the individual is treated and judged in terms of universalistic standards, which are applied to all members, regardless of their kinship ties.

Within the family, the child's status is ascribed: it is fixed by birth. However, in advanced industrial society, status in adult life is largely achieved; for example,

individuals achieve their occupational status. Thus the child must move from the particularistic standards and ascribed status of the family to the universalistic standards and achieved status of adult society.

The school prepares young people for this transition. It establishes universalistic standards. In terms of which all pupils achieve their status. Their conduct is assessed against the yardstick of the school rules; their achievement is measured by performance in examinations. The same standards are applied to all students regardless of ascribed characteristics such as sex, race, family background or class or origin. Schools operate on meritocratic principles: status is achieved on the basis of merit (or worth)

Like Durkheim, parsons argued that the school represents society in miniature. Modern industrial society is increasingly based on achievement rather than ascription, on universalistic rather than particularistic standards, on meritocratic principles which apply to all its members. By reflecting the operation of society as a whole, the school prepares young people for their adult roles.

Education and value consensus

As part of this process, schools socialize young people into the basic values of society. Parsons, like many functionalists, maintained that value consensus is essential for society to operate effectively. In American society, schools instil two major values:

1. the value of achievement
2. the value of equality of opportunity

By encouraging students to strive or high levels of academic attainment, and by rewarding those who succeed, schools foster the value of achievement itself. By placing individuals in the same situation in the classroom and so allowing them to compete on equal terms in examinations, schools foster the value of equality of opportunity.

These values have important functions in society as a whole. Advanced industrial society requires a highly motivated. achievement-oriented workforce. This necessitates differential reward for differential achievement, a principle which has been established in schools. Both the winners (the high achievers) and the losers (the low achievers) will see the stem as just and fair, siince status is achieved in a situation where all have an equal chance. Again, the principles that operate in the wider society are mirrored by those of the school.

Education and selection

Finally, Parsons saw the educational system as an important mechanism for the selection of individuals for their future role in society. In his words, it 'functions to allocate these human resources within the role-structure of adult society', thus schools, by testing and evaluating students, match their talents, skills and capacities to the jobs for which they are best suited. The school is therefore seen as the major mechanism for role allocation.

Criticisms of Parsons

Like Durkheim, Parsons fails to give adequate consideration to the possibility that the values transmitted by the educational system may be those of a ruling minority rather than of society as a whole. His view that schools operate on meritocratic principles is open to question - a point which we will examine in detail in later sections.

Kingsley Davis and Wilbert E. Moore – Education and Role Allocation

Like Parsons, Davis and Moore (1967, first published 1945) saw education as a means of role allocation, but they linked the educational system more directly with the system of social stratification. As outlined in Chapter 1, Davis and Moore see social stratification as a mechanism for ensuring that the most talented and able members of society are allocated to those

positions that are functionally most important for society. High rewards, which act as incentives, are attached to those positions. This means, in theory, that all will compete for them and the most talented will win through.

The education system is an important part of this process. In Davis's words, it is the 'proving ground for ability and hence the selective agency for placing people in different statuses according to their capabilities'. Thus the education system sifts, sorts and grades individuals in terms of their talents and abilities. It rewards the most talented with high qualifications, which in turn provide entry to those occupations that are functionally most important to society.

Criticisms of Davis and Moore

General criticisms of Davis and Moore's theory have been examined in Chapter 1 (see pp. 5–6). With respect to the relationship between education and social stratification, there are a number of are specific criticisms:

1. The relationship between academic credentials and occupational reward is not particularly close. In particular, income is only weakly linked to educational attainment.

2. There is considerable doubt about the proposition that the educational system grades people in terms of ability. In particular, it has bee argued that intelligence has little effect upon educational attainment.

3. There is considerable evidence to suggest that the influence of social stratification largely prevents the educational system from efficiently grading individuals in terms of ability.

We will consider these points in detail later.

Haralambos, M., M. Holborn and R. Heald. 2004. Education–Conflict Perspectives. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 698–701.

Marxist criticisms

Birmingham University's Centre for Contemporary Cultural Studies (CCCS, 1981) has developed a comprehensive critique of social democratic policies from a Marxist point of view. According to its analysis, social democracy has contradictory aims: it is not possible to pursue equality of opportunity and equality at the same time. This is because equality of opportunity inevitably means that some will be more successful than others.

In the Centre's view, even the Labour Party has done no more than pay lip-service to the idea of equality. Changes such as the introduction of comprehensive schools gave the impression of giving greater opportunities to the working class without really doing so. Labour governments were attempting to promote social cohesion rather than trying to transform society.

The writers from the Centre claim that many of the changes in education in recent decades have been designed to benefit the capitalist economy at the expense of the working class. They would have much preferred the working class to have greater control over its own education. They argue that in the nineteenth and early twentieth centuries there was a close relationship between working-class education and radical political movements. Chartists and early feminists such as the suffragettes used education to promote awareness among the working class and women of injustice in society. They encouraged political agitation and attempts to improve society. State education, on the other hand, has done as little to promote class or gender consciousness as it has done to promote equality.

Given the number and strength of criticisms levelled at social democratic perspectives, it was not surprising that new perspectives on education were developed. In terms of British politics, the main challenge to social democracy came from the Conservative Party. In terms of sociology, conflict theorists (and particularly Marxists) argued that education played a very different role in society from that suggested by functionalists, liberals and social democrats.

All the perspectives on education that we have examined so far have assumed that education either does or could function for the benefit of society as a whole. Liberal and social democratic views accept that there are limitations to the existing education system, but they specify the ways in which it could be altered and improved.

Conflict perspectives on education, in contrast, are based upon the view that groups within existing societies have fundamentally different interests. Thus, however education is organized in contemporary societies, some people will benefit from it more than others. This does not mean that conflict sociologists deny that education could be improved, but it does mean that many of them believe that significant improvements can only be achieved if they are accompanied by wider social changes.

Samuel Bowles and Herbert Gintis – Schooling in capitalist America

The American economists and sociologists Bowles and Gintis (1976) argue that the major role of education in Ccpitalist societies is the reproduction of labour power. In particular, they maintain that there is 'close "correspondence" between the social relationships which govern personal interaction in the work place and the social relationships of the education system'. According to Bowles and Gintis, this correspondence principle provides the key to understanding the workings of the education system. Work casts a 'long shadow' over the education system: education is subservient to the needs of

those who control the workforce – the owners of the means of production.

The hidden curriculum

The first major way in which education functions is to provide capitalists with a workforce which has the personality, attitudes and values that are most useful to them. Like Marx, Bowles and Gintis regard work in capitalist societies as both exploitative and alienating; yet, if capitalism is to succeed, it requires a hardworking, docile. obedient and highly motivated workforce, which is too divided and fragmented to challenge the authority of management.

The education system helps to achieve these objectives largely through the hidden curriculum. It is not the content of lessons and the examinations that pupils take which are important, but the form that teaching and learning take and the way that schools are organized. The hidden curriculum consists of those things that pupils learn through the experience of attending school, rather than the stated educational objectives of such institutions. According to Bowles and Gintis, the hidden curriculum shapes the future workforce in the following ways:

1. It helps to produce a subservient workforce of uncritical, passive and docile workers. In a study based upon 237 members of the senior year in a New York high school. Bowles and Gintis found that the grades awarded related more to personality traits than academic abilities. They found that low grades were related to creativity, aggressiveness and independence, while higher grades were related to perseverance, consistency, dependability and punctuality.

   Far from living up to the liberal ideal of encouraging self-development, the American education system was creating an unimaginative and unquestioning workforce which could be easily manipulated by employers.

2. Bowles and Gintis claim that the hidden curriculum encourages an acceptance of hierarchy. Schools are organized on a hierarchical principle of authority and control. Teachers give orders, pupils obey. Students have little control over the subjects they study or how they study them. This prepares them for relationships within the workplace where, if workers are to stay out of trouble, they will need to defer to the authority of supervisors and managers.

3. At school, pupils learn to be motivated by external rewards, just as the workforce in a capitalist society is motivated by external rewards. Because students have so little control over, and little feeling of involvement in, their school work, they get little satisfaction from studying. Learning is based upon the 'jug and mug' principle. The teachers possess knowledge which they pour into the 'empty mugs', the pupils. It is not therefore surprising that many pupils do not enjoy the process of schooling. Instead, they are encouraged to take satisfaction from the external reward of a qualification at the end of their studies. The qualification offers the promise of employment, or better-paid employment than would otherwise have been the case.

   The subsequent creation of a workforce motivated by external rewards is necessary, according to Bowles and Gintis, because work in capitalist societies is intrinsically unsatisfying. It is not organized according to the human need for fulfilling work, but according to the capitalist's desire to make the maximum possible profit. As a result, the workers must be motivated by the external reward of the wage packet, just as the pupil is motivated by the external reward of the qualification.

4. Bowles and Gintis claim that another important aspect of the hidden curriculum is the fragmentation of school subjects. The student, during the course of the school day, moves from one subject to another: from mathematics to history, to French, to English. Little connection is made between the lessons: knowledge is fragmented and compartmentalized into academic subjects.

This aspect of education corresponds to the fragmentation of the workforce. Bowles and Gintis believe most jobs in factories and offices have been broken down into very specific tasks carried out by separate individuals. In this way, workers are denied knowledge of the overall productive process, which makes it impossible for them to set up in competition with their employers. Furthermore, a fragmented and divided workforce is easier to control, and this control can be maintained because of the principle of 'divide and conquer'. It becomes difficult for the workforce to unite in opposition to those in authority over them.

The benefits of the education system for capitalism

Bowles and Gintis believe the formal parts of the curriculum correspond to the needs of capitalist employers by providing a surplus of skilled labour. This maintains a high rate of unemployment and ensures that workers of all levels of skill have to compete with each other for jobs. Employers can pay low wages through being able to threaten dismissal and replacement by the reserve army of skilled workers. Since the mental requirements of most jobs are quite low, and most skills can be learned on the job, education tends to over-educate the workforce.

Apart from the direct benefits provided by the education system, just outlined. Bowles and Gintis argue that education also has indirect benefits for capitalism through the legitimation of inequality. By makil1g society appear fair and just, class consciousness does not develop and the stability of society is not threatened.

The illusion of equality of opportunity

Unlike functionalists, Bowles and Gintis reject the view that capitalist societies are meritocratic, and unlike social democratic theorists they deny that they can become so within a capitalist framework. They believe that class background is the most, important factor influencing levels of attainment.

The idea that we all compete on equal terms is an illusion. Although education is free and open to all, and despite the fact that individuals can apply for jobs at will, Bowles and Gintis claim that some have much greater opportunities than others. The children of the wealthy and powerful tend to obtain high qualifications and highly rewarded jobs irrespective of their abilities. The education system disguises this, with its myth of meritocracy. Those who are denied success blame themselves, and not the system which has condemned them to failure.

Intelligence, educational attainment and meritocracy

Bowles and Gintis base their argument on an analysis of the relationships between intelligence (measured in terms of an individual's intelligence quotient or IQ), educational attainment and occupational reward. They argue that IQ accounts for only a small part of educational attainment.

Bowles and Gintis examined a sample of individuals with average IQs. Within this sample they found a wide range of variation in educational attainment, which led them to conclude that there is hardly any relationship between IQ and academic qualifications.

They found a direct relationship between educational attainment and family background. The causal factor is not IQ, but the class position of the individual's parents. In general, the higher a person's class of origin, the longer he or she remains in the educational system and the higher his or her qualifications.

But why do students with high qualifications tend to have higher-than-average intelligence? Bowles and Gintis argue this relationship is largely 'a spin-off, a by-product' of continued education. The longer an individual stays in the educational system, the more his or her IQ develops. Thus IQ is a consequence of length of stay, not the cause of it.

The above evidence led Bowles and Gintis to conclude that, at least in terms of IQ, the educational system does not function as a meritocracy.

They apply a similar argument to the statistical relationship between IQ and occupational reward. In general, individuals in highly paid occupations have above-average IQs. However, Bowles and Gintis reject the view that IQ is directly related to occupational success. Within their sample of people with average IQs, they found a wide range of income variation. If IQ were directly related to occupational reward, the incomes of those with the same IQ should be similar. Again Bowles and Gintis found that family background was the major factor accounting for differences in income.

They found that the main factors accounting for occupational reward were the individual's class of origin, race and sex. There is considerable evidence to show that educational qualifications are far more valuable on the job market to the white male than to the white female, to the white male than to the black male, to the middle-class male than to the working-class male.

Thus Bowles and Gintis argue:

> The intellectual abilities developed or certified in school make little causal contribution to getting ahead economically. Only a minor pardon of the substantial statistical association between schooling and economic success can be accounted for by the school's role in producing or screening cognitive skills.
>
> Bowles arid Gintis. 1976

They conclude: 'Education reproduces inequality by justifying privilege and attributing poverty to personal failure.' It efficiently disguises the fact that economic success runs in the family, that privilege breeds privilege. Bowles and Gintis therefore reject the functionalist view of the relationship between education and stratification put forward by Talcott Parsons and Davis and Moore.

Class conflict and education

Bowles and Gintis devote less attention to explaining how education and work correspond than they do to describing the similarities between them. Nevertheless, they do make some attempt to explain how such a close fit has come about. They admit that there has been conflict over the American educational system, and that in the past it has not always fitted neatly with the economy. They also admit that members of the working class have at certain times tried to shape the education system themselves.

However, Bowles and Gintis deny that the conflict has produced any notable working-class victories. They claim that representatives of the ruling class have intervened at crucial times to ensure that their interests continue to be served. Any compromises that have taken place have come down heavily in favour of the ruling class, not the working class.

Bowles and Gintis also claim that working-class demands for changes in education have been of limited scope. They suggest that the working class is likely to be fairly content with the type of education system Bowles and Gintis have described because it fosters the attitudes and abilities that are appropriate for work in a capitalist society and, as such, it meets day-to-day needs. Furthermore, the role of the education system in legitimating inequality prevents members of the working class from seeing beyond their own life experiences. Exploited groups are not encouraged to see how the education system and the society it is part of could be transformed to serve working-class interests.

Criticisms and Evaluation of Bowles and Gintis

The work of Bowles and Gintis has been highly controversial. It has been criticized by Marxists and non-Marxists alike. The critics tend to a that Bowles and Gintis have exaggerated the correspondence between work and education, and have failed to provide adequate evidence to support their case:

1. M.S.H. Hickox (1982) questions the view that there is a close correspondence between education and economic developments. He points out that in Britain compulsory education was introduced long after the onset of industrialization. Despite the fact that for a long time capitalists did not employ a workforce which had had its attitudes and values shaped by education, the development of capitalism did not appear to be affected.

2. Phillip Blown, A.H. Halsey, Hugh Lauder and Amy Wells (1997) argue that, even if education used to produce the sorts of behaviour and personality required by capitalist employers, this may no longer be the case. They suggest that changes in the nature of work organizations have reduced the importance of bureaucratic control and increased the importance of teamworking. However, the exam system in which people are judged and compete with one another as individuals discourages the development of teamworking skills.

3. Bowles and Gintis can be criticized for their claims about the way that schools shape personality. They did not carry out detailed research into life within schools. They tended to assume that the hidden curriculum was actually influencing pupils. There are, however, numerous studies which show that many pupils have scant regard for the rules of the school, and little respect for the authority of the teacher. Paul Willis (1977) (see pp. 702–4) showed that working-class 'lads' learned to behave at school in ways quite at odds with capitalism's supposed need for a docile workforce.

4. Bowles and Gintis have been criticized for ignoring the influence of the formal curriculum. David Reynolds (1984) claims that much of the curriculum in British schools does not promote the development of an ideal employee under capitalism. The curriculum does not seem designed to teach either the skills needed by employers or uncritical passive behaviour which makes workers easy to exploit. He says:

> The survival in schools of a liberal, humanities-based curriculum, the emphasis upon the acquisition of knowledge for the purposes of intellectual self-betterment rather than … material gain, the limited swing o science within higher education, the continuing high status of 'pure disciplines' as against work-related applied knowledge, the decline in commercially important foreign languages at sixth form level … all suggest a lack of correspondence.
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> Reynolds, 1984

It might be added that the popularity of sociology as an 'A' level subject in Britain could hardly be seen as promoting unthinking workers! Even if the hidden curriculum could be shown to encourage docility, the presence of Bowles and Gintis themselves within the formal curriculum would undermine their claims about education.

5. A further area of criticism concerns the extent to which education legitimates inequality by creating the appearance that success and failure are based upon merit. M.S.H. Hickox 91982) refers to a study by Richard Scase in which only 2.5 per cent of a sample of English workers expressed the view that educational qualifications were an important factor in determining social class. Most of those interviewed placed a far greater emphasis on family background and economic factors. This would suggest that education has not succeeded in legitimating inequality in Britain.

6. Bowles and Gintis have been attacked for failing to explain adequately how the economy shapes the education system. David Reynolds (1984) suggests it is simply not possible for British capitalists or the 'capitalist state' to exercise detailed control over British schools. Local

authorities have a considerable amount of freedom in the way the organize schools, and, once they 'shut the classroom door', teachers are not subject to close supervision. Reynolds claims 'a large number of radicals have been attracted into teaching', and because of their independence they have not moulded education to suit the needs of capitalism.

Bowles and Gintis developed their theory of education in the 1970s, and their views have become less influential in later decades. However, it can be argued that, since critics first responded to their theory, the British education system has developed in such a way that their analysis may have become more relevant. For example, local authorities have lost some of their power, over education because they no longer run colleges, and schools now have greater autonomy. The freedom of teachers has been restricted by the introduction of a national curriculum, and education has become more explicitly designed to meet the needs of employers. These changes will be discussed later in the chapter (see pp. 713–15).

Whatever the merits of Bowles and Gintis's work, many sociologists sympathetic to Marxism have felt the need to modify their approach. Some have denied that parts of the superstructure, such as education, are exclusively shaped by the infrastructure; others have stressed that pupils and students are not simply the passive recipients of education.

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Haralambos, M., M. Holborn and R. Heald. 2004. Paul Willis–Learning to Labour. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 702–704.

In an important and much discussed study, Paul Willis (1977) developed a distinctive, neo-Marxist approach to education. Like Giroux, Willis recognizes the existence of conflict within the education system, and he rejects the view that there is any simple, direct relationship between the economy and the way the education system operates. Like Bowles and Gintis, Willis focuses on the way that education prepares the workforce, but he denies that education is a particularly successful agency of socialization. Indeed, Willis argues education can have unintended consequences for pupils – consequences which may not be completely beneficial to capitalism.

As well as drawing upon Marxist sociology, Willis adopted some of the research techniques associated with symbolic interactionism. He used a wide variety of research methods in his study of a Midlands school in England in the 1970s. He used 'observation and participant observation in class, around the school and during leisure activities, regular recorded group discussions, informal interviews and diaries.'

In the course of his research Willis did not just rely upon abstract analysis of the relationship between education and the economy, but tried to understand the experience of schooling from the perspective of the pupils. He soon found that schools were not as successful as Bowles and Gintis supposed in producing docile and conformist future workers.

The counter-school culture

The school Willis studied was situated on a working-class housing estate in a predominantly industrial small town. The main focus of his study as a group of 12 working-class boys whom he followed over their last 18 months at school, and their first few months at work. The 12 pupils formed a friendship grouping with a distinctive attitude to school. The 'lads', as Willis refers to them, had their own counter-school culture, which was opposed to the values espoused by the school.

This counter-school culture had the following features. The lads felt superior both to teachers and to conformist pupils, whom they referred to as 'ear 'oles'. The lads attached little or no value to the academic work of the school and had no interest in gaining qualifications. During their time at school their main objective was to avoid going to lessons, or, when attendance was unavoidable, to do as little work as possible. They would boast about the weeks and months they could go without putting pen to paper. They resented the school trying to take control over their time – they constantly tried to in 'symbolic and physical space from the institution and its rules'.

While avoiding working, the lads kept themselves entertained with 'irreverent marauding misbehaviour'. 'Having a laff' was a particularly high priority. Willis described some of the behaviour that resulted:

> During films in the hall they tie the projector leads into impossible knots, make animal figures or obscene shapes on the screen with their fingers, and gratuitously dig and jab the backs of the 'ear 'oles' in front of them.
> Willis. 1977

Throughout school, the lads had an 'aimless air of insubordination ready with spurious justification and impossible to nail down'.

To the lads, the school equalled boredom, while the outside world, particularly the adult world, offered more possibilities for excitement. Smoking cigarettes, consuming alcohol and avoiding wearing school uniform were all ways in which they tried to identify with the adult world. Going out at night was seen as far more important than school. Many of them also had part-time jobs, which were more than just ways of earning cash: they were a means of gaining a sense of involvement in the male, adult world.

The lads' counter-culture was strongly sexist, emphasizing and valuing masculinity and downgrading femininity. It is significant that the lads regarded the ear 'oles as cissies, lacking true masculine attributes. In addition, the counter-culture was racist, seeing members of ethnic minorities as inferior.

According to Willis, the lads were anxious to leave school at the earliest possible moment, and they looked forward eagerly to their first full-time jobs. While the ear 'oles took notice of career lessons and were concerned about the types of job they would eventually get, the lads were content to go on to any job, so long as it was a male manual job. Such jobs were considered 'real work', in contrast to the 'pen pushers' jobs which the ear 'oles were destined for. Manual labour was seen by the lads as more worthy than mental labour.

Having described the counter-school culture, Willis observes that the education system seems to be failing to manipulate the personalities of pupils to produce ideal workers. They neither defer to authority nor are they obedient and docile. Furthermore, they did not believe it is worth striving to maximize individual achievement. Yet Willis believes, paradoxically, that the lads were well prepared for the work that they would do. It was their very rejection of school which made them suitable for male, unskilled or semi-skilled manual work.

Shop-floor culture and counter-school culture

When Willis followed the lads into their first jobs, he found important similarities between shop-floor culture and the counter-school culture. There was the same racism and sexism, the same lack of respect for authority, and the same emphasis on the worth of manual labour. Having a 'laff' was equally important in both cultures, and on the shop-floor, as in the school, the maximum possible freedom was sought. The lads and their new work mates tried to control the pace at which they worked, and to win some time and space in which they were free from the tedium of work.

According to Willis, both the counter-school culture and the shop-floor culture are ways of coping with tedium and oppression. Life is made more tolerable by having a 'laff' and winning a little space from the supervisor, the manager or the teacher. In both settings, though, the challenges to authority never go too far. The lads and workers hope to gain a little freedom, but they do not challenge the institution head-on. They know that they must do a certain amount of work in the factory or risk dismissal, and they realize that the state can enforce school attendance if it is determined to do so.

Having described and compared the counter-school culture and the shop-floor culture, Willis analyses the significance of his findings for an understanding of the role of education in society.

Willis does not see the education system as simply being a successful agency of socialization which produces false class consciousness. He does believe that education reproduces the sort of labour force required by capitalism, but not directly or intentionally. The lads are not persuaded to act as they do by the school, nor are they forced to seek manual labour; rather, they actively create their own subculture, and voluntarily choose to look for manual jobs. They learn about the culture of the shop-floor from fathers, elder brothers and others in the local community. They are attracted to this masculine, adult world, and respond to schooling in their own way because of its lack of relevance to their chosen future work.

Capitalism and the counter-school culture

In the final part of his book Willis discusses the significance of the counter-school culture for capitalist society. Once again he does not simply argue that the lads' culture is entirely beneficial a capitalism, nor does he think it is entirely harmful. Willis claims

that in some ways the lads see through the capitalist system, but in other ways they contribute to their own exploitation and subordination.

Willis identifies a number of insights into the workings of capitalism that the lads have, which he calls penetrations. The lads see through at least part of the ideological smokescreen that tends to obscure the true nature of capitalism:

1. He says they recognize that capitalist society is not meritocratic. They understand that they are unlikely to be upwardly socially mobile to any great extent.

2. The lads show an appreciation of the limitations of a strategy of pursuing individual achievement for improving their own lives. Willis claims that only collective action can dramatically change the position of the working class, and in their loyalty to their mates at school or on the shop-floor the lads recognize this. Collective action might create a classless society or eradicate unemployment, whereas striving for individual achievement will not.

3. The lads can see through careers advice. They know that most of the jobs likely to be available in their area require little skill, and that their studies at school will not prepare them for their work. Even if they worked hard at school, the qualifications they would get would be quite limited. They might be able to move into clerical work, or gain an apprenticeship, but the sacrifices would hardly be worth the small amount of extra pay.

4. They have come to understand the unique importance of manual labour power. In a sense they have followed in the footsteps of Karl Marx and found for themselves that it is labour power that creates wealth.

On the other hand, Willis does not believe that the lads have seen through all of the ideological justifications for capitalism. They have no overall picture of how capitalism works to exploit them and they tend to be sexist and racist. Their attitudes to women and ethnic minorities merely serve to divide the working class, making it easier for it to be controlled. Furthermore, the lads' willing entry into the world of manual work ultimately traps them in an exploitative situation. At school they prepare themselves to cope with manual labour, but in doing so they condemn themselves to 'a precise insertion into a system of exploitation and oppression for working-class people'.

In his wide-ranging research, then, Willis tries to show that it is the rejection of school which prepares one section of the workforce (semi-skilled and unskilled manual labourers) for its future role. This is done through the actively created and chosen counter-school culture of some working-class pupils. The reproduction of labour power through education works in an indirect and unintentional way. The lads are not simply suffering from false class consciousness – in part they understand their own alienation and exploitation – yet in the end their own choices help to trap them in some of the most exploitative jobs that capitalism has to offer. As Willis says, 'Social agents are not passive bearers of ideology, but active appropriators who reproduce existing structures only through struggle, contestation and a partial penetration of those structures.'

Paul Willis – criticism and evaluation

Undoubtedly, Willis's study has been influential. Liz Gordon (1984), for example, claims it 'has provided the model on which most subsequent cultural studies investigation within education has been based'. Furthermore, she believes it has encouraged Marxists to pay more attention to the details of what actually happens within education, and it has helped to overcome a tendency to provide over-simplified accounts of the role of education in society. Nevertheless, Willis has his critics.

David Blackledge and Barry Hunt (1985) advance three main criticisms:

1. They suggest Willis's sample is inadequate as a basis for generalizing about working-class education. Willis chose to concentrate on a mere 12 pupils, all of them male, who were by no means typical of the pupils at the school he studied, never mind of schoolchildren in the population as a whole.

2. In a related criticism they accuse Willis of largely ignoring the existence of a whole variety of subcultures within the school. Blackledge and Hunt point out that many pupils came somewhere in between the extremes of being totally conformist and being totally committed to the counter-school culture. As we will see in a later section, some interactionist studies have uncovered a wide variety of pupil subcultures and ways of reacting to school...

3. Blackledge and Hunt suggest Willis misinterpreted some evidence. For example, by examining Willis's own evidence they argue there is little basis for claiming that the lads develop the same attitudes to work as previous generations of workers. They point to some differences between one of the lads, Joey, and his father. Joey's father took much more pride in his work than Joey and showed much less contempt for people outside his circle of friends than Joey.

   It is also questionable how far Willis's findings would apply in contemporary Britain, where there are far fewer unskilled manual jobs available and less chance of finding employment without educational qualifications. Nevertheless, in trying to combine an ethnographic study of the school with an analysis of the role of education. Willis demonstrated how it is possible to move beyond the limited focus of most studies of education.

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Haralambos, M., M. Holborn and R. Heald. 2004. Education–An Interactionist Perspective. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 751–756.

The explanations of differential achievement that we have examined so far all suggest that pupils' progress in education is strongly influenced by factors over which individuals have little control. Intelligence and home background are presented as largely determining the performance of pupils within the education system.

Yet the most obvious place to look for an explanation of differential educational achievement is within the education system itself. None of the previous approaches is based upon an examination of schooling, but it is widely assumed that schools play an important part in determining educational success and failure. Interactionists have illuminated the processes within the education system which result in different levels of achievement. Interactionists – far more than any other type of sociologists – have researched into the details of day-to-day life in schools.

As we saw in previous sections, sociologists have explained performance in the education system in terms of intelligence, cultural and material deprivation, and social stratification. All of these approaches are, from the interactionist point of view, deterministic: that is, they see human behaviour as directed and determined by forces beyond the control of the individual. Individuals are held to react in a predictable way to external stimuli such as the directives of subcultures or me pressures of stratification systems. In contrast, to interactionists, the explanation of human behaviour needs to take account of me subjective states of individuals, and the meanings that individuals attach to external stimuli.

Within education, as in society as a whole, other people are perhaps me most important source of external stimuli: their words and actions will constantly be interpreted and given meanings. To interactionists, your view of yourself, or self-concept, is produced in interaction with others. The self-concept of the pupil is influenced by the other pupils and the teachers with whom she or he interacts. Interactionists believe that the development of your self-concept can have a significant effect on educational achievement and this view provides the framework for interactionist studies of education. We will now examine the findings of these studies.

Typing, labeling and self-fulfilling prophecy

One of the most important aspects of the interactionist theory of education concerns the ways in which teachers make sense of and respond to the behaviour of their pupils.

In their book Deviance in Classrooms (1975), David H. Hargreaves, Stephen K. Hester and Frank J. Mellor analyse the ways in which pupils come to be typed or classified. Their study is based upon interviews with teachers, and classroom observation in two secondary schools. They examined the way in which teachers 'got to know' new pupils entering their first year at the school.

Initially, teachers have limited knowledge about their new pupils as individuals. They may know about the types of catchment area from which pupils originate, and have a general image of first-year pupils, but apart from this they can only start to build up a picture as the school year progresses. Hargreaves et al. distinguish three stages of typing or classification.

The first stage consists of speculation. The teachers make guesses about the types of pupils they are dealing with. The researchers noted seven main criteria on which initial typing was based. Teachers distinguished pupils according to:

1. their appearance
2. how far they conformed to discipline
3. their ability and enthusiasm for work
4. how likeable they were
5. their relationships with other children
6. their personality
7. whether they were deviant

Hargreaves et al. stress that in the speculation phase teachers are only tentative in their evaluations, and they are willing to amend their views if initial impressions prove to be misleading. Nevertheless, they do form a working hypothesis – a theory about what sort of child each pupil is.

Each hypothesis is then tested in the second phase, which Hargreaves et al. call elaboration. Gradually the hypotheses are either confirmed or contradicted, but either way the teachers become more confident in their judgements as their typing is refined.

When the third stage is reached, stabilization takes place. By this time the teacher feels, 'He "knows" the pupil; he understands him; he finds little difficulty in making sense of his acts and is not puzzled or surprised by what he does or says.' By this time, all the pupil's actions will be evaluated in terms of the type of pupil they are thought to be. Some pupils will be regarded as deviants, and for them it will be difficult for their behaviour to be seen in a positive light.

Typing and social class

Although Hargreaves et al. do emphasize that typing is a gradual process, other sociologists have suggested it can be much more abrupt.

In a study of an American kindergarten, R.C. Rist (1970) found that as early as the eighth day of school the children were permanently seated at three separate tables. Furthermore, table 1 was reserved for 'fast learners', tables 2 and 3 for the less able. According to Rist, though, it was not, in reality, ability which determined where each child sat, but the degree to which they conformed to the teacher's own middle-class standards. For example, the teacher seemed to take account of whether the children had neat and clean appearances, and whether they were known to come from an educated family in employment. In other words, the kindergarten teacher was evaluating and labelling pupils on the basis of their social class, not on the abilities they demonstrated in class.

The effects of typing

In itself the typing or labelling of pupils might not be that important, but many sociologists claim it has important effects upon the progress of pupils. Teachers are in a position to affect their pupils' progress in a number of direct and indirect ways.

For example. Aaron V. Cicourel and John I. Kitsuse (1971) conducted a study of the decisions of counsellors in an American high school. The counsellors play an important part in students' educational careers since they largely decide which students should be placed on courses designed for preparation for college entry. Although the counsellors claimed to use grades and the results of IQ tests as the basis for classifying students in terms of achievement, Cicourel and Kitsuse found significant discrepancies between these measures and the ways in which students were classified.

Cicourel and Kitsuse found that the student's social class was an important influence on the way he or she was evaluated. Thus, even when students from different social backgrounds had similar academic records, counsellors were more likely to perceive those from mlddle- and upper-middle-class origins as natural 'college prospects', and place them on higher-level courses.

Cicourel and Kitsuse argue that counsellors' classifications of students' ability and potential are influenced by a whole range of non-academic factors, such as the students' appearance, manner and demeanour, assessments of their parents, and reports from teachers on their conduct and adjustment. Cicourel and Kitsuse suggest that a counsellor's evaluation of an individual as a 'serious, personable, well-rounded student with leadership potential' may

often have more effect than his or her grades upon his or her educational career. Cicourel and Kitsuse conclude that such procedures do not uphold the 'idea1 of equal access to educational opportunities for those of equal abiliry'.

In an article based on the same research, Cicourel and Kitsuse examine the meanings employed by counsellors in the definition of students as 'conduct problems'. Again, they found a range of factors high subtly combine to create the counsellors' picture of a conduct problem. These include 'the adolescent's posture, walk, cut of hair, clothes, use of slang, manner of speech'. Again, social class is an important basis for classification, since the characteristics used to type a conduct problem tend to be found in students from low- income backgrounds.

In British schools, teachers often differentiate between pupils by making decisions about what exams to enter them for and what streams or bands to place them in. These decisions can influence the options open to pupils and the extent of their progress in similar ways to those discovered by Cicourel and Kitsuse. We will consider this particular question of banding and streaming in the next section.

Teachers can also affect pupil progress in other ways apart from determining what classes they are placed in and what courses they take. Two closely related theories – the self-fulfilling prophecy theory and the labelling theory – both suggest that pupil behaviour can be changed by the way that teachers react to them.

The labelling theory suggests that typing leads to labels being attached to pupils.

The self-fulfilling prophecy theory argues that predictions made by teachers about the future success or failure of pupils will tend to come true because the prediction has been made. The teacher defines the pupil in a particular way, such as 'bright' or 'dull'. Based on this definition, the teacher makes predictions or prophecies about the behaviour of the pupil: for example, that she or he will get high or low grades.

The teachers' interaction with pupils will be influenced by their definition of the pupils. They may, for example, expect higher-quality work from, and give greater encouragement to, the 'bright' pupils. The pupils' self-concepts will tend to be shaped by the teachers' definition. Pupils will tend to see themselves as 'bright' or 'dull', and act accordingly. Their actions will, in part, be a reflection of what the teacher expects from them. In this way the prophecy is fulfilled: the predictions made by the teacher have come to pass. Thus the pupil's attainment level is to some degree a result of interaction between himself or herself and the teacher.

There have been a number of attempts to rest the validity or the self-fulfilling prophecy theory. The most famous one was conducted by Robert Rosenthal and Leonora Jacobson (1968) in an elementary school in California. They selected a random sample of 20 per cent of the student population and informed the teachers that these children could be expected to show rapid intellectual growth. They tested all pupils for IQ at the beginning of the experiment. After one year the children were re-tested and, in general, the sample population showed greater gains in IQ. In addition, report cards indicated that teachers believed that this group had made greater advances in reading skills.

Although Rosenthal and Jacobson did not observe interaction in the classroom, they claimed 'teachers' expectations can significantly affect their pupils' performance'. They suggested teachers had communicated their belief that the chosen 20 per cent had greater potential to the children, who responded by improving their performance. Rosenthal and Jacobson speculated that the teachers' manner, facial expressions, posture, degree of friendliness and encouragement conveyed this impression, which produced a self-fulfilling prophecy.

Evaluation of self-fulfilling prophecy and labelling theory

Despite the plausibility of the self-fulfilling prophecy theory, it has been criticized. One area of criticism concerns the evidence. Rosenthal and Jacobson have been strongly attacked for the methodology they used in their study. In particular, it has been suggested that the IQ tests they used were of dubious quality and were improperly administered. In a review of research in this area, C. Rogers summarizes the findings. He says:

> Some show effects only with younger children, some only with older ones. Some show effect with urban children, bur not suburban. Some show quantitative but not qualitative effects on pupil-teacher interactions, while others show the exact opposite. Rogers, 1982

Notwithstanding these contradictions, Rogers claims that the overall evidence, on balance, suggests the self-fulfilling prophecy is a real phenomenon. However, it can be argued it is not the inevitable phenomenon that Rosenthal and Jacobson make it appear.

Some interactionists have come to realize that not all pupils will live up to their labels. In a study of a group of black girls in a London comprehensive school, Margaret Fuller (1984) found that the girls resented the negative stereotypes associated with being both female and black. They felt that many people expected them to fail, but, far from living up to their expectations, they tried to prove them wrong. The girls devoted themselves to school work in order to try to ensure their success.

This particular interactionist, then, recognizes that negative labels can have a variety of effects. However, this observation weakens the forcefulness of the labelling theory. It seems that labels will usually have an effect, but the type of effect they have is not predictable. Fuller's work avoids some of the pitfalls of the cruder versions of labelling theory, which are rather deterministic in suggesting the inevitability of failure for those with negative labels attached to them. Her views are more in keeping with the non-deterministic interpretations of behaviour which are, for the most part, typical of interactionist research.

Banding and Streaming

Labelling and self-fulfilling prophecy theories suggest ways in which teachers' reactions to individual pupils can affect their educational careers. It is also possible, though, that whole groups of pupils, not just individuals, can be treated in different ways. Despite the fact that, under the comprehensive system, all state-educated pupils attend the same type of school, this may not mean that they receive the same type of education. In many comprehensive schools, pupils are placed, for at least part of the time, in different classes according to their supposed abilities.

Stephen J. Ball – banding at Beachside Comprehensive

In his book Beachside Comprehensive (1981), Stephen J. Ball examines the internal organization of a comprehensive school. At Beachside a system of banding was introduced for first-year pupils. Pupils were placed in one of three bands on the basis of information supplied by their primary schools. The first band was supposed to contain the most able pupils, and the third band the least able. However, Ball found that factors other than academic criteria were influential in determining the bands in which the children were placed. In particular, for pupils of similar measured ability, those whose fathers were non-manual workers had the greatest chance of being placed in the top band.

Ball observed that most pupils were conformist and eager when they first entered the school, but gradually the behaviour of the children began to diverge. He attributed this process to teachers' stereotypical views of the different bands. Band one was seen as likely to be hard-working, dedicated and well-behaved. Band three was not expected

to be particularly troublesome, but the pupils were expected to have considerable learning problems. Band two was expected to be the most difficult to teach and the least cooperative.

According to Ball, the effect of these views was a progressive deterioration in the behaviour of most band two pupils, which was reflected in higher levels of absence, more non-conformist behaviour and a lack of effort being put into homework.

As a result of teacher expectations, different bands tended to be caught in different ways and encouraged to follow different educational routes. Band one pupils were 'warmed-up': they were encouraged to have high aspirations and to follow 'O'-level courses in subjects with a high academic status. In contrast, band two children were 'cooled-out' and directed towards more practical subjects and towards CSE exams. The end result was that band two pupils were much less likely than their band one counterparts to take 'O' levels, to stay on at school after the age of 16, or to take 'A' levels.

Ball admits that not ali band two children failed. Some were able to overcome the difficulties that placement in this band produced. Nevertheless, there was a strong relationship between banding and performance. Given that there was also a strong relationship between social class and banding. Ball claims 'working-class pupils tend to percolate downwards in the processes of academic and behavioural differentiation'.

Nell Keddie – streaming and classroom knowledge

While Ball examined the workings of a banding system, a study by Nell Keddie (1973) looked at the operation of streaming in a single subject in a large London comprehensive school. As well as looking at the classification and evaluation of students, Keddie also studied the ways in which knowledge was evaluated and classified. She tried to work out the criteria used by teachers to categorize and evaluate classroom knowledge.

Keddie discovered that knowledge defined by teachers as appropriate to the particular course was considered worthwhile; knowledge from the student's experience which did not fit this definition was considered of little consequence. Knowledge presented in an abstrast and general form was considered superior to particular pieces of concrete information. The knowledge made available to students depended on the teacher's assessment of their ability to handle it. Thus those students who were defined as bright were given greater access to highly valued knowledge.

Like other interactionists, Keddie found a relationship between perceived ability and social class. Pupils were streamed into three groups in terms of ability. There was a tendency for pupils from higher-status white-collar backgrounds to be placed in the 'A' stream, and for those from semi-skilled and unskilled manual backgrounds to be relegated to the 'C' stream.

Keddie observed the introduction of a new humanities course designed for all ability levels. Despite the fact that all streams were supposed to be taught the same material in the same way, Keddie found that teachers modified their methods and the information they transmitted, depending on which stream they were teaching. There was a tendency to withhold 'higher grade' knowledge from 'C' stream pupils. Some teachers allowed the 'C' stream pupils to make more noise and do less work than those in the 'A' stream.

Keddie argued that teachers classified students in terms of a standard of the 'ideal pupil'. The middle-class pupils in the 'A' stream were closest to this ideal and were therefore given greater access to highly evaluated knowledge. This resulted in 'the differentiation of an undifferentiated curriculum'.

Keddie then examined the students definition of the situation, and she accounted for the 'success' of 'A' stream students in the following way. 'A' stream students were more willing to accept on trust the validity of the teacher's knowledge and to work within the framework imposed by the teacher. By

comparison, 'C' stream pupils would not suspend their disbelief if the teacher made statements that did not match their own experience. For example, one pupil objected to a teacher's portrayal of the 'British family' because it did not fit his own experience.

From the teachers' viewpoint, such objections slowed down the transmission of the 'body of knowledge' they were concerned with getting across. Many of the questions asked by 'C' stream pupils were defined by teachers as irrelevant and inappropriate, as were their attempts to relate their personal experience to the course. In general, 'C' stream pupils were less willing to work within the guidelines set by teachers. Keddie ironically commented, 'It would seem to be me failure of high-ability pupils to question what they are taught in schools that contributes in large measure to their educational achievement.'

Keddie concluded that classifications and evaluations of both pupils and knowledge are socially constructed in interaction situations. Appropriate knowledge is matched to appropriate pupils. This results in knowledge defined as high-grade being made available to students perceived as having high ability. It results in pupils perceived as having low ability (in practice, mainly working-class pupils) actually being denied knowledge which is essential for educational success.

Pupil subcultures and adaptations

From an interactionist point of view, pupils experience school in different ways. They are treated differently by their teachers, given different labels, and often placed in different bands or streams. The pupils attach different meanings to their education and find a variety of ways to relate to their experiences. Schools usually lay down a set of standards and indicate to their pupils how they are expected to behave.

However, not all pupils are able and willing to conform to the image of the ideal pupil held by teachers. If they fail to do so, pupils may well form their own subcultures which reject some of the values of the school.

David Hargreaves – streaming and pupil subcultures

In an early study of a secondary modern school, David Hargreaves (1967) related the emergence of subcultures to labelling and streaming. Pupils labelled as 'trouble-makers' were placed in lower streams; those whose behaviour was more acceptable in higher streams. Those with negative labels attached to them had been defined as failures: first, by being placed in a secondary modern which was seen as a second-rate institution; and second, through the streaming system. Many teachers regarded them as no more than 'worthless louts'.

Faced with the problem of being unable to achieve high status within the school, such pupils attempted to protect their sense of worth and retain a positive self-concept. Students labelled as troublemakers tended to seek out each other's company, and within their group awarded high status to those who broke the school rules. Thus, disrupting lessons, giving cheek to teachers, failing to hand in homework, cheating and playing truant all brought prestige. According to Hargreaves, then, two distinctive subcultures emerged within the school: the conformists and the non-conformist delinquents.

Peter Woods – pupil adaptations

Peter Woods (1979, 1983) argues, however, that schools are more complex than Hargreaves's work would suggest. Woods based his ideas upon a study of 'Lowfield', a secondary modern in a rural area of the Midlands.

Following Merton's typology of adaptations (see pp. 333–5), Woods suggests that pupils' ways of dealing with school life depend upon whether they accept or reject the aim of academic success and the institutional means which specify the appropriate forms of behaviour within the school. Going beyond

Merton, Woods points out that pupils may accept goals and means with a greater or lesser degree of enthusiasm, and for different reasons. In all, Woods identifies no fewer than eight different modes of adaptation to the school:

1. Ingratiation is the most positive adaptation. Pupils who try to ingratiate themselves identify completely with teachers, and try to earn their favour. Such pupils care little about other pupils' attitudes to them and they may be regarded by other pupils as 'creeps' or 'teacher's pets'.

2. Compliance is a less strong positive adaptation to the school. Woods regards this adaptation as typical of new pupils in secondary schools. It is also common among older pupils who are studying for external exams, who comply for instrumental reasons, that is in order to achieve success in their exams.

3. Opportunism is an adaptation which often develops in the second year at school and may be a temporary phase before the pupil develops a stable attitude to the school. Opportunist pupils fluctuate between trying to gain the approval of their teachers and their peer group.

4. Ritualists are deviant to the extent that they reject the goals of education, but they are not difficult to control. They will 'go through the motions' of attending school, and will not break school rules, but they are not concerned either to achieve academic success or to gain the approval of teachers.

5. Other pupils develop more deviant adaptations. Retreatists reject both the goals and the means laid down by the school, but without out right rebellion. They try to pass the time by daydreaming in lessons, 'mucking about' or 'having a laugh', but they are not consciously trying to oppose the value of the school.

6. According to Woods, a very common adaptation in later years at the school is colonization. This is characterized by 'indifference to goals with ambivalence about means'. Colonizers attach no great importance to academic success, but will try to get away with just enough to 'keep their noses clean'. The' want to avoid trouble, but will copy or cheat if they think there is little chance of discovery.

7. Intransigence represents one of the most difficult adaptations for schools to cope with. Intransigent pupils are indifferent to academic success, and reject the accepted standards of behaviour. They are much less afraid than the colonizers to hide their deviance.

8. The final adaptation, rebellion, involves the rejection of both goals and means and their replacement with alternatives. In this case, school life is directed towards quite different objectives from those sanctioned by the school. For example, some girls might devote their school life to showing concern for their personal appearance, or discussing boys. Some boys might only be interested in escaping school to enter the world of unskilled manual work (see, for example, the description of Paul Willis's Study, pp. 702–4).

Like many other interactionists, Woods relates his views in a very general way to social class, arguing that the more conformist adaptations tend to be typical of middle-class pupils, the less conformist of the working class. Middle-class pupils will, according to Woods, tend to find both the goals and means encouraged by the school to be more in keeping with the cultural values of their families than will working-class pupils.

Criticisms of Peter Woods

Complicated though Woods's adaptational model is, some interactionists nevertheless feel that it fails to do justice to the complexities of interaction within schools. V.J. Fulong (1984) suggests pupils do not consistently act in accordance with a subculture or a particular type of adaptation. He stresses that

individual pupils will behave differently in different contexts. For example, teachers tend to be seen as 'strict' or 'soft', and even normally conformist pupils might resort co deviant activities when faced with a 'soft' teacher and encouraged to be disruptive by fellow pupils.

A further limitation of the adaptational and subcultural approaches is suggested by M. Hammersley and G. Turner (1984). They point out that there may well be no single set of aims or values accepted by those in authority within a school. Not all teachers share a middle-class view of the world and middle-class values. Some may be in sympathy with at least some of the activities of 'deviant' pupils, and be less than enthusiastic about the most conformist among those they teach.

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Giddens, A. 2001. "E-universities; education and new communications technology". In *Sociology*. 4th ed. Reprint with the assistance of Karen Birdsall, Cambridge, U.K.: Policy Press, 2002, pp. 504–507.

E -universities

One of the outcomes of globalization and technological advance is the creation of a global market in higher education. Although higher education has always had an international dimension – thanks to overseas students, cross-national research projects and international scholarly conferences – radically new opportunities are emerging for collaboration among students, academics and educational institutions scattered round the globe. Through internet-based learning and the formation of 'e-universities', education and qualifications are becoming more accessible to a global audience. Credentials, certificates and degrees can now be acquired outside the world of physical classrooms and traditional educational establishments. A range of competing institutions and companies – some commercially based – are rapidly entering the global education market. More than ever before, knowledge and learning are 'up for grabs'.

We have already described the Open University, and also how the University of Phoenix has developed the potential of internet-based learning – with great success. By using web-based applications, the university has taken the concept of distance learning to new levels of interactivity. Distance learning is not a new phenomenon; indeed, it is a widespread and extremely popular one. Bu in its traditional form – in which students complete assignments independently and post them to tutors for evaluation – distance learning demand high rates of commitment and self-motivation for it to be effective. When they encounter problems or confusion, students have no one to turn to for prompt guidance. A high number become frustrated and abandon their studies.

Distance learning through the internet avoids some of these basic challenges. Students study in small groups of ten to fifteen individuals, with whom they exchange ideas on an ongoing basis. Course instructors are able to offer individual assistance and answer questions by e-mail, reducing students' sense of isolation. Internet-based courses attempt to replicate all the elements of traditional learning in an online environment.

Even conventional universities are taking steps to become 'e-universities' as well – consortia of institutions are sharing their academic resources, research facilities, teaching staff and students online. Universities around the world are acknowledging the benefits of these partnerships with other institutions whose offerings complement their own. As scholarship and technological innovation proliferate, it is impossible for even the most elite institutions to stay on top of advances in all disciplines. Through online partnerships, they can pool their expertise and make it available to students and researchers within the consortium. Students in London for example, can access online libraries in San Francisco, e-mail specialized academic staff elsewhere to have questions clarified, and collaborate on research projects.

There are also moves in the UK to create distinctly new internet-based learning programmes for a global network of students. In February 2000, David Blunkett, the UK Education and Employment Secretary, announced plans to create a web-based UK university that would bring together elements from the best of British education and make it available to students around the world.

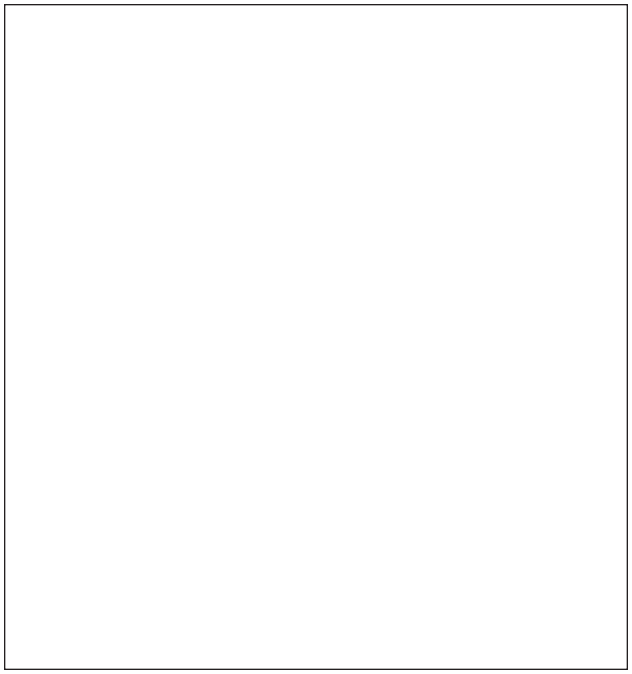
Education and new communications technology

The spread of information technology is already influencing education in schools in a number of different ways. The knowledge economy demands a computer literate workforce and it is increasingly clear that education can, and must, play a critical role

in meeting this need. While household computer ownership has risen sharply in recent years, many children still do not have access to a computer at home. For this reason, schools are a crucial forum for young people to learn about and become comfortable with the capabilities of computers and online technology.

Over the past decade, the use of technology in schools has been utterly transformed, with a series of national initiatives aimed at modernizing and computerizing British schools. The average number of computers per school has increased dramatically; some 96 per cent of children aged five to fifteen have access to computers at school. By 1998 British secondary schools had an average of 101 computers apiece, while in primary schools the average was sixteen (HMSO 2000).

By 1998–9, 93 per cent of British secondary schools and 62 per cent of primary schools could access the internet. The National Grid for Learning, which was launched in 1998, is designed to connect all schools, colleges, universities and libraries in the country by 2002. According to the 1997 policy paper, Connecting the Learning Society, the grid will allow educational institutions across the country to collect and share data with each other. Teachers will be able to discuss curriculum development and share teaching successes with counterparts in other schools. Students can access the grid – even from home computers – for additional materials to provide help in developing literacy and numeracy skills. Schools in isolated regions will be able to make links with institutions in other parts of the country and share learning activities. Students of foreign languages will be able to access native speakers of the language for practice and assistance.



Technology in the classroom

The rise of education in its modern sense was connected with a number of other major changes happening in the nineteenth century. One was the development of printing and the arrival of 'book culture'. The mass distribution of books, newspapers and other printed media was as distinctive a feature of the development of industrial society as were machines and factories. Education provided the skills of literacy and numeracy giving access to the world of printed media. Nothing is more characteristic of the school than the schoolbook or textbook.

In the eyes of many, all this is set to change with the growing use of computers and multimedia technologies in education. Will the internet, CD-ROM and video-tape increasingly replace the schoolbook? And will schools still exist in anything like the form in which they do today if children turn on their computers in order to learn, rather than listening to a teacher? The new technologies, it is said, will not just add to the existing curriculum, they will undermine and transform it. For young people now are already growing up in an information – and media-related society and are much more familiar with its technologies than most adults are – including their teachers.

Some observers speak of a 'classroom revolution' – the arrival of 'desk-top virtual reality' and the classroom without walls. There is little question that computers have expanded opportunities in education. They provide the chance for children to

work independently, to research topics with the help of online resources, and to benefit from educational software that allows them to progress at their own pace. Yet the vision (or nightmare) of classrooms of children learning exclusively through individual computers has not yet come to pass. In fact, the 'classroom without walls' looks some way off. For one thing, there are simply not enough computers to go around at school or in the home! Even well-resourced schools must develop roaring schedules which allow students turns at computer work stations. In schools with a small number of computers, students may spend only a few minutes a week behind a computer, or may have information technology lessons in small groups. The majority of homes still do not possess a computer.

Second, most teachers see computers as a supplement to traditional lessons, rather than as a replacement for them. Pupils can use computers to complete tasks within the standard curriculum, such as producing a research project or investigating current events. But few educators see information technology as a medium that can substitute for learning from and interacting with human teachers. The challenge for teachers is learning to integrate new information technologies into lessons in a way that is meaningful and educationally sound.

Education and the technology gap

Whether the new technologies will have the radical implications for education claimed by some is still an open question. Critics have pointed out that even if they do have major effects, these may act to reinforce educational inequalities. Information poverty might be added to the material deprivations which currently have such an effect on schooling. The sheer pace of technological change and the demand of employers for computer literate workers may mean that those who are technologically competent 'leapfrog' over people who have little experience with computers.

Some already fear the emergence of a 'computer underclass' within Western societies. Although developed countries have the highest levels of computer and internet usage in the world, there are stark inequalities in computer use within those societies. Many schools and colleges are suffering from underfunding and long-standing neglect; even if these institutions become beneficiaries of schemes that distribute second-hand computer hardware to schools, they must gain the technical expertise and ability to teach IT skills to pupils. Because the market for computer specialists is so strong, many schools are struggling to attract and keep IT teachers, who can earn far greater incomes in the private sector.

Yet the technology gap within Western societies appears minor compared to the 'digital divide' separating Western classrooms from their counterparts in the developing world (see chapter 15 'Mass Media and Communications'). As the global economy becomes increasingly knowledge based, there is a real danger that poorer countries will become even more marginalized because of the gap between the information rich and information poor.

According to the UNDP Human Development Report (1999), internet access has become me new line of demarcation between the rich and me poor. South Asia, with 23 per cent of the world's total population, has less man 1 per cent of world internet users. In Africa there are a mere seven internet hosts per 1 million people. A high proportion of these are located in South Africa, by far me most developed and prosperous African nation.

Information technology enthusiasts argue that computers need not result in greater national and global inequalities – that their very strength lies in their ability to draw people together and to open up new opportunities. Schools in Asia and Africa that are lacking textbooks and qualified teachers can benefit from the internet, it is claimed. Distance learning programmes and collaboration with colleagues overseas could be the key to overcoming poverty and disadvantage. When technology is put in the hands of smart, creative people, they argue, the potential is limitless.

While technology can be breathtaking and open important doors, it has to be recognized that there is no such thing as an easy 'techno- fix'. Underdeveloped regions struggling with mass illiteracy and lacking telephone lines and electricity need an improved educational infrastructure before they can truly benefit from distance-learning programmes. The internet cannot be substituted for direct contact between teacher and pupils under these conditions.

Privatizing education

As we have already seen, education is one of the most contested political issues in Britain today. Successive governments have introduced wide-ranging reforms in an attempt to raise educational outcomes and prepare young people better for entry into adult life. The United Kingdom is not alone in giving high priority to improving its state educational system; in the United States and other industrialized countries education is one of the issues of greatest concern to politicians and citizens alike. One reason for this is that expectations of the educational system are high. Schools play a critical role in socializing children, providing equal opportunities, producing a capable workforce and creating an informed and active citizenry.

Yet even in the richest countries in the world, where the resources devoted to education are extensive, these objectives are not always met. National examinations reveal surprisingly low levels of functional literacy (see box; p. 499) – reading and writing skills that meet the tasks of everyday living – and there are concerns that overall academic standards have declined over time. Within most state education systems, some schools attain high results while others persistently underachieve. In many areas, parents and children alike express dissatisfaction wit the quality of education received through state schools, while teachers and others responsible for education are often faced with large classes, limited resources and difficult working conditions. While some parents are able to provide their children with private education, the vast majority of families rely on state schools and expect that the educational system funded by their own tax payments will provide a quality, education for their children.

One of the main tasks confronting educational reformers is how to reproduce successful outcomes from the best schools in schools that are struggling. In responding to this challenge, there has been a growing willingness in the United Kingdom and the United States over the past decade to experiment with new forms of school administration that combine the public (state) funding of schools with private management techniques. In instances where persistently underperforming schools are unable to improve their results, local educational authorities have invited bids from private contractors to take over the management and day-to-day administration of state school systems. As a growing number of private companies and 'educational management organizations' become involved in administering educational activities, some observers believe we are witnessing a move towards the privatization of education.

Baksh, I. 1986. "Education and equality of opportunity". In *Caribbean Sociology: Introductory Readings*. Edited by Barrow, C. and R. Reddock. 2001. Kingston: Ian Randle Publishers, pp. 712–725.

This study addresses the issue of equality of opportunity in Trinidad and Tobago. It examines (1) the social-class background of students attending two types of secondary schools and (2) differences between the two types of secondary schools regarding students' self concepts, attitude toward technical and academic forms of education and educational and occupational expectations. The results of the investigation enable one to suggest that despite – government and the society's expectations – education is likely to function as a means of restricting or controlling social mobility from the lower classes, that true equality does not exist since students from lower-class backgrounds are assigned in disproportionately large numbers to junior secondary (as compared with 'grammar') schools where they an more likely to be oriented toward a technical or vocational type of education and toward lower educational and occupational goals.

Introduction

This paper examines whether education plays a role in perpetuating social inequality in Trinidad and Tobago. In recent times, there have no doubt been changes in the social structure of that country within equalities of the type inherited from the period of European control being somewhat altered. Disparities in wealth, status, power and opportunity have been a conspicuous feature of the society since the earlier years of its status as a European possession. Such disparities occurred, for example, in what might loosely be termed the 'colour-class' system of stratification that became: entrenched in Spanish Trinidad during the eighteenth century and persisted after British conquest of the colony in 1797, a system in which Whites, Coloureds (people with mixtures of White and Negro blood) and Negroes were differentially rewarded with respect and status, wealth, power and privilege. The colour-class structure was complicated to some extent by the presence of poor Whites and ultimately by the arrival of other ethnic groups, including the East Indians.

Opportunities for non-Whites – customarily worse than those for other groups – changed only slowly during the nineteenth century and the first half of the twentieth century, so that social inequality along the lines of color remained a major characteristic of the society. Around 1962, the year in which Trinidad and Tobago gained constitutional independence from Britain, Whites and Coloureds were highly over-represented in professional, technical, administrative, managerial, executive, commercial and financial occupational categories, while Negroes were seriously under-represented in them. The East Indians, who together with Negroes were eventually to constitute about eighty per cent of the total population, made some gains in opportunity. In the nineteenth century some had become small-scale land owners while others had entered commerce as shop-keepers, but even during the 1890s there were few East Indian professionals besides teachers and religious leaders if indeed the latter, among whom were included Hindu priests and the like, might be designated 'professional' – and East Indians were unrepresented among artisans. By 1931, East Indians still formed a large contingent among labourers and peasant proprietors but they were also fairly well represented in teaching, business, clerical work, the government service, medicine and law. Nevertheless, around the time Trinidad and Tobago secured constitutional independence, East Indians – as well as other non-White groups – still enjoyed a disproportionately small representation at the higher and more prestigious occupational levels in the society.

The rise of the People's National Movement to political power in 1956 led to intensified government efforts in subsequent years to improve opportunity for disadvantaged groups, with a variety of measures being taken to foster greater social justice. For

example, free secondary education was made available to students qualifying – on the basis of 'objective', standardized achievement and intelligence tests – for places in public secondary schools: large numbers of scholarships in a variety of fields were awarded to citizens of Trinidad and Tobago; employment regulations were introduced requiring employers to give priority to Trinidad and Tobago nationals in their recruitment efforts, and extensive development plans were implemented with one of their objectives, the creation of employment avenues and career possibilities. However, one of the most significant strategies embraced in an effort to reduce inequality was the modification of provisions for secondary education. A 'Draft Plan' adopted by the government provided initially for the restructuring and expansion of public secondary education during the period 1968–1983. Since the introduction of the plan in 1968 revisions have been made regarding both its specific educational provisions and the schedule for achievement of one of its major goals, free secondary education for all primary school graduates.

At present, students continue to be selected for the available places in public secondary schools through an essentially objective-type Common Entrance Examination. The 'successful' students, whose numbers have depended on the number of places available for first-year students in the public secondary schools and have thus increased annually with the establishment of additional schools, follow basically one of two routes in secondary education. Some are assigned to traditional secondary schools – to be referred to in this paper as 'grammar schools' – largely because of superior performance in the Common Entrance Examination. Here they pursue an essentially academic programme of studies. The Government has been attempting to persuade denominational education authorities, who share responsibility with them for operating many of the grammar schools, to diversify their secondary school curricular offerings so that they might provide alternatives to the traditional academic education but progress in this area has been rather 'unsatisfactory'.

The remainder of the 'successful' Common Entrance Examination candidates are assigned to junior secondary schools where they receive a general education along with pre-vocational studies in such areas as Agriculture, Industrial Arts and Home Economics. After three years of junior secondary schooling these students proceed to senior comprehensive schools. At this level, a minority can pursue a primarily academic programme but most students combine a general education with specializations along technical or vocational lines. Conventional vocational schools are being integrated into the secondary school system, thus further strengthening the technical/vocational element in public secondary education. To a large extent, though certainly not completely, public secondary education in Trinidad and Tobago has a dual structure, with grammar schools on the one hand, and the junior secondary-senior comprehensive sequence on the other, tending to offer the students somewhat different educational, and hence career, possibilities. In the respect, the system reflects the structure of public secondary education in advanced industrial societies in which educational streaming or tracking is practiced.

Research in modern industrial societies however, has repeatedly revealed a social-class bias in the selection of students fro different types of secondary education, middle class students being more likely than lower class ones to gain admission to the more prestigious tracks or types of school – usually the academic ones. Furthermore, tracking generally has certain concomitants: students in less prestigious tracks are likely to have lower estimates of their ability and lower educational and occupational expectations. Lower-track students tend, also to view academic studies less favourably. They have a 'passive involvement' in school, allegedly attributing their inferior educational fate to lower ability. Indeed, it has been suggested that the educational system legitimizes inequality by successfully persuading the young that the mechanisms of selection and the process of social stratification are fair and that 'failure arises largely from deficiencies in the individual.

In light of the above research findings, it seems worthwhile to investigate similar dimensions of the schooling process in Trinidad and Tobago. Should research results disclose the occurrence of parallel trends in that society, it would seem reasonable to conclude that the educational system might well be a means of perpetuating inequality rather than eliminating social injustice. Accordingly, the following questions are raised in the present study:

1. Are there 'social class' differences in admission of students to junior secondary and grammar schools?

2. Do students in junior secondary differ from those in grammar schools regarding self-concept of ability?

3. Do students in junior secondary differ from those in grammar schools regarding attitude toward and preference for academic and technical education?

4. Are there differences between the two types of schools in levels of educational and occupational expectations?

It might be observed here that equality of opportunity is widely thought to depend substantially upon equality of educational opportunity, the latter being usually measured in any of four different ways. One of these, equality of access, focuses on the degree to which different groups have access to similar basic levels of education (e.g. secondary) and therefore have the opportunity to qualify for higher levels of education. Another, equality of participation, examines the extent to which different groups actually secure access to specific levels and types of education. A third, equality of educational results, concerns itself with the extent to which groups enjoy equal academic success. A fourth, equality of effects on life-chances, studies the degree to which groups are helped by education to be equally successful in life. The present paper deals essentially with equality of effects on life-chances in-so- far as these chances are shaped by such factors as participation in specific types of education and educational and occupational expectations.

Research Methodology

The methodology of this study will be described under three sub-headings: (1) Sample and Data Collection, (2) Description and Measurement of Variables and (3) Data Analysis

Sample and Data Collection

The data analyzed in the present investigation are taken from a questionnaire administered to a sample of secondary school students in Trinidad. Six randomly selected junior secondary schools, situated in urban, suburban and rural areas and apparently highly representative of this type of school, were asked to co-operate in the study and all third-year students in attendance completed the questionnaire. The third-year students in five randomly selected grammar schools, including both older and newer institutions, were also invited to complete the questionnaire. The choice of students at this level was intended to provide the most widely representative sample at a stage when educational and occupational plans were likely to be fairly realistic. As schools are added to the system year by year the percentage of the appropriate age-group obtaining school places increases annually. Thus, this percentage is higher for third-year than for fourth- or fifth-year ones, so that third-year secondary school students provide a broader representation of the population from which students entering secondary education are drawn. Also, toward the end of their third and final year, the time at which the questionnaire was administered, junior secondary students must make important decisions regarding their specializations in the senior comprehensive school. In grammar schools, it is usual at this stage for final subject selections to be made in anticipation of the next two years of study for the external examinations. Student decisions in both types of schools are likely to be fairly realistic since they will tend to be related to career goals. The total sample comprises 1,079 junior secondary

and 534 grammar school students, with both sexes included.

Description and Measurement of Variables

Data related to six variables – social class, self-concept, attitude toward academic/technical education, preference for academic/technical education, educational expectation and occupational expectation – form the basis for comparisons between junior secondary and grammar schools. Social class is operationalized as socioeconomic status (SES), the indicator of SES being occupation of the head of the household to which the student normally belonged. These occupations as reported in the completed questionnaires are assigned to one of the following six categories which are presented 'here in descending rank order: 1 (e.g., doctor, lawyer, engineer, manager of a large company), 2 (e.g., teacher, nurse, geologist, accountant), 3 (e.g. salesman, secretary, receptionist, civil service clerk), 4 (skilled worker, foreman), 5 (semi-skilled worker) and 6 (unskilled/unemployed worker/person). The use of this indicator of SES duplicates the methodology of previous researchers interested in secondary school selection and student aspirations in Trinidad and Tobago. The practice is also consistent with that of work done elsewhere in the Caribbean.

Students' self-concept of ability is measured by two items. One asks the student to indicate the proportion of school subjects in which he thinks he has generally done very well ('e.g., always passing with high marks, always getting most of the work correct, etc.'), the possible responses on a five-point scale ranging from 'All' to 'None'. The second item clearly invites comparison with other students. It asks students to disclose the extent to which they agree with the statement. 'Other people always seem able to do better at school work than I can', the responses on a five-point scale varying from 'Agree strongly' to 'Disagree strongly'. In view of the paucity of items measuring self-concept of ability, the results of the present investigation relating to this variable must be regarded as somewhat tentative.

Attitude toward academic/technical education at the secondary level is measured by two items. One asks students to state which of the two types of secondary education in their opinion makes it easier for a young person to get a job in Trinidad and Tobago and the other which of the two types is likely by itself to bring a person better pay or salary when he begins working. Again, both items are five-point, Likert-type scales. The fourth and related variable, actual preference for academic/technical secondary education, is measured in the same way. Students are asked which of the two types of education they would prefer if they could make their own choice, the responses from which they might cl1oose ranging from 'The academic much more than the technical' to 'The technical much more than the academic'.

Educational expectation is defined as educational plans in terms of years of education students 'definitely plan to obtain after completing five years of secondary education'. Students could select from among six responses, the lowest being 'No education after my fifth year (getting a job)', and the highest 'After my fifth year, 7 or more years of education (e.g., medicine, engineering. Ph.D. degree)'. It might be noted that 'number of years of education' is not a vague or meaningless statistic : it refers in the item to specific levels of education associated with particular kinds of occupational choices. Occupational expectation, the sixth variable pertinent to this study, is determined from students' responses to the following questionnaire item; 'Name the job you think you are most likely to have as an adult.' Student responses to this item are classified in the same manner as for SES and are consequently distributed among six categories.

Data Analysis

In the analysis of the data, cross-tabulations are carried out for the type of school (i.e., junior secondary and grammar) and the categories in each questionnaire item pertinent to the study. Cross-tabulations are useful because they permit the calculation of percentages and hence the making of quantitative comparisons. At the same time, the chi-square and

other measures of association might be calculated, enabling the researcher to determine how likely it is that a systematic relationship occurs between two variables. In the present investigation, the chi-square technique is employed and all relationships are tested for statistical significance, the .05 level of probability serving as the minimal point for assuming a systematic relationship between variables exists. As will be seen below, many relationships are statistically significant at an even more rigorous level – at below the .01 level of probability.

Results and Discussion

It is apparent from Table 46.1 that among students admitted to public secondary education the various SES groups are not equally assigned to the two types of secondary school. Most of the admissions from the top two SES categories enter the grammar schools whereas only a minority of the admissions from the lower SES groups (i.e., Categories 4, 5 and 6) gain access to such schools, the percentages in latter case ranging from approximately 17% to 31%. Thus,

Table 46.1

Admissions of SES Groups to Junior secondary and Grammar Schools

			Type of school		
SES			**Junior Secondary**	**Grammar**	**N**
High	1	%	9.4	90.6	
		N	(3)	(29)	(32)
	2	%	39.6	60.4	
		N	(101)	(154)	(255)
	3	%	61	39.0	
		N	(141)	(90)	(231)
	4	%	68.6	31.4	
		N	(300)	(137)	(437)
	5	%	82.6	17.4	
		N	(152)	(32)	(184)
Low	6	%	80.8	19.2	
		N	(382)	(91)	(473)
		N	(1079)	(533)*	(1613)

*No of missing values = 1

Chi-Square = 199.43 P Less Than .01

most of the lower SES candidates selected for public secondary education receive their initial secondary education receive their initial secondary education in junior secondary schools. Clearly, the lower SES students do not have the same chances as their higher SES counterparts of gaining entry to grammar schools. More precisely, it might be calculated from the statistics in the table that about 77% of the lowest three SES groups go to junior secondary and about 23% to grammar schools. Conversely, about 53% of the highest three SES groups go to grammar and about 47% to junior secondary schools. One result of such trends in admission is that the junior secondary schools are dominated by lower SES students. Again, it might be calculated from the numbers given in Table 46.1 that approximately 77% of the student body in the junior secondary schools participating in this study is made up of students from the lowest three SES categories while about 49% of the student body – in the grammar schools is so constituted.

It might be estimated also that in the schools involved in this investigation approximately 68% of the students are of lower SES background, a figure which probably reflects quite closely the SES distribution of the total population in Trinidad and Tobago. The random nature of school selection for the study as well as the wide distribution and apparent representativeness of the schools themselves are features which would ensure an intake of students mirroring reasonably well the SES distribution of the total population. Given these features, and considering the proportion of students of lower SES background to the total sample, a fair quota system would give the three lowest SES groups about 68% of the places in each of the two types of secondary schools. Apparently, however, the lower SES groups are somewhat over-represented in the junior secondary and rather more heavily under-represented in the grammar schools. The evidence seems to suggest that candidates from differing social origins tend to be assigned disproportionately to d1e two types of secondary school.

It appears, therefore, that allocation to types of secondary school in Trinidad and Tobago is performing a somewhat similar function to that of tracking in many modern industrial societies with respect to social class differences in educational opportunity. Two major competing explanations for SES disparities in tracking in such societies have been the hereditarian and the environmental. With reference to the first, it has been argued that because of social mobility out of the lower classes over time and extensive intermarriage within classes an inferior genetic 'pool' has been left behind in the lower classes, resulting in inferior performance in intelligence and achievement tests. Such reasoning appears to have little relevance to Trinidad and Tobago. Until recently, the structure of this former colonial society limited upward social mobility on the part of the local-predominantly coloured-population. The expansion of secondary and tertiary schooling is a fairly recent phenomenon and most students in the present sample in all likelihood constitute the first generation of their families to receive a post-primary education, with the result again that only limited upward social mobility out of the lower classes has occurred. The notion that genetic differences are the explanation for differential SES access to specific forms of education appears untenable with reference to Trinidad and Tobago. Alternative explanations – environmental ones such as cultural bias in tests, the literacy level of the home, and the like – are perhaps more convincing. If innate inferiority cannot be advanced as the basis of the SES differences in educational access, it must be concluded that the lower SES students are being unfairly penalized in the selection process and that genuine inequality of opportunity exists.

Given that most (about 77%) lower SES students in the sample attend junior secondary schools while the majority (especially when only SES Categories 1 and 2 are considered) of the higher SES counterparts go to grammar schools, it is interesting to determine whether there are differences between the two types of schools with respect to the other student attributes with which this study is concerned. If there are, this would seem to indicate the occurrence of systematic educational bias in favour of higher SES and against lower SES students.

Table 46.2

Self-Concepts and Type of School (First Item)

Self Concept		Type of school		
		Junior Secondary	Grammar	N
Positive 1	%	2.1	3.4	
	N	(23)	(18)	(41)
2	%	38.6	38.1	
	N	(417)	(203)	(620)
3	%	46.8	44.5	
	N	(500)	(237)	(737)
4	%	12.6	14.1	
	N	(136)	(175)	(211)
Negative 5	%	0.3	0.0	
	N	(3)	(0)	(3)
	N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 4.55 P Greater Than .05

With regard to self-concept of ability, the results are unclear. On the item which does not require explicit comparisons with other students, there appears to be no significant difference between the two groups of students. Table 46.2 shows that the differences are in the expected direction. For example, 3.4% of the grammar school students – compared with 2.1 % of their junior secondary counterparts – claim to 'have generally done very well' in all of their school subjects. However, the chi-square value for the table does not achieve statistical significance, so that there is no basis on which to assert with confidence that a systematic relationship occurs between type of school and self-concept of ability. On the second item measuring self-concept of ability – the item clearly inviting comparison with other students – the results are far more clear-cut, the chi-square value being statistically significant below the .05 level of probability. In Table 46.3, if Row 1 is added to Row 2 and Row 4 to Row 5, it will be clearly seen that grammar school students (37.9%) are more inclined than junior secondary ones (31.7%) to disagree with the statement that other people always seem able to do better at school work than they can, white junior secondary students (57.9%) tend more than grammar school ones (51.4%) to agree with that statement. The evidence presented here suggests that grammar school students have somewhat more positive self-concepts of ability than junior secondary school students. In this connection, tracking in secondary education in Trinidad and Tobago seems to have an effect rather similar to that of the same practice in North America and other modern industrial societies: it results in the segregation of a group of students with somewhat poorer self-concepts of ability.

Table 46.3

Self-Concepts and Type of School (Second Item)

Self Concept			Type of school		
			Junior Secondary	Grammar	N
Positive	1	%	3.3	4.9	
		N	(36)	(26)	(62)
	2	%	28.4	33.0	
		N	(306)	(176)	(482)
	3	%	10.4	10.7	
		N	(112)	(57)	(169)
	4	%	44.6	42.4	
		N	(481)	(226)	(707)
Negative	5	%	13.3	9.0	
		N	(144)	(48)	(192)
		N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 10.86 P Less Than .05

The results regarding attitude toward and preference for academic and technical types of education are highly interesting. First, there is a clear difference between junior secondary and grammar school students with respect to views of the usefulness of the two types of education for getting a job in Trinidad and Tobago. When the appropriate percentages In Rows 4 and 5 of Table 46.4 are totalled; it is found that 50.5% of the junior secondary as against 37.0% of the grammar school students regard a technical type of education as making it easier for a young person to get a job. On the other hand, similar calculations for Rows 1 and 2 disclose that 35.2% of the grammar school but only 19.7% of the junior secondary school students perceive an academic type of education as making it easier for a young person to get a job in Trinidad and Tobago. The chi- square value for Table 46.4 is statistically significant at below the .01 level of probability. In effect, these results mean that students in each type of school tend to regard the kind of education they are in the process of receiving as more useful than the other for getting a job.

Table 46.4

Perception of Academic/Technical Education and Type of School (Job Opportunity)

Positive Perception			Type of school		
			Junior Secondary	Grammar	N
Academic	1	%	10.8	16.3	
		N	(116)	(87)	(203)
	2	%	8.9	18.9	
		N	(96)	(101)	(197)
	3	%	29.8	27.8	
		N	(322)	(148)	(470)
	4	%	21.3	22.7	
		N	(230)	(121)	(351)
Technical	5	%	29.2	14.3	
		N	(315)	(76)	(391)
		N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 71.95 P Less Than .01

Much the same results are obtained in relation to the perceived monetary rewards of the two types of education. Students in each type of school display a strong tendency to view the kind of education they are destined to complete as likelier than the other to bring them better income. Again, the chi-square value for the table is significant at below the .01 level of probability, enabling us to assert with considerable confidence that a systematic relationship exists between type or school (tracking) and student perceptions of the economic benefits of academic and technical varieties of education. Clearly, students tend to be positively disposed toward the kind of education they are in the process of receiving.

This favourable disposition on the part of students toward the type of education into which they have already been tracked manifests itself again in students' views regarding the kind of education preferred for the following two years of their secondary education. As Table 46.6 shows, there is a relationship between type of school and preference for academic and technical education. Combining the percentages in Rows 3 and 4 and also in Rows 1 and 2 reveals that 48.5% of junior secondary compared with 27.0% of grammar school students would like a technical education, while 62.5% of grammar compared with 40.2% of junior secondary school students would like an academic education. Obviously, there are numerous exceptions to the dominant preference within each type of school but the overall trends are quite clear, a point underscored by the fact that the chi-square value for Table 46.6 is statistically significant at below the .0 1 level of probability.

Table 46.5

Perception of Academic/Technical Education and Type of School (Income)

Positive Perception			Type of school		
			Junior Secondary	Grammar	N
Academic	1	%	17.4	28.1	
		N	(188)	(150)	(338)
	2	%	10.1	21.0	
		N	(109)	(112)	(221)
	3	%	15.5	12.8	
		N	(167)	(68)	(235)
	4	%	15.1	14.8	
		N	(163)	(79)	(242)
Technical	5	%	41.8	23.2	
		N	(451)	(124)	(575)
		N	(1079)	(533)*	(1611)

*No of missing values = 1

Chi-Square = 86.89 P Less Than .01

Table 46.6

Perception for Academic/Technical Education and Type of School

Stronger Preference			Type of School		
			Junior Secondary	Grammar	N
Academic	1	%	22.9	31.7	
		N	(247)	(169)	(416)
	2	%	17.3	30.8	
		N	(187)	(164)	(351)
	3	%	11.3	10.5	
		N	(122)	(56)	(178)
	4	%	22.7	18.4	
		N	(245)	(98)	(343)
Technical	5	%	25.8	8.6	
		N	(278)	(46)	(334)
		N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 95.78 P Less Than .01

The results presented in Tables 46.4, 46.5 and 46.6 suggest, therefore, that to a large degree secondary school students in Trinidad and Tobago view in a positive light the sort of education their assignment to a specific kind of school is likely to bring them. This finding is comparable to that of research in many advanced industrial societies which reports that students in non-academic tracks tend to reject the academic values of the secondary school. What is interesting about the present findings is that junior students often regard a technical education not simply as equal to but rather as superior to an academic education in terms of economic utility and desirability.

The explanation for the marked difference between the two types of schools regarding perception of academic and technical education is not obvious. The perceptions common among grammar school students are not difficult to understand: an academic education has long enjoyed great prestige and been viewed as a passport to diverse forms of white-collar and professional employment. However, the superior status given to technical education by junior secondary school students is puzzling. Cognitive dissonance theory might suggest a possible explanation. According to this theory, if an individual confronted by alternatives accepts one which has some negative aspects and rejects another which has some attractive features a state of cognitive dissonance – which is psychologically uncomfortable – often results. Discomfort tends to be lessened when the individual seeks out information reducing the dissonance and avoids information increasing it. In Trinidad and Tobago, an academic education is in reality attractive. Being unlikely to have access to it, some students probably focus on reports regarding the demand for workers with technical

skills; high-paying technical jobs in mining and industry and the like, and consequently inflate the attractiveness of a technical education, so that the type of education they are in the process of receiving begins to appear to them to be an excellent choice. A competing explanation might be the advice received from personnel in junior secondary schools. Further research is needed to shed light on this issue.

Whatever the explanation for the difference between grammar and junior secondary schools regarding student perception of academic and technical education, an important function of tracking into the two types of secondary school seems to be to develop a positive orientation among large numbers of junior secondary students toward a technical type of education. These students are diverted from an academic education and regard the alternative in a favourable light. They are unlikely therefore, to view the selection and channelling processes of the educational system as being unfair. If the students' subsequent opportunities prove to be unequal to those of their grammar school counterparts they are unlikely to attach blame for their fate to an educational system they perceive as giving them the kind of education they prefer. Since they have a lower estimate of their ability than grammar school students they might attribute relative 'failure' to intellectual deficiency on their part.

Table 46.7

Educational Expectation and Type of School

Educational Expectation			Type of School		
			Junior Secondary	Grammar	N
High	1	%	11.0	28.7	
		N	(119)	(153)	(272)
	2	%	10.9	18.9	
		N	(118)	(101)	(219)
	3	%	8.9	10.7	
		N	(36)	(57)	(153)
	4	%	25.9	19.3	
		N	(279)	(103)	(382)
	5	%	31.2	15.9	
		N	(337)	(85)	(422)
Low	6	%	12.0	6.4	
		N	(130)	(34)	(164)
		N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 133.68 P Less Than .01

Table 46.8

Occupational Expectation and Type of School

Occupational Expectation			Type of School		
			Junior Secondary	Grammar	N
High	1	%	10.2	29.1	
		N	(110)	(155)	(265)
	2	%	29.2	43.5	
		N	(315)	(232)	(547)
	3	%	24.3	18.0	
		N	(262)	(96)	(358)
	4	%	35.7	9.2	
		N	(385)	(49)	(434)
	5	%	0.5	0.2	
		N	(5)	(1)	(6)
Low	6	%	0.2	0.0	
		N	(2)	(0)	(2)
		N	(1079)	(533)*	(1612)

*No of missing values = 1

Chi-Square = 200.01 P Less Than .01

As the results presented in Tables 46.7 and 46.8 indicate, grammar school students are likely to differ from those in junior secondary schools with respect to opportunity. While appropriate longitudinal studies have not been conducted in Trinidad and Tobago, research elsewhere discloses that educational and occupational expectations are important predictors of actual educational and occupational attainment, and in Trinidad and Tobago there are substantial differences between junior secondary and grammar school students regarding educational and occupational expectations. The results for the cross-tabulation between Type of School and Educational Expectation are given in Table 46.7. The chi-square value for this table is statistically significant at below the .0 1 level of probability, so it might be asserted with considerable confidence that a systematic relationship exists between the two variables. Larger percentages of junior secondary students are found in the lower categories and of grammar school students in the higher categories of Educational Expectation. It might be calculated from the percentages in Table 46.7 that 69.1% of junior secondary but 41.6% of grammar school students are found in categories 4, 5 and 6. That is, they expect to complete no more than two years of schooling beyond their basic five-year secondary education. On the other hand, 58.3% of grammar but 30.8% of junior secondary school students are found in Categories 1,2 and 3; they expect to obtain three or more years of schooling beyond five years of secondary education.

The reults relating to Occupational Expectation show similar trends. For example, it might be seen from Table 46.8 that grammar school students tend more than those from junior secondary schools to select the top two occupational categories (representing mainly professional, managerial and other such pursuits). The table reveals that 72.6% of grammar but 39.4% of junior secondary school students expect to pursue occupations in the top two categories. Again, the chi-square value for the table is statistically significant at below the .01 level of probability, a powerful indication that the differences between the two groups of students are quite pronounced.

Secondary education in Trinidad and Tobago appears to place the lower social classes at a disadvantage because students from such backgrounds are disproportionately assigned to junior secondary schools. In such schools, students tend to develop poorer self-concepts, a more positive orientation toward a technical type of education, and lower educational and occupational expectations (with lower educational and occupational status being a likely outcome). Since lower SES students constitute the vast majority (about 77% in the student body of the junior secondary schools), they are the ones most likely to be affected by such trends. There is a real danger that the educational system, rather than eliminating social injustice, actually perpetuates a certain degree of social inequality in Trinidad and Tobago.

Conclusions

While the colour-class system of stratification inherited from colonial times has not completely disappeared from Trinidad and Tobago, considerable progress has been made in creating a society in which colour is a much less significant factor with respect to social equality than it used to be. Great faith has been placed on education as a potential equalizer, an instrument for fostering social justice. It appears, however, that education is not fully successful in accomplishing such a task. No doubt, a fair amount of upward mobility from the lower classes is likely to occur. Close to half the students in the grammar schools in the present study are of lower-SES origins and many of them will in all probability enter the more prestigious and financially-rewarding occupations. Sufficient upward social mobh"ity from the lower-classes is likely to occur to sustain the illusion that equality of opportunity has been achieved.

The results presented in this investigation suggest that in reality education is likely to function as a means of restricting or controlling social mobility from the lower classes, that true equality does not exist since students from lower SES backgrounds are assigned in disproportionately large numbers to junior secondary schools, Therefore being more likely to be oriented toward a technical or vocational type of education and to lower educational and occupational goals. Since it cannot be argued that in contemporary Trinidad and Tobago society the lower classes are inherently or innately inferior to others in intellectual ability, the alternative conclusion is that the lower classes are not receiving a fair share of the opportunities in the society. What appears to be happening in Trinidad and Tobago is that the colour-class system of stratification is being replaced by a class system more like that in many advanced industrial societies, one in which opportunity is related to class position rather than to colour and in which inequality tends to a conspicuous degree to be transmitted from one generation to another.

Apparently, the educational system in Trinidad and Tobago tends to playa role somewhat similar to that performed in advanced industrial societies. It discriminates to some extent against the lower social classes in the selection process and orients the young toward educational and occupational choices that are strongly related to social class background, the ultimate result most probably being the maintenance of some rigidity in the class structure. At the same time, it appears, the school system tends to legitimize social inequality to some extent by convincing the young that the stratification system is fair since in large measure they have obtained the kinds of education they prefer. Even if some lower SES youths might prefer an academic education and the types of opportunities to which it provides access, they might well be inclined to blame failure to achieve these on their own intellectual deficiencies – at least those

attending junior secondary schools, since they tend to possess poorer self-concepts of ability – rather than on the educational system or the society.

The importation of notions. structures and practices relating to education from advanced industrial societies is probably a significant factor affecting education in Trinidad and Tobago and therefore generating the consequences being discussed here. For example, the view of intelligence as representing fixed and measurable potential – rather than as a fluid entity dependent substantially on environmental factors and social influences or expectations – enjoys wide currency in advanced industrial societies, although tests constructed to measure intelligence have been criticized not only for their cultural bias but also for their failure to allow for differential social forces affecting the amount of potential students display at any given point in time. It is argued that individuals tend to perform at the level at which their society – and particularly significant people in their lives – expect them to perform.

It is highly probable, of course, that factors external to the school system contribute to social c1ass inequalities in opportunity. For example, students may be influenced by the types of educational models provided by parents as well as by the level of parents' ambitions for their children. The findings of the present investigation suggest, however, that the educational system itself in all likelihood helps to foster a certain degree of inequality of opportunity in Trinidad and Tobago. Indeed, it would not be surprising to find that these results can be generalized to the educational systems of other Commonwealth Caribbean countries. Should future research confirm the existence of such trends, a critical examination of policy and practices in public secondary education seems necessary if steps are to be taken to ensure that the educational system promotes genuine equality of opportunity.

Hamilton, M. 1991. A Review of Educational Research in Jamaica. In *Caribbean Sociology: Introductory Reading*. Edited by Barrow, C. and R. Reddock. 2001. Kingston: Ian Randle Publishers, pp. 685–711

Introduction

> 'Even the most casual observer of the world of educational research must notice the wide variety of circumstances and settings in which such research takes place.' (Shaeffer. 1983. p. 7)

This paper is intended to restrict its concerns to Jamaica, specifically, yet, once one starts to examine educational research offerings within this limited setting, it becomes apparent that Shaeffer's comments still apply. Jamaican educational research reflects great variety, and consequently, offers any reviewer the challenge of delimiting the ambit of the task. The problem of selection is further compounded by the fact that the quantum of educational research material concerning Jamaica is fairly large. According to Miller (1984):

> 'The institutionalization of educational research in Jamaica started in 1952 with the establishment of the Department of Education of the University of the West Indies ... (it) began in Jamaica at least a decade before any other Caribbean country ... (thus) it is not surprising to find that Jamaica has the largest and most dynamic education research enterprise of the English-speaking Caribbean states' (p.73)

At present, educational research is conducted mainly under the auspices of the Ministry of Education, the Faculty of Education and other bodies of the University of the West Indies (UWI), as well as other tertiary institutions and certain private consultancy organizations which undertake special projects from time to time. Such research is documented mainly in the libraries of the Ministry of Education and at the UWI, including the Documentation Centre of the Faculty of Education. There are theses, studies, journal articles, monographs and occasional papers. The Caribbean Journal of Education, Caribbean Quarterly, Social and Economic Studies, and Jamaica Journal are the primary sources available at present.

The scope of educational research varies widely; most is, however, centered around some level of schooling/grade of the formal system as defined in Figure 45.1.

Figure 45.1

Flow Doagram, Pre-Primary, secondary and Tertiary Levels

This paper attempts to review educational research mainly in the formal system, during the decades of the 19705 and 1980s, although in some instances, reference is made to earlier research, especially where this serves to pro- vide a contextual setting to which the more contemporary studies relate. The intention is to select for review, pieces of research which best provide information on the following three areas of concern:

1. Access to education at the different levels of the educational system;
2. Achievement at the different levels; and,
3. Socialization by school, home and mass media.

Background Data

Basic educational statistics for the primary and secondary levels have been provided, covering areas such as student enrolment, teaching force (including the teacher/pupil ratio and teacher attrition), teacher training (enrolment and graduation), external examinations. and expenditure on education. These data are intended to give the reader some background which will allow the review to be placed in context.

Student Enrolment

Enrolment figures for the 1985/86 academic year are shown in Appendix D, the main features of which indicate a school-age population of 577,851 concentrated in grades 1–6 of primary and all-age schools (the 6–11 age category), followed by grades 7–11 of the secondary schools (the 12–17 age group). A wider picture of the school-age cohort over the period, 1983/84 to 1986/87, is provided in Figure 45.2.

Figure 45.2

Enrolment in Primary and Selected Secondary Educational Institutions: 1983–87

The Teaching Force

The official figures for 1985/86 register a total of 9,913 teachers working at the primary level and 7,958, at the secondary level, representing a total of 17,871. Of these, 90.2% have been classified as 'trained'. Teacher/pupil ratios are 1:42 at the primary, and 1:20 at the secondary level. The large majority of teachers through-out the system are female (78.5%).

The teacher attrition rate recorded for the year, 1986/87, at primary and all-age schools was 1.3% and 4.0% respectively, resulting in a lowering of the teacher/pupil ratio to 1:43 (both school types combined) for this year, as against 1:42 in 1985/86 (Economic and Social Survey, 1987). The situation reported at the secondary level, however, was said to have improved slightly during this period, Although the actual data were not available at the time of writing.

Teacher Training

Enrolment and graduation figures for teachers' colleges and teacher education departments of other tertiary level institutions are provided in Appendix D for 1985/86. It is instructive to record that the years, 1983/84 to 1986/87 showed a distinct fall-off in enrolment at teachers' colleges, from 3,889 in 1983/84, and 4,223 in 1984/85, to 2,889 in 1985/86, and 2,663 in 1986/87. According to the Economic and Social Survey, 1987, this could be attributed to two factors – firstly, budgetary constraints, and secondly, a reduction in the number of first-year students. King (1986) has also reminded that in 1985, the Ministry of Education withdrew its financial support for the preliminary year programme in teacher education – a situation which relates to the two points mentioned above. Among the possible effects of abandoning the programme noted by King were, the underutilization of college facilities; a reduction in enrolment and consequently, the necessity to reduce the size of staff; closure of one outlet for graduates of new secondary and all-age schools to receive professional training; and an increase in staffing instability due to uncertainty about the future of the colleges, as well as teacher education in general (p.10).

External Examinations

Student data on enrolment and performance in the General Certificate of Education and Caribbean Examinations' Council's examinations are also recorded in Appendix D. In summary, it makes the point that few of the 30,000 students enrolled at grade 11 were attaining the standard of performance which would qualify them to take these examinations. In any event (especially in the new secondary schools) vocational courses of study are provided from grade 10 for those whose performance indicates that they may well not be best suited for the academic options. These students sit other examinations such as the Secondary School Certificate (SSC) and Associated Examining Board (AEB). About 6% of those enrolled in grade 11 enter grade 12 of high schools and community colleges to pursue the GCE 'Advanced' level examinations. Indications are that some two to four percent repeat grade 11.

Expenditure on Education

The final aspect to be considered is that of expenditure on education, which is also shown in Appendix D for 1985/86, 1986/87 and 1987/88. It is seen that while the recurrent estimate for 1985/86 was $482.93 million, with a capital of $21.00 million, the comparable figures for 1986/87 increased to $609.0 million and $34.98 million. respectively, while the estimates recorded for 1987/88 reflect a further increase ($676.36 million and $59.48 million).

Access to Education at the Different Levels of the System

The educational structure outline in Figure 45.1, evolved over a period of some 370 years from a 'Caribbeanized' version of the British educational system. The introduction of elementary education

within the framework of the provisions for Emancipation in 1834, did suggest a distinct Caribbean intention in that initially it catered for children of the newly freed, and then became established as virtually the only educational offering available to Jamaican black children from the lower socio-economic echelons.

Running parallel to this structure from the second half of the eighteenth century, were private fee-paying preparatory schools, created for children of white or coloured parentage. When the system of secondary education became firmly established towards the end of the nineteenth century, it was mainly students from these preparatory schools who gained admittance. Features of the development of these two systems which became indelibly linked with class and colour, have been addressed by a number of writers, including Miller (1971), Figueroa (1971) and Lowenthal (1972). A useful summary has been provided by Figueroa (op. cit.) where he states that:

> 'There was the route through elementary school which usually ended at 1.3 or 14, except for a very few who stayed on to get special coaching for the Jamaican local examinations ... The other route was through private 'preparatory' school to secondary ... The different routes had their origins in the class structure of the society.' (pp. 69–70)

According to Figueroa, the limitations implicit in this type of structure inevitably led to numerous problems, including overcrowding, lack of really good teaching, and, a general dissatisfaction with what existed. Thus, Lowenthal's (1972) reference to Jamaica in the 1960s has indicated that only one in every seven children attended secondary school, and that although a 1963–64 survey showed that only one Jamaican in three could not read, yet three out of five were unable to read well (p. 122). (Quoting from the Jamaica Education Mission report of 1964-65, Lowenthal records:

> 'The Jamaican government is still thinking in terms of 'primary' education for the vast majority of the 12 through 14 age-group', a UNESCO team concluded, 'in circumstances which tend only to perpetuate the present social distinctions and class barriers.' (p. 122)

He concluded that:

> 'Status schooling remains a major function of West Indian education. Secondary school curricular continue to produce a ruling elite remote from the folk. And many nationalist politicians go on intoning old colonial values.' (p. 296)

The concept of 'status schooling' is addressed in a comprehensive manner in Miller's (1971) commentary on education and society in Jamaica. He defined four distinct social strata in contemporary Jamaican society, then related these strata to the educational system, indicating that certain school types cater for the higher social strata and others, for the lower. Terms such as 'posh' and 'poor' were used in this distinction, and Miller reported a:

> '... high degree of correlation between the structure of the education system and the social stratifiction of the society – both with respect to static or stable elements and with respect to the elements of change.' (p. 60)

These school type/social class relationships have, traditionally, been most evident, at the pre-secondary level, where there tends to be a pattern of 'poor' government/basic, government/infant, primary educational provisions for the lower class child, and 'posh' private kindergarten/private preparatory schooling for children of the more affluent members of the society. The cumulative effects of both routes to the secondary phase are very apparent at grade 6, where children sit the Common Entrance Examination (CEE) in the hope of securing a place in high school.

Several studies have examined the access to high school afforded students from both types of primary-level institutions (see, for example, Thompson, 1969 and Hamilton, 1979), although perhaps Nunes' (1976) paper provides the best account of the CEE from its establishment in 1957. During that early period it rapidly became evident that candidates from private preparatory schools had a significantly better chance of securing a place in high school than did those from the government primary schools. According to Nunes, results of the 1961 CEE awarded only 978 (46%) of the free places to 84,000 candidates from primary schools, as against 1,155 (54%) to the 4,000 entrants from preparatory schools.

Attempts to redress the situation by introduction of the 70/30 ratio in 1962, whereby 700/0 of the available places would be allocated to entrants from primary schools and 30% to those from preparatory schools, were thought by Nunes to reflect social justice rather than educational merit. Hence, his paper evaluates the 70/30 policy in terms of its social attainments. He has acknowledged that the government in 1962:

> '...without increasing the number of scholarships, reallocated them in order that more poor children would benefit from the scholarship system.' (:p. 2.11)

Leo-Rhynie (1987) has shown, however, that:

> 'Birth and poverty were not to be barriers but gender and urban home location could be. Girls had a handicap of 10, and pupils in the Corporate Area had a handicap of 20. Thus, a girl in the urban area had 10 score 10 points more than a boy in the urban area to get a free place, this girl having to score 30 points more than a boy in a rural area who also got a free place. ' (p. 6)

In addition to these handicaps, Hamilton's (1979) findings for the 1970s still showed support for the link between social status and success in the CEE, as she established that significantly greater numbers of students from upper socioeconomic status homes were gaining CEE awards, as against those from a working class home environment.

Mair-Fisher (1983) also examined the link between 'success' and socio-economic status, focussing on the effectiveness of the examination over a 30-year period in providing equal opportunity to children. She reported, from data gathered at a single-sex boys' and girls' high school that while, prior to the introduction of the CEE, the student body at both schools was comprised mainly of upper and traditional middle class children, around 1962 the middle class group increased, and after the 70/30 policy was implemented in 1972, more students from the low social echelons were admitted, especially in the boys' school. Mair- Fisher stated that:

> 'Whereas in 1952, 85% of the schools' population consisted of upper and traditional middle class children, in 1982 these classes were represented by only 40% of these students. ' (p. iii)

and made the point that only about 15% of students holding lower class membership were attending these high schools. Interestingly, Miller has arrived at similar conclusions based on a much wider sample. His explanation is centred around the view that his 1971 'Emerging Middle Class' sector has now become consolidated as a result of economic advancement and development, in what is virtually a new class. It is this new class that is most widely represented in high school, and not representatives from either the upper or lower ends of the social ladder.

Gordon (1987) has also written along lines suggestive of the existence of a new class, and, in fact, has referred to Miller's (1971) earlier comments about an emerging middle class. Gordon has identified what he terms, an 'intermediate status group' from his analysis of intergenerational mobility in Jamaica. In his words:

> 'This group is not readily assimilated to the main core of the middle strata or the working class. It is also evident that a large urban working class has interposed itself

> between these more privileged groups and the rural poor. This means that a much wider range of opportunities present themselves to the majority of the Jamaican people than obtained in the immediate post-war period.' (pp. 48–49)

Gordon has gone on to point out that this outcome should not be taken to imply any lessening of social inequalities. He has, for example, claimed:

> '... women are ... much more likely to be mobile into the mass professions like teaching and nursing, thereby experiencing some significant improvement in life chances and conditions.' They gain this mobility mainly because of sex-related discrimination which makes it difficult for them to inherit ... the occupational positions of those who brought them up. They pay for this greater mobility into the mass professions with lower average earnings.' (p. 34)

Although the 70/30 allocation was abandoned in 1974 when it was discovered that entrants from the primary schools were securing more than 70% of the available places on merit, Leo-Rhynie (1987) has pointed out that:

> 'Adjustments continued, however, to ensure that boys received approximately equal numbers of places to girls and that rural schools got adequate allocations, despite the poorer performance of children in these areas.' (p. 6)

This issue had been among the aspects included in Hamilton and Leo-Rhynie's (1984) analysis of sex roles and secondary education in Jamaica. These writers pointed out, interestingly, that in 1982:

> 'The charge that many low-performing boys are given places at the expense of higher-performing girls has been denied by the Ministry of Education (Daily Gleaner, 16 March, 1982), but no data have been produced to support this denial.' (p. 125)

Gender concerns have been viewed from another perspective by Miller (1986) in his publication, Marginalizarion of the Black Male. His marginality theory was reflected in the proposal that equal numbers of high school places be allocated to boys and girls each year, for, in Miller's opinion:

> 'The interacting socializing influences of school, home and church reinforce each other and are increasingly socializing black boys to accept marginality as a way of life.' (p. 5)

Several writers have disagreed with Miller's thesis – indeed, for several weeks, there was ample evidence of both opposition and support for his views appearing in the local news media. Leo-Rhynie (1987) for example, expressed strong disagreement with his opinions, stating:

> 'If the number of places currently available to girls is reduced, or if additional high school places are created for boys only, then many more girls who are performing at a higher level (and who, it can be assumed, are more qualified than the boys to participate in a high school education) will be refused that opportunity.' (p. 8)

The importance of inputs into the early education of Jamaican students at, and before CEE, have surfaced in several local investigations. Simpson (1982), using some 228 primary school pupils' CEE scores, established that those with basic school experience performed significantly better in the mathematics component of the CEE, than those who had not attended basic school. In addition, girls with basic school experience did significantly better than those without on both mathematics and intelligence components.

Garrick's (1979) study of the relationship of certain home environmental factors and the level of mental development manifested among pre-school four-year olds from low socioeconomic status families, established significant links between provisions of the home and the development of general concepts,

language and number concepts. The results suggested that, even if children come from poor homes, once mechanisms are in place to stimulate their cognitive growth, mental development can proceed at a satisfactory pace.

School attendance was addressed by McLeod (1982), whose investigation explored the possible relationships between attendance at basic school and certain home condition variables. McLeod ascertained that a significantly positive relationship existed between most aspects of the home environment and the child's attendance patterns, those from the more stimulating environments attending on a more regular basis. One can also conclude from this study (as from Garrick's) that a poor but stimulating home environment can, nonetheless, prove supportive to the child's functioning in many spheres, including school attendance. The implementation of compulsory education, contrary to expectations, has apparently made no difference in attendance patterns, for, as Coomarsingh (1984) discovered for the parish of Clarendon:

> 'Attendance patterns remain basically the same before and after the implementation of compulsory education.' (p. iii)

Coomarsingh also found that parents of middle class status welcomed the programme but did not feel that it really affected them, while parents of low socioeconomic status, although they agreed with the programme, felt that their poor economic conditions would not allow them to send their children to school every day.

Other studies on compulsory attendance at primary school have been mounted by Jones (1985) for Trelawny, and Roberts (1985) for St. Thomas. In both instances the conclusion was that implementation of the programme made little difference to the established patterns of attendance. Still other investigations of attendance/absenteeism and lateness (Erskine, 1979 and Clunie. 1983) have focused on the important role of the home and parents in this regard. A significant relationship has been found between home factors such as parents' interests in, and attitude to education and their children's willingness to go to school on a regular basis. No study has, however, been located which looks at the probable link between regularity of attendance and success in the CEE, although it is likely that a such a relationship does, In fact, exist.

The second-cycle phase, like the primary, presents certain access-linked problems, some of which are related to the CEE which directs children to high school (traditional, technical or comprehensive), or, if they are not successful in securing a place in high school, to new secondary or all-age (grades 7 to 9) schools by default. Even within the three types of high schools there appear to be several biases. Technical, vocational or industrial subjects, for example, are perceived as being of lower status than academic subjects; and, from Linton's (1983) study, there seems to be some class consciousness reflected in the attitudes held toward these non-academic options. Linton concluded that:

> 'The majority of students who were doing industrial education were found to be from the upper section of the lower class. It would therefore appear that the upper, middle and 'lower' lower classes of the society displayed a negative attitude towards industrial education.' (p. 5)

The problems imposed by home circumstances on school attendance which were demonstrated at the primary level, were shown to persist in new secondary schools by Lewin (1986), who ascertained that economic constraints such as lack of bus fare or lunch money, deterred students' attending on a regular basis.

Most schools of whatever type, practice streaming or some form of it, and studies such as Kellier's (1985) and Peart's (1982) have illustrated its deleterious effect on those of the lower streams. Peart showed, for example, that low streamers in a new secondary school, found the climate of the school unfavourable, held negative attitudes to school and had, over-all, a low conception of themselves. Kellier, too, showed

that the low ability students (placed, as expected, in the low stream) experience significantly more stress than their high ability counterparts. Another example of the negative effects of streaming – effects which severely limit access to specific subjects – is the channeling of students into gender-specific options. The typical arrangements is for the physical sciences and industrial arts (for ex- ample) to be considered 'boys' subjects', while the literary options and domestic/secretarial courses are felt to be for girls. The 1981 UNESCO document produced by Dupont which, among other things, looked at curricula and standards of education and training for boys and girls at the secondary and teachers' college levels, concluded that schools did offer gender-appropriate subjects, and that student choice is reinforced by the policy adopted by the school. Thus:

> 'Although male and female teachers ... have the same qualifications, the high schools assign them according to sexual criteria: women are almost always put in charge of home economics, office practice and commerce, and almost never of agriculture, automobile mechanics or machine shops. In these circumstances it is hardly surprising to find a majority of girls in courses taught by women and a majority of boys in those taught by men: it represents the perfectly natural phenomenon of identification.' (p. 36)

Leo-Rhynie's (1987) paper addresses these concerns as follows:

> 'In new secondary, technical and comprehensive high schools, there is a clear distinction in terms of vocational subjects studied by boys and girls. Girls select secretarial and home economic courses, while boys concentrate on industrial offerings along with accounts and principles of business education.' (p. 9)

She has provided the following table, showing, through the 1985 CXC entries, girls predominating in 'feminine' subjects such as clothing and textiles, and boys, in 'masculine' subjects such as metalwork.

Such biases, Leo-Rhynie claims, also hold true for the high schools, thus:

> 'The strong sex bias observed for certain subjects is a direct consequence of the scheduling of Industrial Arts simultaneously with Home Economics, and the assumption is made (and only rarely challenged) that boys do Industrial Arts, and girls do Home Economics' (Ibid)

These patterns, according to Leo-Rhynie, persist at the tertiary level as well. (Table 45.1).

Other researchers who have looked at this problem include Glasgow (1978) who reported that 331 boys compared to 171 girls in her grade 11 sample, were sitting two or more science subjects in the GCE 'O' levels. While physics was the favourite subject of 40.8% of the boys but only 4.1 % of the girls, biology was selected as the preferred science of 64.9% of the girls and 25.1 % of the boys. These patterns are in concord with Hamilton's (1976) findings for a sample of 576 students at grade 11 also.

Table 45.1

Entries for CXC General Proficiency Examinations in Specific Subject Areas: 1985 (Caribbean Region)

Subject	Entries		Ratio
	Male	Female	
Clothing and Textiles	4	424	1:106
Food and Nutrition	63	1,816	1:29
Home Management	777	537	1:77
Office Procedures	502	1,916	1:6
Shorthand	3	385	1:128
Typewriting	155	3,470	1:22
General Electricity	387	20	19:1
Metalwork	317	4	79:1
Technical Drawing	1,448	97	15:1
Woodwork	504	17	30:1
English Language	14,284	21,579	1:1.5
English Literature	3,493	7,007	1:2
French	409	1,205	1:3
Spanish	1,189	2,871	1:2.4
Social Studies	2,128	4,561	1:2
Mathematics	11,530	14,643	1:1.3
Biology*	857	1,344	1:1.6
Chemistry*	656	741	1:1.1
Physics*	568	358	1.6:1

*The relatively small number of entries in these subjects is due to the fact that this was the first year of their offering by CXC, and only a small number of students sat the examination.

Source: Leo-Rhynie, 1987, p. 15.

Such academic bias has been reported at grade 13 for the GCE 'A' levels by Leo-Rhynie (1978a) and Hamilton (1981).

Elsewhere, Hamilton and Leo-Rhynie (1984) have admitted that while there may not be any overt measures taken to limit students' to a gender-inappropriate curriculum area, indications are that strong, yet subtle, covert influences – part of the 'hidden curriculum' – are operating to this end. In an earlier paper, however, these writers had pointed out:

> 'The suggestion that any girl with ability could be hindered from doing physics 'A' level would be denied, yet two of the seven girls' schools in the capital city do not offer this subject.' (1979–80: p. 53)

Little else has been located in terms of studies on access to education at the secondary level, although a few related concerns – for example, the shift system (Edgar, 1980; Allen, 1980; Brown, 1982) – have received some attention. There has also been work on the predictive value of examinations (Thompson, 1969; Hamilton, 1979, 1981; Leo-Rhynie, 1984), but these have not been concerned with selection processes; rather, they represent post facto analyses of the situation. Nonetleless, such studies have, respectively, indicated the usefulness of the CEE in

predicting GCE 'O' level/CXC performance, and of the latter, as a good predictor of GCE 'A' level.

Prediction of performance at teachers' college level was studied by Mitchelmore (1984). From multiple regression results he ascertained that the best prediction was obtained from the number of GCE passes a candidate gained, particularly where these were combined with scores on a learning potential entrance examination. Other studies (Miller, 1986; Leo-Rhynie, 1987) have focused strongly on the feminine bias associated with the teaching profession, implying once more, that socialization forces impact heavily on career choice. The same bias holds, to a large extent, for the College of Arts, Science and Technology (Leo-Rhynie, 1987) and UWI (Hamilton, 1975; Miller, 1986). Increased accessibility to university education is reflected in Stone's (1983) paper, where he draws attention to the growth in student enrolment from 600 to 4,500 between 1959 and 1975. In more recent times has come the plea for programmes addressing 'national needs' to be implemented (Gordon, 1984). Despite this, it is true to say that while certain new programmes have brought with them special entry requirements, by and large, matriculation criteria have remained the same over the years.

One would deduce from this that UWI has remained somewhat conservative in its orientation. Yet there has been greater access afforded persons in both Jamaica and other contributing territories with the introduction of Challenge Examinations, and also, through the use of new technologies such as the UWI Distance Teaching Experiment (UWIDITE) in 1982. Hamilton's (1988) article summarizes the formative years of UWIDITE, lists the wide array of programmes available on the system (some linked to Challenge), and then concentrates on outlining the implementation of a university programme (a Certificate in Education) through the UWIDITE facilities. One of the main points arising from the discussion is the greater accessibility to university education made available by the new technology. Thus, despite numerous 'growing pains' during its early years, this innovation has come to be regarded as vitally important in helping to retain the regional character of the university. In Hamilton's words:

> 'There is firm commitment to UWIDITE, for it is viewed as one of the great successes of U.W.I. ... and ... it is regarded by the contributing territories ... as, perhaps, the major vehicle which will ensure that the University of the West Indies continues as a regional institution.' (p. 44)

Achievement at Different Levels of the Educational System

Student achievement, especially at the secondary level, is an area which has received a reasonable amount of attention by researchers. Investigations have tended to focus on the importance of certain cognitive variables such as space relations and abstract reasoning, to achievement, as well as on examining performance patterns of Jamaican students in national or external examinations. Some have explored the gender issue, others have looked at the type of school entering the student for examinations, and still others have attempted a combination of both these factors.

The quality of the work available varies widely, however, and in addition, some of the information is repetitive. For these reasons, it has been necessary to be very selective in the choice of sources for review.

The Pre-Secondary Level

At the pre-secondary level Roach (1978) found no significant difference between boys and girls on the Witkin test of field dependence/independence, a cognitive measure, although the grade 6 girls sampled out-performed the grade 6 boys in mathematics. Roach also established the importance of girls' home environment as this relates to the cognitive domain, reporting for this sex only, significant correlations between father-presence in

the home and socioeconomic status of the home, with field independence. Isaacs, P. (1975), in her investigation of primary-level students' performance on Piaget-style tasks of conservation (of length, area, quantity or displaced volume), proved boys to be superior to girls at conserving internal volume (p .01) and water levels (p. 001); yet girls performed significantly better on conservation of weight (p. 05). Her explanation was that:

> 'The girls go to buy things which are weighed out on scales a great deal more often than do the boys.' (p. 15)

Mitchelmore (1974a) has, perhaps, conducted the widest developmental study of spatial ability mounted to date in Jamaica. His sample of students drawn from grades 1, 3, 5, 7 and 9 of twelve primary and all-age schools, was subjected to five different tests of spatial ability (Hidden Figures, Design Construction, Horizontal-Vertical, Solid Representation and Geometric illusions). By and large, Mitchelmore's results showed a similar pattern of generally increasing scores – however:

> 'Whereas boys showed the greatest increase between Grades 1 and 5, girls improved the most between Grades 5 and 7. Boys and girls both found all the tests except (the) Solid Representation (test) very difficult in Grade 1, boys did considerably better than girls by Grade 5, but there was hardly any difference between the sexes in Grades 7 and 9.' (p. 4)

Mitchelmore expressed surprise at the turn around for boys by grade 7, and suggested that teachers include more spatial activities in their classes in order to sustain boys' performance levels in this area, and also to help improve the spatial ability of girls.

Other investigations focusing on pre-secondary achievement have included variables such as teachers' interaction patterns (Davis, 1981), parent-teachers' associations' inputs (Williams, 1979), classroom climate, school location and facilities (Collins, 1979; Gunter, 1980), and reading interests (Jennings-Wray, 1982), in their respective designs. Jennings-Wray drew attention to the likelihood of reading texts' influencing interests, and made the plea for:

> '...writers to represent more fully the varied reading interests of first graders, particularly in their textbooks.' (p. 15)

Reading interests – indeed, the fostering of an interest in reading – is of paramount importance to the young pupil, and certainly is an area to which parents should be sensitized, perhaps through PTA interventions. Other PTA inputs of note have been studied by Williams (1979). He first pointed out that the principal plays a pivotal role in the functioning of PTAs linked to primary schools. He then established the value of this body in boosting pupils' academic performance, especially in the CEE, through attention to factors such as discipline, punctuality and application to tasks on the part of the students.

In dealing with achievement as measured by English and arithmetic test results collected from 24 primary-level schools (using 823 students in grade 3, and 827 in grade 6), Coilins (1979) established that overall, social class proved to be the strongest predictor of achievement, with classroom climate having a greater input at grade 6, although the more global measure of school environment played a stronger role at grade 3. Davis (1981) also highlighted the importance of socioeconomic status to academic achievement, using a sample of 217 primary school students. Interestingly, he reported a significant relationship between students' socio-economic status and teacher evaluation ($X2 = 4.21$; p.05) and thus concluded:

> 'Socio-economic status, more so than other variables affects the level of students' academic achievement and teachers' evaluation of students in this sample.' (p. i)

Gunter's (1980) study forms a useful bridge between the primary and secondary levels of schooling, since she concentrated on possible causes of low academic performance in the three selection

examinations operating in Jamaica – the CEE (11+), the Technical Entrance, and the Grade 9 Achievement Test (GNAT). Her sample included some 57 all-age schools from which she selected the top and bottom three (in terms of performance in these national examinations). While numerous reasons were advanced regarding the poor performance of students in the bottom three schools, most of these related to highly unsatisfactory conditions in the schools, classified by Gunter as factors of the internal school environment.

The Secondary Level and Sixth Form

(i) Specific Factors

Turning now to cognitive factors and achievement in the secondary school, Mitchelmore (1974b) administered two tests of spatial ability (I-D Boxes and Three Dimension Drawings) to a grade 9 sample in new secondary and high schools. The outcomes supported his earlier findings for boys in the lower grades of primary school, as they did significantly better than girls on both tests. Hamilton (1976) obtained comparable results for her sample of 576 grade 11 high school students using the DAT Space Relations test (p.001), as well as the DAT Abstract Reasoning test (p.01). Her study focused on science orientation among high school students, and she showed, through use of multiple regression analyses, that abstract reasoning (for boys) and space relations (for girls) were among the strongest predictors of, achievement in the GCE 'O' level science examinations. Parchment (1982) found that the DAT Verbal Reasoning test proved a powerful correlate of achievement in 'O' level Spanish for girls, but, in the case of boys, an inverse, non-significant relationship was reported.

Creativity represents another area of the cognitive domain which has been investigated at grade 11. Edwards (1982), using a sample of 275 students, established a significant relationship between creativity (measured by fluency and originality), and subject orientation in high school. Girls with an arts-bias performed relatively better on her battery of creative tests than other students, especially science-biased males. She also obtained a field dependence/arts-bias/verbal creativity relationship, which held especially true for girls, but found no evidence of any significant correlate of creativity with science-oriented students. This led Edwards to conclude:

> '... early subject specialization in Jamaican high schools impose(s) several restrictions to the development of creative talent, originality and inventiveness,' (p, 126)

Hamilton's (1982a) study also looked at creativity in grade 11 students. She used the Circles Test, scored for flexibility, fluency and originality, as well as for quantitative differences in the responses generated. There were no significant differences between the sexes on the traditional measures of creativity (flexibility, fluency and originality) but the results illustrated marked variations in the content of the drawings. Whereas boys' drawings centred around the categories, 'scientific/technical/mechanical', and 'sports/games', those of the girls addressed most strongly, 'life' (representations of animate beings or their parts). Hamilton suggested that these outcomes which reflected students' interests, mirrored the different modes of socialization accorded girls and boys. She regretted the fact that it seemed as if school and society were attempting to prescribe 'acceptable' stereotyped behaviours for each sex. Thus, she said:

> '... where sex roles are internalized to the extent they even appear in innocuous situations such as the Circle Test, there is cause for concern.' (p. 131)

At the GCE 'A' level stage (grade 13) Leo-Rhynie (1978a) using a sample of 203 sixth formers, reported that the DAT Abstract Reasoning test contributed significantly to 'A' Level success in her science-emphasis group. Similarly, field independence proved a significant, but negative predictor for the arts-emphasis students. The male/female differences identified by Hamilton (1976) were seen to persist at

'A' levels, with boys scoring significantly higher than girls in this domain. Leo- Rhynie made the point that:

> 'Recognition of the importance of analytic thinking skills in effective functioning at this level renders imperative the fostering of their development (in girls as well as boys), as they are not merely necessary for examination success but are also essential for coping with life in a dynamic society. (Unfortunately) the development in girls of the intellectual skills traditionally associated with masculine interests has been regarded as a defiance of the 'appropriate' feminine role.' (pp. 289–290)

Hamilton (1981) included the DAT Spatial and Abstract Reasoning tests in a study intended to identify the best predictors of academic success at 'A' levels, her sample size being 140 boys and girls. Neither of the two cognitive measures featured in the prediction equation, however, and the correlation matrix showed that both these variables related only indirectly (by way of inputs such as early education) to 'A' level success.

(ii) Levels of Achievement

(a) *Achievement as overall performance*

Hall's (1977) research on a sample of 413 grammar school students showed achievement in the examinations to be best predicted by measured ability, followed by two social class variables, then what she termed, 'teacher non-punitiveness', and finally, intellectuality of the home. Some of these inputs also proved significant predictors for Hall's second criterion variable, Social Competence, allowing her to conclude that measured ability, together with some aspects of the home and classroom environments influence both academic performance and the development or social competence.

Seaton (1980) observed that the girls in her sample had been successful in a significantly larger number of subjects at 'O' levels than had the boys (p. 01). While she suggested that perhaps this could be accounted for by girls' having a wider educational base than boys, she also pointed to the early specialization of boys, which bears a relation to the emphasis on career preparation for this sex, to which reference has already been made (Edwards, 1982; Leo-Rhynie, 1978a). Leo-Rhynie did, in fact, record a significant difference in the career aspirations of girls and boys at 6th form, reporting that boys not only held higher aspirations than girls, but were also more certain of their career goals (p.01).

Also working at grade 11, Cameron's (1982) concern was with exploring the possible relationship between school anxiety and academic achievement, as measured by performance at 'O' level, using a sample of 131 students. He did not, however, obtain a significant correlation between the two, neither did they load significantly on the same factor; rather, each loaded negatively on the factor defined by the other. Academic self-concept appeared to be the main 'intermediary' variable, forming an indirect link between school anxiety and achievement for the sample overall, as well as for each sex.

Williams (1981), using a sample of 190 grade 11 students from four high schools in the Corporate Area, found that there was a significant correlation between 'O' level performance and achievement motivation. A further breakdown showed, however, that this only held for students in single-sex, not co-educational schools. McMillan (1982) from the findings obtained for a sample of girls drawn from three single-sex girls' schools and three co-educational institutions, ascertained that those in the single-sex school type were achieving at a markedly higher level than their peers in the co-educational setting. In a retrospective examination of 'O' level data, McMillan reported that in 1978. 13.1% co-education girls, as against 22.5% girls in single-sex schools, gained five or more 'O' level passes; and in 1979, the corresponding figures were 6.7% and 24.2%, respectively.

Hamilton (1985) employed a much larger sample of grade 11 boys and girls to explore this same point.

She found that for 529 boys and 617 girls drawn from co-educational and single-sex schools, there existed a significant difference in performance across the groups defined (p.01). Boys and girls in single-sex institutions were markedly better at 'O' levels, overall, than both boys and girls in co-educational schools. This finding led Hamilton to suggest that it would be a timely move on the part of the government to mount an evaluation of the effects of co-education, especially in view of the trends towards increased co-education manifested both locally and internationally since the 1960s. She thought, based on her results, that:

> '... in a situation where one may consistently be encountering the pressures implicit in competing with members of the opposite sex, whether the student fares better or worse such pressures are ultimately likely to affect performance adversely. There is also the public view held in Jamaica that co-education results in socialization between the sexes to the extent that school learning suffers ... (girls) fear that (academic success) might be threatening to the boys, who will consequently reject them as potential sexual partners' (p. 546)

'A' level performance, overall, was the focus of Leo-Rhynie's (1978a and b) study, which, among other things, illustrated that achievement levels of Jamaican 6th formers fell well below that of their counterparts in Trinidad, and also, indicated that the Jamaicans were not living up to the promises indicated from their performance at 'O' levels. She went on to report a noteworthy difference related to boys' and girls' success in the 'A' level examinations. Socio-economic status variables emerged as being predictive of boys' success, while an inverse outcome was established for girls. She saw evidence of the importance of good study habits and practices, and pointed out, through a follow-up study (1983) that a number of the 6th formers in her sample of 203 students:

> '... do not seem to understand that they have to apply themselves to their work consistently and that a fairly large proportion of their time must be devoted to work and study... Boys, more than girls, seem to suffer from (a) lack of knowledge (concerning study methods)... Many sixth formers also seem to depend on the teacher's advice for revision and 'cram' at the last minute, rather than work consistently. It is not surprising that most of the students are of the opinion that better study habits could have enhanced their A-level performance.' (pp. 174–175)

Morris (1978) also drew attention to the importance of good study habits to 'A' level achievement, as well as to the link with high performance standards in the 'O' level examinations. Holding a favourable perception of their teachers also featured as a significant predictor for the sample of 163 students. Other variables proved important to Monis' sub-groups – for males, early education considerations; for females, academic orientation; for the science-based group, 'Achievement Drive' and 'Self Reliance' factors; and for the arts-based sub-sample, two personality-type factors, including inputs such as ascendancy, extraversion and sociability.

The best predictors of 'A' level performance identified by Hamilton (1981) included students' performance at 'O' levels and the screen test taken prior to sitting 'A' levels, as well as the school environment, coupled with students' academic orientation. The outcomes from these various studies, when taken together, suggest that previous examination success, academic orientation and features of the school environment (including perception of the teacher) are valuable inputs to 'A' level performance. The teacher has featured in still another way, for Leo-Rhynie (1984) has shown that teachers' estimates for their students' ability at 'A' level are even more reliable than 'O' level grades in predicting performance. She also claimed that:

'It was particularly noteworthy that teachers' estimates tended to be more reliable for females than males in the arts, and for males than females in the sciences. One is led to speculate whether teachers' estimates reflect certain expectations which have

operated, during the advanced level programme, along definite sex-stereotyped paths, and which have been fulfilled in A-level performance.' (p. 45)

(b) Achievement as performance in specific subjects

Performance in specific subjects has been the focus of several investigations, most of which have centred around grade 11 (FOF levels/CXC) and grade 13 (FAF levels) In addition, a few have looked at performance outside the scope of these examinations. Isaacs, I. (1975) has studied the performance of 546 third-year post-primary students in mathematics, and has revealed a startling picture of underachievement in this area. Many students in his sample, especially those in all-age or junior secondary schools, were incapable of mathematical thinking at the comprehension and application levels. Isaacs, I. (1976) later studied the effect of environmental and psychological variables on the mathematics achievement of grade 9 students in all-age, junior secondary, private secondary and high schools (N = 457), measuring achievement by way of a 70-item test similar to the Grade 9 Achievement Test in mathematics. His findings were that the first factor obtained through factor analysis procedures, showed significant loadings on the criterion, and on school type and social class (negative), together with teacher qualifications and school location. Based on these outcomes, Isaacs suggested that:

> 'The first factor – the 'Social Environment of the School and Home' – indicates that, in the sample, students' academic ability and performance are complexly interrelated with the social background of their homes and the tone of their schools.' (p. 60)

Both home and school inputs surfaced in Anderson's (1980) study of the Secondary School Certificate (SSC) examination performance in English and mathematics. The main outcome of this investigation was to pro- vide evidence of the self-fulfilling prophesy at work. There were sizeable correlations between students' perceptions of significant others' expectations regarding their performance in the SSC English and mathematics examinations, and the actual performance levels registered in these examinations.

Parchment (1982) concentrated on students' performance in Spanish in the 'A' level/CXC examinations, and introduced a gender, as well as school type bias into her analysis. Her main outcomes were that boys in the single-sex high schools demonstrated markedly higher levels of achievement in this subject than did those in co-educational schools. She expressed the view that where boys are taught apart from girls, they are probably not faced with the assumption that they are doing a gender-biased' subject, and hence, are more likely to perform at a higher standard. In Parchment's words:

> 'In Jamaican schools, Spanish is generally thought of as a 'feminine' subject, and as such, one finds more girls than boys taking the subject, possibly because they feel this is expected of them.' (p. 85)

In light of this, Parchment recommended that, wherever possible, boys and girls in co-educational schools be taught gender-stereotyped subjects such as Spanish, separately, and that teachers attempt to cultivate in boys a positive attitude toward such subjects by removing the gender-bias attached.

Perhaps the largest volume of work produced for individual subject areas has been in science achievement, and much of this is to be found in Glasgow's (1986) excellent bibliographic guide. Included in this guide is Hamilton's 1976 study of science orientation, measured by way of the performance of 576 high school students in the GCE 'O' level science examinations. Variables such as space relations, social class, early educational experiences, attitude to science and aspects of the school (including both human and physical resources) surfaced as significant predictors at this level. The school-type factor was later investigated by this author (Hamilton, 1985) who showed that girls and boys from single-sex schools out-performed their counterparts of both sexes in the co-educational setting, in most subjects taken at 'O' level. Significant

differences emerged for geography, chemistry and biology in favour of students in the single-sex schools, and girls in this school type registered the highest grades in chemistry and biology of all the partitions probed. Boys and girls in the single-sex school setting were also shown to perform significantly better in the 'A' level sciences than their respective counter-parts in the co-educational institutions by Hamilton (1987). Boys from the co-educational schools, however, gave a markedly better showing at this level than at grade 11. Nonetheless, Hamilton was of the opinion that:

> '... a similar conclusion may be drawn from the findings of both (grade 11 and grade 13) studies in respect of girls of either school type: it is apparent that single-sex institutions provide a more favourable environment regarding students' performance in the sciences than do co-educational schools.' (p. 75)

The recommendation was thus made for Jamaican teachers in co-educational schools in particular, to guard against displaying any behaviour to their students which could be suggestive of sex discrimination, and to make a concerted effect to motivate girls in this setting to recognize that they are of equal worth, academically, as boys.

Performance in the sciences at 'A' level has also been explored by Leo-Rhynie (1978a), who concluded that achievement at 'O' level was the best predictor, together with scores on tests of field independence, spatial ability and abstract reasoning. Seaton (1980) similarly found field independence coupled with other intrinsic factors such as previous success (especially at 'O' level science) to be strong inputs to 'A' level science achievement.

Performance in history at 'A' level has been studied by Allen (1981), whose aims included a comparison of examination results in this subject for the two periods, 1970–1972 and 1974–1976, as well as an examination of performance patterns for Jamaican, Trinidadian and other Eastern Caribbean candidates. In sum, Allen showed that performance in 'A' level history has been generally poor, the highest percentage pass being 42% in 1971. She also found that, where West Indian history was concerned, Jamaica was the only territory which continued to register declining pass rates. In Allen's opinion, differences in performance across territories and between years were related to the preparation afforded candidates, as well as features of the examination itself - the wording of the questions, for example.

Very useful information concerning students' performance in 'A' level geography has been generated through the studies of Webb (1985) and Fong Kong (1985). Webb established that the most important input to achievement was school influence, inclusive of teachers' qualifications, experience and style of instruction. While cognitive measures such as verbal and spatial ability did not surface, study orientation and motivation made an impact on this Jamaican sample, with study orientation also showing a marked association with the educational system of the home.

Fong Kong's (1985) findings similarly focus on home environment, as her best predictor of performance in 'A' level geography was the educational tone of the home. This was followed by students' attitude to geography and what she termed, the geographical tone of the school. Boys demonstrated a greater degree of academic motivation, while girls reported experiencing more parental pressure and a greater influence of the geographical tone of their school on achievement.

The Post-Secondary Level

There is little by way of research directed at achievement at the post-secondary level (excluding 6th form). Reference has already been made to Mitchelmore's (1984) prediction-type study concerned with performance at teachers' colleges.

Elsewhere it has been shown that college students of low and middle achievement levels demonstrated more enjoyment of mathematics when taught under an investigative method, whereas high-

achieving students enjoyed mathematics more under authoritative methods (Stephenson and Mitchelmore, 1979). These writers have admitted that attitude gain (via increased enjoyment) alone does not necessarily lead to effectiveness in terms of performance; however, they have suggested that this is a worthwhile area to be considered, and too, one which lends itself to further investigation. It should be added that the impetus for this study was generated from Mitchelmore's (1977) earlier work which pointed to the importance of students' attitudes when he experimented with individual instruction in mathematics at a Jamaican teachers' college.

Reference has been made to this study in Leo-Rhynie's (1980) report of research on teacher education in Jamaica. In this paper she also focused on White's (1978) investigation of the relationship of various independent variables to the criterion measure – final teaching practice grade. White showed that four variables made a significant contribution to the criterion, these being interns' perception of their supervisor's rating, the second year teaching practice grades, school location in an urban setting, and favourable supervisor/intern relationships.

At another tertiary-level institution, the College of Arts, Science and Technology (CAST), Clarke (1977) probed factors affecting performance in English among 335 students, and reported positive correlations between perforn1ance in English and attitude toward this subject, as well as attitude to English and students' self-concept. She also showed that female students registered significantly better attitudes to English, and displayed a markedly higher level of perforn1ance in this subject than did their male counterparts.

Where university-based studies are concerned, Hamilton (1975) attempted to establish a relationship between 'O' and 'A' level performance and the UWI graduate output for Jamaicans. At that time, she was able to note the beginnings of a shift in emphasis from the arts to the sciences (a shift which was to become more apparent in ensuing years), observing in particular, that her data suggested that:

> '… more females are qualifying both at school and university in science fields.' (p. 113)

She concluded that this increase still had to be viewed as inadequate in that it was not yet keeping pace with the every-increasing need for scientists and technologists in Jamaica.

While not focusing on achievement, Glasgow's (1978) survey provided some useful information concerning factors which operate for the choice of science at both secondary school and tertiary institutions (including university), as well as the opportunities for employment in science-related fields in Jamaica. From her findings she deduced that the academic nature of science education in the formal institutions was quite unsuitable for employment. One can, from other evidence, suggest that the situation has not reflected any marked alteration in the decade of the '80s.

Socialization by Home, School and Mass-media

Reference has been made in the earlier sections of this paper to various effects of socialization as these impact on education, some instances including social class biases and gender role stereotyping. The bases for socialization are to be found in the home, and later, the school, and societal inputs from sources such as the mass media are constantly helping to shape the young person's value system.

The Home

There are few Jamaican studies which focus directly on the home as a socializing agent. Wong (1984) however, probed the effect of father-absence and female dominance in both home and school, as this affects the personality and behaviour of adolescent Jamaican boys. While Wong did not find any significant differences between her father – absent group and those boys who had an older male presence in the home, she did show that

father absence (coupled with female dominance) resulted in low levels of responsibility, low opinion of male/female relationships and high aggression. In addition, boys who felt they were strongly dominated by females, revealed a tendency to have a low self-concept.

Minott (1985) explored the relationship existing between self-acceptance and acceptance of significant others, with certain home and school environmental variables, using a sample of 359 grade 7 students in new secondary and high schools. She ascertained that the high school group was significantly more self-accepting than new secondary students, and also scored significantly higher on her measures of early schooling, perception of significant others, and social learning. Stepwise multiple regression analyses indicated that students' perception of parental acceptance was the best predictor of self-acceptance for the sample overall, as well as the female and new secondary partitions. Acceptance of parents emerged as the best predictor for her male students.

Richardson's (1982) work has been of great consequence in addressing the important role played by socialization in the formation of one's identity. She first provides an historical setting to the problem. and next, having examined contemporary factors of the home and school as these affect the individual's sense of sameness. proceeded to measure tertiary-level students' identity from three perspectives – personal, national and occupational. Richardson then showed that factors of the home, in particular, but also of the school, proved to be significant correlates of identity (especially the personal domain) for her sample overall, although subtle differences were seen to exist for the sub-groups considered. Also, she was of the opinion that the home and school might well be pulling in different directions, as a result of a conflict of the value systems operating in these two environments. The result of this was, inevitably, that each weakened the effects of the other. An alternate explanation offered by Richardson was that:

> '… the conflict may not be so much between the home and school as between youth and the established order. If these young persons are still at that stage of identity-seeking where they tend to be resisting conformity to the demands of authority then they may, for the moment, appear to be more independent of their early environment than is really the case.' (p. 27)

To some extent, the question of identity-seeking has been addressed in Gordon's (1983) research into the incidence of problems experienced by Jamaican adolescents. Among the problems identified in her survey was that of teenage pregnancy, which was interpreted as a manifestation of both a lack of security and of a search for independence on the part of the girls in her sample. Jenkins (1983) on the other hand, felt, as a result of the findings she obtained using a sample of 195 sixteen and seventeen year-olds, that teenage pregnancy represents a problem which is integrally embedded in the culture, and thus saw the need for interventions to be staged at the level of the family. Such interventions would be specifically directed toward changing people's attitudes to sexual matters and sex-role relationships.

There are a few strongly sociological studies to be mentioned in this section. Landman et al. (1983) dealing with child-rearing practices among working class families, found that the practices applied reflected African, slavery and British influences, especially with regard to the emphasis on corporal punishment. These writers also found that the socializing processes operated within a traditional framework, although there was evidence of some changes in Jamaican child-rearing practices within the past three decades. Thus:

> '... it is no longer common for children of this age (31 to 60 months) to be given chores, traditional folklore is less important, the grand- mother's role is diminished and father's participation is greater. Play materials, although limited, are more in evidence. Urbanization may be responsible for some of these changes.

> In summary, a picture emerges of a rich social life, authoritarian discipline and little conscious encouragement of cognitive development. 'There is a relative lack of the child-centredness which is the hallmark of Western middle-class child-rearing. These practices reflect a somewhat discordant mix of the influences of an African heritage, Western urbanization and poverty.' (pp. 50–51)

A decade earlier, Brodber (1974) had concentrated on one specific problem area related to child-rearing in Jamaica, that of abandonment of children. This was a particularly serious social problem during the 1960s, and Brodber presented data indicating that nearly 2,500 persons reported their child-caring arrangements as being inadequate. In Brodber's words:

> 'What we have here is a situation where parents or surrogates feel unable to assume child-caring responsibilities but more especially for male children aged five to thirteen. The solution they see in 337 of the cases, that is where they abandon or where they request removal of an uncontrollable child or truanting child, is making the child a ward of the State.' (p. 37)

Brodber (1975) also studied the social/familial arrangements in tenement yards in Kingston, looking at, among other things, the role to be played by men and women in this situation in the up-bringing of their children. She ascertained that in such a setting children are virtually pushed into maturity. They:

> '... gain their independence and become adults when they have reached between 17 and 20 years old and no longer live in their parents' home. They may gain this adulthood by default when they have produced children before this age from the sexual intercourse in which their parents expect them to indulge, but hope will not be brought to their attention.' (pp. 37–38)

The School

In light of the largely unsatisfactory child-rearing practices mentioned above, it is not unexpected to encounter numerous problems once the child enters school. Again, research in this area is sparse, and such as there is, has been largely directed at the secondary level. In addition, the focus has tended to be on problem behaviours, which may be interpreted as an absence of adequate socialization in both the home and school.

Before considering studies on problem behaviours, however, one recognizes that there have been several valuable investigations on the use of Creole, as against Standard English, which presents a problem of a different nature for educators. Craig has written widely on the subject, and has drawn attention to the ease with which many Creole-speaking individuals are able to:

> 'shift into mesolectal speech or learn to do so, as compared with the relative difficulty of getting speakers, even after many years of normal education, to shift their speech from the mesolect into some variety of Standard English.' (1980, p. 3)

The Creole, according to Craig, is widely referred to as bad English or broken English, and has been regarded by society at large as a sign of a lack of education, or of poor education, and consequently, of low social class (p. 7). Although the Creole is, for many children, their first or 'home' language, the school has, traditionally, attempted to eradicate Creole speech in ways which have often been psychologically damaging to the students' mental development. Craig has admitted that this approach can be understood in terms of the social dominance of English, and the aspirations toward a social mobility which can be achieved through English (p. 8); while Pollard (1978) has stated that:

> '... since English is the language of education and of all the formal motions in the society, it functions as a target language for speakers

> of the Creole as they aspire to social and economic change in their situations and as they operate in formal contexts.' (pp. 16–17)

Craig has also suggested that there is some indication of an attitudinal shift toward a more liberal and progressive outlook. He has thus made a strong recommendation for:

> '... primary schools (to) continue the oral use of the child's home language, while concurrently teaching English as a second form of speech as well as the only medium for reading and writing.' (pp. 13–14)

Turning now to behavioural problems in the school setting, Daley (1982) explored truancy at the new secondary school level, using a case study approach. His findings showed that not on)y were truants raised in more disturbed family situations than non-truants, but they also held markedly more unfavourable opinions of their school and teachers. Daley further ascertained that certain school factors such as the punishment administered to recalcitrant students, the subject choices available, and the teachers' remarks about students also seemed to influence truancy.

Burrows (1983) similarly studied certain school conditions, procedures and activities, this time, in relation to the incidence of juvenile delinquency among adolescent students. He discovered that it was those holding membership in the lower class who were more prone to the influences which encourage delinquency. This was especially marked where such students did not get much help or encouragement from their teachers. Physical short-comings or the institutions, such as overcrowding, also led to the development of frustration and aggression among students. These anti-social behaviours were manifested in fighting, poor relationships within the school, premature termination of schooling, and eventually, appearances in the Juvenile Courts.

Williams' (1985) investigation into vandalism conceptualized as a socially created problem, took the approach that this represented another form of anti-social behaviour which, if it were not corrected, could lead the young person to more serious misdemeanor. Of an even more serious nature is the use of drugs. This has been studied in an educational context by Gordon (1983), using a sample of 160 adolescents. Gordon's major finding in answer to the question of why young people turn to drugs, was seen to be related to the influence of the community in which they live, especially in the case of students from new secondary schools. Deterrents to drug usage were found to be healthy family relationships, coupled with the influence of church and religion. This last named input also featured in Bell's (1981) study of the effects of environmental factors on character development. She reported that although both home and school inputs were significant in shaping the character of sixth formers, the strongest influence of all was the church and religion, especially for the girls.

Alienation among older adolescents was the focus of studies by Degazon-Johnson (1983) and Stokes (1984). Although Degazon- Johnson was not able to identify significant differences between the sexes on her measure of alienation she did ascertain that there were differences in the methods employed by each in demonstrating this behaviour. The high incidence of teenage pregnancy, for one, was thought to be one way in which girls registered their alienation from society. Stokes (1984) actually did establish that the girls in her sample of 769 grade 11 students, were more alienated than the boys. So too, were those students with a poor self-concept and very high academic achievement motivation. What is suggested here is that pressures of the school, coupled with features of the home environment, such as low socioeconomic status, promote the development of numerous disorders in the young, not the least of which is alienation.

Hall's (1981) research also dealt with a personality problem, this time, social maladjustment in grade 9 of the all-age school (N = 375). Using Stott's Bristol Social Adjustment Guide, Hall showed that the most sensitive environment indicators of social maladjustment were those variables characteristic of the teacher, especially the teacher's educational background, where boys were concerned, and length of teaching experience, for girls. While Hall admitted that she had accounted for generally low percentages of variance through variables such as these, she did, nonetheless, feel that emergence of the teacher variables could be regarded as indicating a sufficiently important trend to warrant their attention.

The stand taken in Rowe's (1984) thesis was that adolescents very frequently do not receive adequate preparation for dealing with problems such as the sexuality associated with this developmental phase. She found, however, that information on sexual matters was readily available, although a large number of her sample of 332 students reported experiencing some confusion and conflict on some sex-related matters. It is worthwhile noting that the school (through its nurses and counsellors) proved more valuable than parents in the dissemination of such information. School influence was likewise found to be a strong force in the political socialization of young people approaching the voting age of eighteen. McIntosh (1982) was able to establish significant relationships between curriculum influences {including not only subject matter, but also methodology of the teacher} and students' commitment to the existing political system. In three schools, curriculum influences similarly displayed a marked relationship with students' self-efficacy, while in five, school organization reportedly exerted a significant influence on this measure. These outcomes led McIntosh to conclude that, to some extent, the schools were successful in bringing about political socialization, and were proving useful vehicles to:

> 'pass on certain values and skills which can help to make the Jamaican society evolve into a true democracy' (p.3).

The Mass Media

One of the main studies in the area of socializing effects of the mass media, is that of George (1981), which has looked at the educational roles of television, specifically. She has addressed the influence of this medium in transmitting foreign-based values (especially those of the United States of America), quoting from Schiller (1969) as follows:

> '... communications material from the United States (offers) a vision of a way of life... a mountain of material artifacts, privately furnished and individually acquired and consumed (which is) the channel through which lifestyles and value systems can be imposed on poor and vulnerable societies.' (pp. 47–48)

In light of these and other considerations, George expressed the need for Jamaica to become more heavily involved and committed to the production of local programmes for formal and non-formal education. Although there was some evidence of such production taking place through the Agency for Public Information and the Educational Broadcasting Service of the Ministry of Education, she felt that this was inadequate. Formal evaluation of the offerings being aired has also not been built into the system. George thus suggested that funding be secured to establish a research department for this purpose, to both evaluate the success of local programme implementation, as well as to guide in the making of serious policy decisions in relation to the contribution of television to Jamaica's development goals (p. 57).

A research department would, no doubt, be supportive of Girling's (1971) appeal for extending the Education Broadcasting Service's facilities in order to transmit mathematics instruction to a wider range of students. In attempting a cost-benefit evaluation of alternative technologies for teaching mathematics in Jamaica, Girling has taken the stand that the expenditure involved in such television instruction

would be justified, given that mathematics teaching/ learning has represented a 'particularly intransigent problem in Jamaica' over the years (p. 72).

The other study dealing with the media in this context which has been located, is that of Bell (1981). Here, the mass-media represented one of the environmental inputs for character development probed in her study of older Jamaican adolescents. While significant relationships were established between media inputs and the criterion, the media did not feature as one of the strongest predictors of character for this sample. It is likely that the media forces were more strongly apparent at an earlier age (Bell's sample involved students at the 6th form level) and at that time functioned as more salient socializing agents. By the time the young person has reached 6th form, however, other inputs from the environment, such as the impact of religion, appear to playa more dominant role in the shaping of values, and, by extension, character.

Concluding Comments

Graduate students are generally advised that research undertakings should be both backward- and forward-looking, the backward- looking perspective providing some sort of setting so that the reader gains an understanding of the context in which the research has been accommodated; and the forward-looking aspect intended to interpret the data, identify implications wherever possible, and offer recommendations which are often implicit in the research itself. It is hoped that the investigations reviewed in this paper have provided both backward and forward-looking perspectives: indeed, this consideration featured among the criteria employed in their selection for review.

Another criterion considered, this time, defined by the Conference organizers, was that they should address one of three specified areas – access to education at the different levels of the system, achievement at different levels of the educational system, and socialization by home, school and mass media. It was also decided that the researches should, in some way, reflect the state of the country's educational system as a whole, although it was recognized that they certainly were not always free from conceptual and methodological flaws.

One appreciates that the studies reviewed might indicate contradictions resulting from superimposing 'new' structures on the system left behind by colonial administrators. Yet, educational research such as this has a vital part to play in nation building, since, in Miller's (1984) words:

> '… it generates knowledge, understanding, and instruments, creates expertise on the one hand and authority on the other.' (p. 187)

Unfortunately, there is often resistance to the acceptance of research findings generated by Jamaicans – indeed, by nationals of whatever ex-colonial territory of the Commonwealth Caribbean one chooses to consider. As a result, valuable data contained in academic papers, studies and theses, are often hidden away in the university's libraries where they are virtually ignored except by those who have an academic interest in the particular area addressed in the paper. Thus Leo-Rhynie (1982) has made the point that:

> '(the) methods of disseminating the results of research tend to be haphazard and unsatisfactory in terms of bringing about improvements in the system of education.' (p. 144)

There is also the fact that the large majority of educational research undertakings in Jamaica have been mounted by students pursuing degrees, whether at the undergraduate or postgraduate level, and reflect areas of academic/personal interest on the part of these students, rather than educational policy and procedural matters. Staff at the Faculty of Education have also been major contributors to this body of knowledge, but again, their research interests have been largely in terms of academic interests. It is informative to note the number of representatives from these groups whose work has been mentioned. There have been approximately

1,000 bachelor's studies produced during the period under review, along with about 160 higher degree theses at the doctoral or master's level. In all, roughly 3% of the undergraduate work has been included, together with about 20% of the postgraduate theses. These inputs, however, comprise 53% of the 102 sources mentioned in this paper, the remaining 47% being devoted to publications in academic journals (30%), books or monographs (10%), conference reports (3%), working papers (2%) and govern- mental documents (2%).

The paucity of references to undergraduate work (3% of the total) is as a result of several considerations. First of all, those studies included had, naturally, to address one of the three dimensions defined, but, too, they had to have merited a grade of at least a B +. It must be acknowledged, however, that they tend to be strongly centralized (dealing with features of the Kingston metropolitan area), although a concerted attempt was made to include those probing educational concerns in parishes outside the Corporate Area. Sampling has also been restricted in many instances, and, as a result, the findings have often been of limited generality. Despite these limitations, it is felt that the data have potential value for wider application.

Of the three dimensions reviewed, it is really only the second – achievement at different levels of the educational system – which, it can be said, is fairly well represented in terms of educational research. Studies on access have largely focused on the CEE stage, and there is some very valuable work being done on the limitations imposed or opportunities provided through one's membership in a particular social class. Another aspect of access-based studies which is gaining recognition is the question of gender – and here, writers such as Miller (1986), and Hamilton and Leo-Rhynie (1979–80, 1984) have, through their work, done much to sensitize educators to the importance of this issue.

The quantum of relevant research on socialization is, perhaps, the least impressive of all, and one is left with the feeling that the excitement generated by sociologists and anthropologists during the 1950s and 1960s – persons such as M.G. Smith and Madeline Kerr – has not been sustained in recent times. Admittedly, there has been valuable work in the area of the educational/sociological implications of language teaching/learning by Pollard (1978) and Craig (1980), and too, Richardson (1982) has contributed in a very positive way to the growing body of knowledge about the Jamaican identity. Little attention has, however, been directed to features of the young person's environment as these act as important socializing agents; and especially in an age where technological innovations such as satellite dishes are featuring so prominently, this omission gives cause for concern.

Studies looking at achievement have, to a great extent, provided a fairly clear picture of both inputs and outcomes, especially at high school. There have been a number of useful points emerging from those investigations which focused on cognitive inputs to achievement, such as the significance of an educationally stimulating home environment, especially for girls, as well as the role to be played by the teacher in encouraging students' performance in these areas. Another innovative dimension referred to was that of creativity, and Edwards' (1982) finding of a link between this dimension and subject specialization, particularly the early subject specialization typical of Jamaican high schools, is, again, of some consequence. So too are Hamilton's findings of the possible effect of school-type (single-sex/co-educational) on the achievement levels demonstrated by both sexes. Glasgow's (1986) on-going work on science achievement likewise merits serious attention, especially since performance in the sciences has tended, over the years, to be poorer than in other subject areas.

Investigations probing achievement at grade 11 or grade 13 in external examinations suggest the need for attention to be devoted to certain areas in particular:

1. Disparities in performance levels for Jamaican students as against students in other Caribbean territories such as Trinidad and Tobago.

2. The science/arts dichotomy, in terms of the perceived prestige value of the sciences over the arts, as well as the gender biases associated with subject orientation.

3. The importance of psychological inputs such as study habits, school anxiety and academic motivation to academic achievement.

Haralambos, M., M. Holborn and R. Heald. 2004. Explanations for under-achievemnet by females. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 759–769.

A variety of explanations have been advanced for female under-achievement in education, and we will consider the most significant ones in the following sections. Most of these explanations are based upon the assumption that it is girls who are less successful, and so are most relevant to explaining under-achievement in earlier decades. However, some of the processes discussed may still be preventing female pupils from achieving their full potential.

Innate ability

One possible explanation for female under-achievement is that there are differences in innate ability between males and females. However, while researchers have looked for evidence that girls have lower levels of ability than boys, many test results suggest that, if anything, girls have more innate ability than boys. Harvey Goldstein (1987) points out that, on average, girls performed better in the eleven-plus – which was a type of intelligence test. Some LEAs, in fact, adjusted girls' scores downwards in order to ensure that grammar schools were not predominantly occupied by girls. As Goldstein points out, though, the idea that such tests can measure innate ability is largely discredited (for a critique of IQ tests, see pp. 733–6).

From a review of the available evidence, Paul Trowler (1995) also raises strong doubts about the usefulness of biological explanations of female under-achievement. He does not think there is much difference in male and female abilities among primary school children, but he acknowledges that most studies show that, at the age of 11, girls do slightly better than boys in tests of verbal skills, while boys perform slightly better in tests of visuo-spatial skills. However, Trowler points out there is very little difference in overall IQ scores for males and females. Differences in specific abilities might well be a product of social rather than biological processes. He concludes:

> Obviously there are differences between males and females – physical, hormonal, genetic and so on. Even the less obvious ones can be established in a scientific way. The problem comes when trying to establish a link between social behaviour (e.g. women being better at languages) and these scientifically validated physical characteristics. It is very difficult, if not impossible, to say for sure that they are causally linked. Trawler. 1995

Recent results at key stage 1 (See table 11.7) show that 7-year-old girls are performing better than boys at all subjects, including science and maths. Biological explanations cannot account for the improvements in female performance relative to boys over recent decades: if biology was the determining factor then boys would have continued to do better in some subjects than girls.

In the absence of convincing evidence for gender differences in attainment being the result of innate differences, we turn next to more plausible, alternative explanations.

Early socialization

Early socialization may well account for any eventual relative failure of girls. Fiona Norman and her colleagues (Norman et al. 1988) point out that, before children start school, conditioning and sex stereotyping have already begun. From the types of play that girls and boys are encouraged to engage in and the types of toys they are given, different sets of aptitudes and attitudes can be developed.

Girls may have their educational aspirations affected through playing with dolls and other toys which reinforce the stereotype of women as 'carers'. Boys tend to be encouraged to be more active than girls, and this may be reflected in their attitudes in classrooms. Furthermore, boys are more likely to be

given constructional toys which can help develop scientific and mathematical concepts. Stereotypes of men and women can be further reinforced by the media, through comics, books, television and various types of advertising.

One possible consequence of early gender stereotyping is that girls may come to attach less value to education than boys. Research conducted by Sue Sharpe (1976) into a group of mainly working-class girls in London in the early 1970s found that the girls had a set of priorities which were unlikely to encourage them to attach great importance to education. She found that their concerns were 'love, marriage, husbands, children, jobs, and careers, more or less in that order'. Sharpe argued that, if girls tended to see their future largely in terms of marriage rather than work, then they might have little incentive to try to achieve high educational standards.
In the 1990s Sharpe repeated her research and found that girls' priorities had changed (Sharpe, 1994). The changes may help to explain why the educational attainment of girls at school is now greater than that of boys (see pp. 769–73 for more details).

Material factors

There is little doubt that the cultural factors involved in socialization play some part in explaining gender differences in educational attainment. It is less clear what part material factors might play, since obviously both boys and girls come from families at every level of the stratification system.

However, J.W.B. Douglas (1964) and colleagues suggested that in some families more resources are devoted to the education of sons than daughters. If parents believe their son's future depends more upon his work than their daughter's, they may be less willing to finance post-compulsory education for daughters than for sons. This is a comparatively under-researched area and whether such differences continue today is unclear.

Socialization in school

Most research into gender and education has focused on factors internal to schools. Many sociologists have claimed to detect bias against girls in the educational system.

Early research by Glenys Lobban (1974) claimed that the early years of some educational reading schemes reinforce the gender stereotyping found in wider society. From a study of 179 stories in six reading schemes, Lobban found that only 35 stories had heroines, compared to 71 which had heroes. Girls and women were almost exclusively portrayed in traditional domestic roles and it was nearly always men and boys who took the lead in non-domestic tasks. In at least three of the schemes females took the lead in only three activities in which both sexes were involved: hopping, shopping with parents, and skipping. Males took the lead in seven joint activities: exploring, climbing trees, building things, looking after pets, sailing boats, flying kites and washing cars. Summarizing the findings and the likely effects of the reading schemes, Lobban says:

> The girls who read them have already been schooled to believe, as our society does, that males are superior to females and better at everything other than domestic work, and the stories in the schemes cannot but reinforce the damage chat our society does to girls' self-esteem. Lobban, 1974

Lobban's research was conducted in the 1970s, but more recent research has also found evidence of gender stereotyping. In 1992 Lesley Best and her students examined a sample of 132 books for pre-school-age children in an attempt to discover whether gender bias in children's books had decreased.

They found that in these 132 books, 792 male and 356 female characters were portrayed. There were 94 male heroes but just 44 heroines. Some 75 per cent of the female characters featured in the book were

portrayed in family situations, compared to just 15 per cent of the male characters; and men were shown in 69 different occupations, but women in only 18. Some characters were shown in non-traditional roles – there were two female sailors, a female jockey, and a male babysitter, for example – but they were the exception rather than the rule.

Lesley Best concluded that, despite the existence of a few non-sexist books, little had changed since Lobban's research. She says:

> It would seem that there is little attempt made in pre-school books co widen the horizons for either sex by presenting more women in a brood range of jobs or more men taking on a caring role. Best, 1993

Although considerable efforts have been made to eliminate gender stereotyping – for example, by some LEAs, teachers and publishers – there is evidence that the efforts have not been successful.

John Abraham conducted research in a comprehensive school in 1986. He found that gender stereotyping remained. After analysing the three main maths textbooks used he found them to be:

> extremely mole-dominated. Moreover, male and female agency was extremely stereotyped. There were many more males represented in active roles. Women tended to be shopping for food or buying washing machines, whilst men tended ca be running businesses or investing. Abraham, 1995

In French textbooks there was also some gender stereotyping. However, unlike the maths books, women were sometimes shown using the subject in paid employment. In the maths books, the roles for women did not suggest any positive attractions of being a female mathematician. Maths was largely used in domestic roles. In the French books, female-dominated jobs such as being an air hostess, a secretary or a model suggested that French could be useful to women in paid employment.

Research which only examines the content of reading schemes or textbooks is rather limited in scope. It does not reveal what effects such books have on children. Recent research has tended to emphasize that children are not simply the passive recipients of socialization processes. Instead, they are actively involved in shaping their own conceptions of what it means to be masculine or feminine. Abraham's study is itself an example of this, as is Paul Connelly's study: which will be discussed later (pp. 786–7).

Behaviour in the classroom – self-confidence and criticism

The active and dominant males in the reading schemes may be reflected in the behaviour of boys and girls in the classroom. From their own classroom observations and from the analysis of other studies, Barbara G. Licht and Carol S. Dweck (1987) reached some interesting conclusions about sex differences in the self-confidence of young children in education.

Licht and Dweck found that girls lack confidence in their ability to carry out intellectual tasks successfully. Despite the superior performance of young girls compared to boys in primary schools, it was the girls who generally expected to encounter most difficulty when learning new things. According to Licht and Dweck, boys are able to shrug off failures by attributing them to a lack of effort on their part, or unfair assessment by teachers. Girls, on the other hand, constantly underestimate their ability, fail to attach significance to their successes, and lose confidence when they fail.

This is because girls blame failure on their own intellectual inadequacies, while explaining success in terms of luck. In doing this, girls fail to convince themselves that they are capable of succeeding, and they come to avoid challenging new situations in which they fear they will fail.

Licht and Dweck do not think that this situation is the result of conscious discrimination by teachers.

Indeed, they found that, in line with their own experiences of how girls performed, most primary school teachers expected greater success from their girl pupils. However, by examining fourth- and fifth-grade American classes, Licht and Dweck found differences in the ways that boys and girls were evaluated.

There was very little difference between the sexes in the amount of praise and criticism that girls and boys received for their academic achievements and failures. Boys, however, were criticized much more frequently for lacking neatness in their work, for failing to make sufficient effort and for misbehaviour in the classroom. Licht and Dweck concluded that girls begin to lose confidence because they get less criticism from teachers. The boys in their study were given ways of explaining away their failures in terms of behaviour that could be modified; the girls had no such excuses to make for themselves.

Although now rather dated, more recent research also suggests that boys continue to get more criticism than girls but girls still lack self-confidence.

Michelle Stan worth – gender differences in further education

Michelle Stanworth (1983) examined the later stages of the education system in a study of 'A' level classes in a further education college. She interviewed teachers and pupils from seven different classes in the humanities department. Her findings suggested that in the sixth form a number of the attitudes displayed by teachers would impede the educational progress of girls. These attitudes were not confined to male teachers – they were also typical of their female colleagues.

Teachers found it much more difficult to remember the girls in their classes. Without exception, all the pupils whom teachers said it was difficult to name and recall were girls. Quiet boys were remembered, but quiet girls seemed to blend into the background and make little impression on their teachers.

Stanworth found that teachers held stereotypical views of what their female pupils would be doing in the future. Only one girl was seen as having the potential to enter a professional occupation. Interestingly, she was the most assertive of the girls in the classroom but her academic performance was not particularly good. The most academically successful girl was described by one teacher as being likely to become a 'personal assistant for someone rather important'. Even for this girl, marriage was suggested as one of the most significant aspects of her future life; and male teachers mentioned nothing other than marriage as the future for two-thirds of the female pupils.

When asked which students were given the most attention by teachers, the pupils themselves named boys two and a half times as often as girls, although girls outnumbered boys by nearly two to one in the classes studied. The pupils reported that boys were four times more likely to join in classroom discussions, twice as likely to seek help from the teacher, and twice as likely to be asked questions.

Furthermore, girls were consistently likely to underestimate their ability, while boys overestimated theirs. Pupils were asked to rank themselves in terms of ability in each class. In 19 of the 24 cases in which teachers and pupils disagreed about the ranking, all of the girls placed themselves lower than the teachers' estimates, and all but one boy placed themselves higher.

Stanworth found, then, that interaction in the classroom seemed to disadvantage girls considerably. They were encouraged to take less part in classes, and got less attention from teachers, and as a consequence lacked faith in their own ability. Teachers had an important role in these processes, but pupils themselves contributed to the interaction which, according to Stanworth, 'played an active part in the regeneration of a sexual hierarchy, in which boys are the indisputably dominant partners'.

Dale Spender – Invisible Women

Perhaps an even stronger attack on the education system is made by Dale Spender in her book Invisible Women (1983). Spender claims education is largely controlled by men who use their power to define men's knowledge and experiences as important, and women's knowledge and experiences as insignificant. Thus, in economics, for example, the contribution of women's often unpaid work to the world's economy is usually ignored. Women who have made a notable contribution to human progress (such as Ada Lovelace, who helped to develop computer software) are also ignored. Indeed. Spender sees the whole curriculum as being riddled with sexism, which is bound to undermine girls' self-confidence and hinder their progress.

Quoting from a variety of studies, Spender goes on to argue that girls get less attention than boys in the classroom. She taped some of her own classes in which she consciously tried to divide her time equally between the sexes, yet she still found that only 38 per cent of her time was spent interacting with girls.

Spender argues that girls have to wait longer than boys for what attention they do receive in the classroom, and that female contributions to discussion and debate are usually treated dismissively by the males present. Boys are often abusive and insulting to girls, yet teachers fail to rebuke them. Male pupils play an important part in damaging girls' education. Spender claims 'boys do not like girls ... they find them inferior and unworthy, and even despicable.' Boys communicate their low regard for the girls in the classroom, forcing them to retreat into keeping a low profile.

Although she concentrates on what happens in the education system, Spender does not hold the system entirely responsible for the educational failure of girls. She points out that 'girls were just as familiar with the roles they were supposed to play, before they were allowed to attend schools', and today children learn to behave in masculine and feminine ways before they are old enough to start their formal education. Spender sees male dominance in society as a whole as the basic cause of girls' difficulties in education, but schools help to reinforce that dominance and ensure that it continues. Spender concludes:

> Mixed-sex education is preparation for 'real life' ... for in real life it is men who dominate and control; but this is not equality of educational opportunity; it is indoctrination and practice in the art of dominance and subordination. Spender, 1983

Criticisms of Stan worth and Spender

These strong condemnations of the education system are not entirely accepted by some sociologists. Gay J. Randall (1987) points out that Stanworth's work was based upon interviews and not direct classroom observation. It therefore gives some indication of what pupils perceive to be happening in classrooms, but does not actually establish, for example, that teachers give more attention to girls. Randall also quotes Sara Delamont who accuses Spender of using inadequate data and failing to specify most of her research methods so that the findings could be checked in later research.

Some research has supported the claim that overall, males dominate in classrooms, but has argued that it is not always boys who dominate. Jane and Peter French (1993, first published 1984) give an example from a class of 10–11-year-olds they studied. They found that three particular boys received most of the attention while the rest of the boys received no more attention than the girls. These boys seemed to have adopted a successful tactic of making comments that were likely to bring further questions to them from the teacher. For example, when discussing what time they got up in the morning, one boy attracted considerable attention to himself by saying that he got up at 'four thirty' – as it transpired, to feed his large number of pet animals. French and French's study suggests pupils' tactics are as important as

teacher prejudices in determining who gets attention in the classroom, and that it may be a small number of vociferous boys who benefit rather than boys in general.

Becky Francis – girls and achievement

In Boys, Girls and Achievement, Becky Francis (2000) reviews more recent work on gender achievement in the classroom, and describes her own research in this area. Francis accepts that in terms of achievement, for example at GCSE level, girls were outperforming boys by the end of the twentieth century. She also discusses reasons why boys might be under-achieving (see pp. 772–3).

However, Francis argues that the emphasis on boys' under-achievement can be very misleading. There continue to be considerable gender differences in subject choice, with girls more likely to choose less prestigious subjects (see pp. 763–5). According to Francis, women are actually becoming less likely to enrol in pure science and information technology degrees than they were a decade earlier. She also points out that the improved educational qualifications of females are not resulting in equality in the labour market, with the best-paid and most prestigious jobs still being largely male preserves.

Furthermore, she argues that despite the improvements, many of the problems first identified by researchers such as Stanworth and Spender have not been rectified. She says:

> Almost two decades on, research shows that girls' educational achievement has improved despite the continuing male dominance of the classroom, curriculum content (for example, history's focus on the lives of men) and greater demands on teacher time. Francis, 2000

As well as reviewing other research. Francis conducted her own research in three London secondary schools in 1998–9. The schools had different levels of overall achievement and were located in different areas, but all had a majority of working-class pupils. She observed four different classes for 14–16-year-olds in each school. visiting each class three times. Half the classes were in English and half in maths. In addition to classroom observations, she interviewed a sample of pupils.

Like earlier researchers, Francis found evidence that classrooms were gendered and tended to be dominated by boys. She found 'boys tend to monopolize space in the classroom and playground, and ... girls tend to draw less attention to themselves than do boys.' In eight of the twelve classes boys were considerably noisier than girls. A number of the teachers, though not all, treated male and female pupils differently. One teacher told pupils that girls tended to be better at languages while boys were better at maths.

There were a number of incidents where boys were disciplined more harshly or more frequently than girls. Francis admits that sometimes this might have reflected the greater noisiness of boys. Girls who were not paying attention tended to talk quietly rather than disrupt the classroom with more obvious, noisy behaviour. One teacher was particularly likely to treat boys and girls differently. He used:

> a very challenging style with more confident boys in his maths class, frequently putting them on the spot and using sarcasm. In turn, Mr L was far more sympathetic and kind to the girls, and he was more tolerant of any lack of understanding. This may have been because he did not want to intimidate them, but it had the effect of allowing girls to refrain from participation. A number of girls in this class sat at the back of the classroom and were observed regularly chatting together

about other subjects while the pupils (mainly boys) at the front of the class were completely engrossed in maths problems.

Francis, 2000

In some classes, other teachers also took 'a more "robust" disciplinarian approach with boys than with girls'.

Unlike researchers such as Spender and Stanworth, Francis does not just assume that these differences would only create problems for girls. She acknowledges that sometimes boys could feel picked on and this might discourage them at school. Nevertheless, she still feels that girls were getting less attention and were being challenged less to improve their performance than boys. Girls could also be disadvantaged outside the classroom. Francis observed some incidents outside the classroom where boys used the threat of violence to prevent girls from challenging their authority.

In all these respects, then, Francis found evidence that, overall, girls were still getting less attention than boys and that schools remained largely male dominated. However, in some classes there was little evidence that boys and girls were treated significantly differently. Furthermore, Francis did find that some things had changed since the research of Stanworth and Spender. For example, she found that pupils no longer took for granted the belief that girls were less academically able than boys. She also found that boys faced some disadvantages in their education. As we shall see later, Francis does not therefore argue that education simply acts to disadvantage one sex or the other. Instead, she sees education as influenced by gender (or is gendered) in such a way that both sexes face problems in achieving their potential. We will therefore, examine some ways in which she sees boys facing problems in education later in the chapter (see p. 772–3).

Gender and subject choice

Statistics on subject choice

Although inequalities of educational achievement between males and females may have declined, differences in the subjects studied by gender remain considerable. To some extent the National Curriculum limits these differences. Since its introduction, school pupils have had fewer options, because much of the curriculum has to be followed by all pupils. When choices are available to pupils, though, some subjects remain predominantly a male preserve, while others are mainly done by women.

Table 11.10 shows entries for 'A' levels in England and Wales, and for Scottish Highers, in 1996–7.

Table 11.10

'A' level entries by gender 2003

Subject	Gender	Number sat	% of number sat
Art and design subjects	Male	**11906**	**3.4**
	Female	26408	6.5
	Both	38314	5.1
Biology	Male	19987	5.3
	Female	31729	7.8
	Both	51716	6.9
Business Studies	Male	19473	5.6
	Female	13660	3.4
	Both	33133	4.4
Chemistry	Male	17499	5.1
	Female	18611	4.6
	Both	36110	4.8
Classical Studies[1]	Male	2521	0.7
	Female	3379	0.8
	Both	5900	0.8
Communication Studies	Male	781	0.2
	Female	1575	0.4
	Both	2356	0.3
Computing	Male	20714	6
	Female	7461	1.8
	Both	28175	3.8

...Cont'd.

Table 11.10 (continued)

Subject	Gender	Number sat	% of number sat
Economics	Male	12021	3.5
	Female	5795	1.4
	Both	17816	2.4
English	Male	23295	6.7
	Female	55451	13.7
	Both	78746	10.5
Expressive arts/drama	Male	4498	1.3
	Female	12723	3.1
	Both	17221	2.3
French	Male	5006	1.4
	Female	10525	2.6
	Both	15531	2.1
General Studies	Male	27677	8
	Female	30753	7.6
	Both	58430	7.6
Geography	Male	19309	5.6
	Female	16440	4.1
	Both	35749	4.8
German	Male	2473	0.7
	Female	4477	1.1
	Both	6950	0.9
History	Male	20459	5.9
	Female	21559	5.3
	Both	42018	5.6
Home economics	Male	75	0
	Female	1165	0.3
	Both	1240	0.2
Law	Male	4788	1.4
	Female	7593	1.9
	Both	12381	1.6
Mathematics	Male	35206	10.2
	Female	20711	5.1
	Both	55917	7.5
Media/Film/TV studies[1]	Male	10690	3.1
	Female	13489	3.3
	Both	24179	3.2
Music	Male	4292	1.2
	Female	4534	1.1
	Both	8826	1.2
Other modern languages[3]	Male	2474	0.7
	Female	3444	0.9
	Both	5918	0.8
Physics	Male	23595	6.8
	Female	6988	1.7
	Both	30583	4.1
Political studies	Male	5817	1.7
	Female	4002	1
	Both	9819	1.3
Psychology	Male	10193	2.9
	Female	31756	7.8
	Both	41949	5.6
Religious studies	Male	3589	1
	Female	9082	2.2
	Both	12671	1.7
Science subjects[2]	Male	3324	1
	Female	1427	0.4
	Both	4751	0.6
Sociology	Male	5837	1.7
	Female	18559	4.6
	Both	24396	3.3
Spanish	Male	1861	0.5
	Female	3920	1
	Both	5781	0.8
Sport/PE studies	Male	12279	3.6
	Female	6952	1.7
	Both	19231	2.6
Technology subjects[1]	Male	10731	3.1
	Female	6360	1.6
	Both	17091	2.3
Welsh[4]	Male	185	0.1
	Female	667	0.2
	Both	852	0.1
All other subjects	Male	3127	0.9
	Female	3660	0.9
	Both	6787	0.9
All subjects	Male	345682	100
	Female	404855	100
	Both	750537	100

[1] These titles cover a range of related subjects
[2] Science includes all science subjects except biology, chemistry and physics
[3] Other modern language includes all languages except French, German, Spanish and Welsh
[4] Welsh includes Welsh (first language) and Welsh (second language)

Source: *Guardian*, 14 August 2003

Boys were more likely than girls to enter for chemistry, physics, 'other sciences', maths, economics, technology subjects, computing, political studies, sport and PE and business studies. All these can be considered traditional 'boys' subjects'. However, boys were also slightly more likely than girls to enter for geography, history and music, which are not perhaps so usually seen as boys' subjects. Girls predominated in traditional 'girls' subjects' such as biology, all languages, home economics, psychology, sociology, art, expressive arts and drama, and were also more likely than boys to do law, media, film and communications studies and classical subjects. These figures suggest a minor shift away from traditional patterns, but there is still a strong association between gender and choice of 'A' level. Out of more than 345,000 entries for boys, only 75 were for home economics.

It could be argued that male predominance in subjects such as economics, maths, computer studies and most physical sciences means that they were more likely than females to be studying the most prestigious subjects and those most likely to lead to well-paid and powerful jobs. However, it is noticeable that by 2003, females were more likely than males to be doing law.

Similar patterns are found in higher education, as shown in Table 11.11.

Table 11.11

Students in higher education by type of course, mode of study, sex and subject group, 2000/02

United Kingdom – Home and overseas students **Thousands**

	Postgraduate level						First degree		Other Undergraduate		Total higher education	
	PhDs & equivalent		Masters and others		Total postgraduate							
	Full time	Part time	Full time	Part time	Full time	Part time	Full time	Part time	Full time	Part time	Full time	Part time
All persons												
Subject group												
Medicine & Dentistry	2.5	2.1	2.9	4.6	5.5	6.7	31.1	0.1	0.3	0.2	36.9	6.9
Allied Medicine	1.8	1.2	3.4	17.2	5.2	18.4	57.7	25.3	61.0	43.3	123.9	87.0
Biological Sciences	6.2	1.8	4.2	4.1	10.4	5.9	65.8	3.2	2.4	1.8	78.6	11.0
Agriculture	0.9	0.2	1.2	1.2	2.1	1.4	10.6	0.5	4.4	2.7	17.1	4.6
Physical Sciences	6.4	0.9	4.6	2.5	11.0	3.4	42.8	1.6	1,3	2.3	55.1	7.4
Mathematical and Computing Sciences	2.7	0.8	11.1	7.5	13.7	8.3	78.7	-6.0	15.2	16.5	107.6	30.8
Engineering & Technology	5.9	1.8	9.8	9.0	15.7	10.8	72.4	7.3	11.4	25.4	99.5	43.5
Architecture	0.5	0.4	3.9	4.9	4.4	5.3	19.5	6.0	3.2	11.1	27.1	22.4
Social Sciences	4.1	2.7	23.6	18.5	27.8	21.2	113.9	11.5	12.5	22.7	54.1	125.8
Business & Financial	1.4	1.6	21.1	39.7	22.5	41.4	110.1	13.5	30.5	70.9	163.2	125.8
Documentation	0.2	0.2	3.2	2.8	3.4	3.0	20.4	0.9	5.1	5.8	29.0	9.6
Languages	2.3	1.3	4.7	3.5	7.0	4.7	55.3	2.9	4.7	18.8	66,9	26.4
Humanities	2.3	1.7	3.9	5.9	6.2	7.6	32.6	3.1	1.3	14.4	40.2	25.1
Creative Arts	0.7	0.7	5.9	3.2	6.6	3.9	85.5	4.4	22.6	9.5	114.7	17.8
Education	0.9	3.4	26.2	38.0	27.1	41.4	44.3	5.2	2.5	15.2	73.9	61.9
Other subjects	0.7	0.5	2.7	22.8	3.4	23.3	99.8	10.6	18.3	182.8	121.5	216.7
Unknown	–	24.0	–	60.2	–	84.2	1.3	21.4	0.5	69.6	2.5	176.5
All subjects	**39.6**	**45.4**	**132.3**	**245.6**	**172.0**	**291.0**	**942.0**	**123.7**	**197.1**	**513.0**	**1311.8**	**928.9**
Males												
Subject group												
Medicine & Dentistry	1.0	1.2	1.3	2.1	2.3	3.3	13.7	0.1	0.1	0.1	16.1	3.4
Allied Medicine	0.8	0.4	1.0	4.3	1.8	4.8	13.1	3.0	9.0	4.6	24.0	12.4
Biological Sciences	2.6	0.8	1.6	1.3	4.2	2.0	24.0	1.2	1.1	0.7	29.3	3.9
Agriculture	0.4	0.1	0.6	0.6	1.1	0.7	3.8	0.2	1.9	1.4	6.7	2.3
Physical Sciences	4.2	0.6	2.6	1.5	6.8	2.1	26.0	0.9	0.8	1.4	33.6	4.4
Mathematical and Computing Sciences	2.1	0.6	7.9	4.9	10.0	5.5	60.2	4.5	11.9	9.2	82.1	19.2
Engineering & Technology	4.6	1.6	7.8	7.7	12.5	9.3	61.0	6.8	9.9	23.4	83.4	39.5
Architecture	0.3	0.3	2.3	3.1	2.6	3.4	13.9	4.7	2.5	9.2	19.1	17.4
Social Sciences	2.2	1.4	10.3	7.3	12.5	8.7	45.0	4.3	3.5	5.5	61.0	18.5
Business & Financial	0.9	1.1	11.6	21.0	12.4	22.0	52.0	5.9	13.2	26.9	77.6	54.9
Documentation	0.1	0.1	1.1	1.0	1.2	1.1	8.0	0.3	3.5	3.6	12.7	5.0
Languages	1.0	0.5	1.5	1.1	2.5	1.7	15.3	0.8	1.4	7.0	19.2	9.6

...Cont'd.

Table 11.11 (continued)

Humanities	1.3	1.0	1.9	2.7	3.2	3.6	15.3	1.2	0.5	5.1	19.0	9.9
Creative Arts	0.3	0.4	2.5	1.3	2.8	1.7	34.3	1.6	11.0	3.5	48.0	6.7
Education	0.4	1.5	7.8	11.0	8.2	12.6	10.4	1.2	1.2	4.2	19.9	18.0
Other subjects	0.3	0.2	1.4	13.0	1.7	13.3	42.8	3.8	7.8	77.1	52.3	94.1
Unknown	–	14.3	–	30.3	–	44.6	0.7	10.2	0.2	23.2	1.3	78.6
All subjects	**22.6**	**26.0**	**63.1**	**114.2**	**85.7**	**140.2**	**439.6**	**50.9**	**79.6**	**205.9**	**605.3**	**397.6**
Females												
Subject group												
Medicine & Dentistry	1.5	0.9	1.7	2.5	3.2	3.4	17.4	–	0.2	0.1	20.8	3.5
Allied Medicine	1.0	0.7	2.3	12.9	3.3	13.6	44.6	22.3	51.9	38.7	99.9	74.5
Biological Sciences	3.7	1.0	2.6	2.9	6.3	3.9	41.8	2.1	1.2	1.1	49.2	7.1
Agriculture	0.5	0.1	0.6	0.6	1.0	0.7	6.8	0.2	2.5	1.3	10.3	2.3
Physical Sciences	2.1	0.3	2.0	1.1	4.2	1.4	16.9	0.7	0.5	0.9	21.5	3.0
Mathematical and Computing Sciences	0.6	0.2	3.1	2.6	3.7	2.8	18.5	1.6	3.2	7.3	25.5	11.6
Engineering & Technology	1.3	0.3	1.9	1.3	3.2	1.6	11.4	0.5	1.6	2.0	16.2	4.1
Architecture	0.2	0.1	1.6	1.8	1.8	1.9	5.6	1.2	0.6	1.9	7.9	5.0
Social Sciences	1.9	1.3	13.4	11.2	15.3	12.5	68.9	7.2	9.0	17.3	93.1	37.0
Business & Financial	0.6	0.6	9.6	18.8	10.1	19.3	58.1	7.6	17.3	44.0	85.6	70.9
Documentation	0.1	0.1	2.1	1.8	2.2	1.9	12.5	0.5	1.7	2.2	16.3	4.6
Languages	1.3	0.7	2.0	3.3	3.0	4.0	17.4	1.9	0.8	9.3	21.2	15.2
Humanities	1.0	0.7	2.0	3.3	3.0	4.0	17.4	1.9	0.8	9.3	21.2	15.2
Creative Arts	0.4	0.3	3.4	1.9	3.8	2.2	51.3	2.8	11.6	6.0	66.7	11.1
Education	0.5	1.9	18.4	27.0	18.9	28.9	33.9	4.0	1.3	11.1	54.0	44.0
Other subjects	0.3	0.3	1.3	1.9	1.7	10.0	57.0	6.8	10.5	105.6	69.2	122.5
Unknown	–	9.7	–	29.9	–	39.6	0.6	11.2	0.2	46.5	1.2	98.0
All subjects	17.0	19.3	69.2	131.5	86.3	150.8	502.3	72.8	117.5	307.1	706.4	531.4

Source: *Annual Abstract of Statistics* 2003 (The Stationery Office, London, 2003, p.75)

In 2000–1 males were more likely to gain first degrees in physical and mathematical sciences, engineering and technology, and architecture, building and planning. In all other areas, women predominated.

It is noticeable that women have made significant inroads into some traditionally male areas – indeed, have overtaken them. They have, for example, overtaken men in gaining degrees in medicine and dentistry, and in business and financial studies. However, male dominance in scientific and technical subjects remains and considerably more men than women were taking PhDs.

Socialization and subject choice

Many of the factors that influence levels of attainment in education also influence the choice of subjects studied. Cultural factors, particularly early socialization, may encourage boys to develop more interest in and aptitude for technical and scientific subjects. When choosing which subjects to study, females and males may well be influenced by what they have learned about femininity and masculinity.

In her 1970s study, Sue Sharpe (1976) found that the girls she questioned were most inclined to choose office work as their preferred future employment, followed by a group of occupations which included teachers, nurses, bank clerks and shop assistants – all traditionally areas with high levels of female employment.

The girls interviewed rejected many jobs (such as mechanics, electricians, driving instructors and engineers), either because they defined them as men's work, or because they felt that employers and society at large defined them as such. In these circumstances it was hardly surprising that most girls saw little point in studying subjects that were traditionally the province of men.

Schools and subject choice

Sue Sharpe also recognized, though, that the education system itself plays a part in directing girls towards 'feminine' subjects. Although she admitted that schools were improving in this respect, she believed that girls tended to be steered towards arts subjects, and particularly to subjects such as cookery, needle-work and typing.

Teresa Grafton and her colleagues (Grafton et al., 1987) carried out a study of a co-educational comprehensive school in southwest England. They found that in the first and second years nearly all girls chose cookery and needlework from the craft options available, while nearly all boys chose metalwork and woodwork. It was not compulsory for them to make these choices, but the school made it clear that there were only limited places available for members of either sex who wanted to study non-traditional subjects. In this way it was made clear what were regarded as the 'normal' choices.

In the fourth year (year 10) subject choices could be made once more. The way the timetable was organized meant that the combinations pupils could opt for were limited. For example, in one set of choices, traditional girls' subjects (needlework and commercial skills) competed with traditional boys' subjects (woodwork and metalwork). Guidelines were issued to third-year tutors which stressed that all subjects were open to both sexes, but 'prior discussion' was necessary for boys who wanted to rake the 'family and child option', while girls had to show a 'sincere desire' to take metalwork and woodwork.

Grafton et al. recognized that factors outside the school were important in influencing subject choice: pupils were guided by parents, siblings and friends. The researchers also describe the choices as being 'clearly closely related to sexual divisions in the home and in the labour marker'. Nevertheless, the organization of the school timetable and the sorts of advice that pupils received from teachers played a major part in directing the girls towards traditional and predictable subject areas.

Science and gender

Alison Kelly (1987) has attempted to explain why science tends to be seen as masculine. She identifies two main reasons.

First, Kelly argues that the way science subjects are packaged makes them appear boys' subjects. She claims most science textbooks have very few women portrayed in them. From her observations of classes she found that teachers tended to use examples that were likely to be more in keeping with boys' experiences. For instance, cars were used as an example to illustrate acceleration when bicycles might have been more familiar to both sexes. In another lesson, a demonstration of eclipses was accomplished with the aid of a football. This was preceded by a conversation between the male teacher and the male pupils about the previous Saturday's football results. In such circumstances girls may feel less at home in science classrooms than boys.

However, Kelly argues that the second factor, the behaviour of pupils rather than teachers, makes the greatest contribution to turning sciences into boys' subjects. Boys tend to dominate science classrooms, grabbing apparatus before girls have a chance to use it, and shouting out answers to the questions

directed at girls. In these respects, science classrooms represent a small-scale version of society as a whole. Kelly argues:

> Boys act as if they have automatic priority over the resources of the laboratory, whether they be the apparatus, the teacher's attention, or just the physical space. One of the general principles of a patriarchal society – that males are mare important than females – is acted out in the science classroom in a way which limits girls' opportunities to learn. Kelly, 1987

Anne Colley – the persistence of gender inequalities in subject choice

Anne Colley (1998) has reviewed the reasons why differences in subject choice persisted in secondary schools in the late 1990s. She notes that the National Curriculum led to some reduction in gender differences because it restricted choices up to the age of 16, but. even so, substantial differences remained at GCSE level and even greater ones at 'A' level. Colley identifies perceptions of gender roles, subject preferences and choice and the learning environment as the most significant factors.

Perceptions of gender roles

Colley argues that research has shown that certain attributes are seen as desirable for men and a quite different set are seen as desirable for women. Masculinity is positively associated with 'self-reliance, individualism, ambition, dominance, the ability to lead, which have been summarized as instrumental'. On the other hand, femininity has been positively associated with 'kindness, being affectionate, being eager to soothe hurt feelings, reflecting a dimension of expressiveness'. Despite all the changes in society in recent decades, these remain the dominant definitions of masculinity and femininity. Colley accepts that biological differences could lie behind these gender roles. However, any biological differences are indirect and operate through social roles which have a more immediate and direct influence upon gendered behaviour.

Colley acknowledges that individuals accept conventional masculinity and femininity to different degrees. Some evidence suggests that parents' attitudes and the way they socialize their children have a significant influence on the extent to which children differentiate between masculine and feminine roles. Certainly, children vary in the degree to which they see masculinity and femininity as distinctive and different. Colley's own research has shown that this influences choice of school subjects. Girls who adhered to traditional ideas of female roles were more likely to be attracted to humanities and music as subject choices, whereas they tended to dislike physical education. On the other hand, boys who had conventional ideas of masculinity were attracted to physical education but they tended to dislike English.

Colley sees socialization and attitude to gender roles as more important than ability. For example, although girls do better than boys in most GCSE subjects, this is not the case for biology, where boys do better. However, girls are more likely than boys to go on to do biology as an 'A' level. This may be because biology is the one science subject about living things (which is seen as a feminine concern),'whereas other sciences are concerned with inanimate things (seen as a more masculine concern).

Subject preferences and choice

According to Colley, ideas about gender interact with the way subjects are perceived and taught in shaping subject choices. The images of the different subjects and the aspects of them that are stressed influence whether they can be seen as masculine or feminine. Colley uses the example of computer studies.

In 1992 only 14 per cent of those starting university computer courses were female. Computing involves working with machines rather than working with people, so this gives it something of a masculine image to start with. However, this is exacerbated by boys tending to dominate in computer studies classes. so girls get less chance to use the computers.

Furthermore, the sorts of tasks set by teachers and the rather formal way in which computers are first introduced tend to put girls off. Pupils are rarely given the chance [0 work together in computer classes and tasks tend to be rather abstract. For both these reasons girls find it difficult to like computer classes and to gain confidence in the subject. While there is no evidence that girls are any less competent, the way in which the subject is taught and boys' dominance in the classroom make girls feel less confident.

Even if subjects tend to be seen as masculine or feminine, this can change depending upon the content of the curriculum. For example, music – traditionally seen as a feminine subject – has become more popular with boys in recent years. The main reason seems to be the increased use of computers and electronic instruments, which have led to music being seen as a more technological and therefore masculine subject.

The learning environment

As well as the image of subjects, the overall learning environment also influences subject choices. One factor which might be important is whether a school is single-sex or mixed. Colley reports research by Lawrie and Brown (1992) which found that girls in a mixed school tended to see maths as more difficult than did girls in a single-sex school. Furthermore, girls in the all-girl school were more than twice as likely as those in the mixed school to go on to study 'A' level maths. However, this research only compared two schools, so it is dangerous to generalize from the findings.

Other research has reached contradictory conclusions about whether all-girl schools help to make it easier for girls to be attracted to scientific and technical subjects. There is some evidence, though, that girls are more confident in such subjects when they are taught in single-sex classes within mixed schools. For example, there have been some successful experiments with girl-only computing sessions in schools, where girls were encouraged to work alongside their friends. Colley comments: 'participation was encouraged by undertaking computing activities on their own terms in a manner which fits their preferred style of working.'

Conclusion

Colley concludes that subject choice continues to reflect:

> adult male and female social roles and the abilities and attributes assigned to males and females on the basis of these roles in the gender stereotypes of academic subject areas. The information contained in these stereotypes is acquired during socialization and reinforced by prevailing beliefs, observations of the status quo, and educational practices which themselves are influenced by the same stereotypes. Colley, 1998

These stereotypes need to be challenged in the education system itself if differences in the subject choices of males and females are to be reduced. Ways need to be found to make subjects seen as masculine attractive to girls, and subjects seen as feminine attractive to boys.

Haralambos, M., M. Holborn and R. Heald. 2004. Reasons for the under-achievemnet by males. In *Sociology: Themes and Perspectives*, 6th edn. London: Harper-Collins, pp. 769–771.

Female improvement, moral panic or male under-achievement?

As discussed earlier, by the mid-1990s there was increasing concern that males were under- achieving in the education system. In fact, the educational achievements of both males and females have been increasing over recent decades, with more people gaining higher-grade GCSEs, passing 'A' levels, and getting degrees. However, the performance cf females has improved faster than the performance of males. which. as we have seen, has led to females gaining more qualifications than males in some areas.

These changes can be interpreted in a number of ways.

The improved achievement of women

First, they could be seen primarily in terms of the improvements in female achievement. A number of general factors might account for the improved performance of females in education:

1. Changes in the labour market – with the decline of heavy industry, the increase in service-sector work, the increasing employment of 'flexible' part-time workers and workers on fixed-term contracts have all increased employment opportunities for women. The rapid rise in the employment of married women, especially since the Second World War, has increased the incentives for women to gain educational qualifications.

2. These changes may be reflected in changing attitudes among females. When Sue Sharpe repeated her 1970s research or, teenage girls in the 1990s (see p. 760) she found that their priorities had changed. They no longer attached primary importance to marriage and having children, and instead 'almost unanimously endorsed the importance of having a job or career and. in this respect, emphasized being able to support themselves'. They therefore attached much more importance to education than their counterparts had in the 1970s.

3. The women's movement and female sociologists have drawn attention to gender inequalities in education. In doing so they have encouraged teachers to become more aware of the issue and have persuaded some to change their practices so that they are less likely to disadvantage female pupils and students. Some schools and local education authorities have taken initiatives designed to improve educational opportunities for girls.

The moral panic about men

Second, these changes could be seen as no more than a moral panic or a backlash against feminist views on education.

Gaby Weiner, Madeleine Arnot and Miriam David (1997) are somewhat sceptical about the sudden discovery of male under-achievement. They argue that the media have created a misleading moral panic which exaggerates and distorts the extent and nature of any problem. They say:

> Rather than celebrating girls' achievements and aspirations, we now have a discourse of male disadvantage in which boys are viewed as falling behind in academic performance. The discourse also has powerful class and racial dimensions, with the impact of black and/or male working-class under-achievement interpreted as a threat to law and order. Weiner, Arnot and David. 1997

Although the media are also concerned about the under-achievement of white, middle-class boys, they

see black and working-class under-achievement as a particular problem because it is likely to lead to unqualified, unemployable black and working-class men turning to crime. In short, the discourse links male under-achievement to ideas about the existence of an underclass (see pp. 268–75 for a discussion of the underclass).

Weiner et al. accept that some changes have taken place. For example, the introduction of GCSEs has led to more females taking and succeeding in exams at 16; and the National Curriculum has reduced gender differences in subject choice up to 16. However, the differences in subject choice emerge at 'A' level, and boys continue to get higher grades than girls in 'A' levels. Thus Weiner et al. believe female rather than male under-achievement is still characteristic of the education system at higher levels. They say:

> What we have is a rather more complex picture than hitherto indicated: it seems neither so bleak (for boys) nor as rosy (for girls) as has been depicted in the media and elsewhere. Girls have clearly made improvements since the 7970s in examination performance up to 76, but patterns are not nearly so clearcut past 76. Weiner, Arnot and David, 1997

What is occurring is simply a 'backlash' against female success (see pp. 138-9 for a discussion of the idea of an anti-female backlash). Men feel threatened by even the possibility that women might become equal and have used the question 'What about the boys!, effectively achieving a swift reassertion of male educational interests'.

Weiner et al. put forward a strong case in arguing that concern about male under-achievement might be exaggerated. Certainly, there is little evidence that females are becoming much more successful than males in the higher reaches of the education system. Nevertheless, some males have always found it difficult to achieve success in the education system. The new concern with male performance in education might be useful for highlighting some problems that they face. It can also be argued that it is just as valid to explore ways of raising the achievement of boys as it is for raising that of girls.

The under-achievement of males

The third way of looking ac these changes is co see them in terms of the under-achievement of males. From this point of view, males are achieving less than they could and should do in the education system. Although this is usually portrayed as a new problem, many of the possible reasons for any under-achievement may not be new at all. Indeed, some of them may be class related, and may in the past have been seen as primarily class issues rather than as problems of masculinity.

Whether the changes outlined above are interpreted as improvements in female achievement, as grossly exaggerated by a moral panic, or as indicating male under-achievement, it is clear that some changes have taken place. Most attempts to explain them have used the approach which sees them as indicative of male under-achievement. One such attempt will now be examined.

Eirene Mitsos and Ken Browne – Boys' under-achievement

The achievement of boys and girls

Mitsos and Browne (1998) believe that boys are under-achieving in education, although they also believe girls are disadvantaged. The evidence of boys' under-achievement, according to Mitsos and Browne, is that:

> Girls do better than boys in every stage of National Curriculum SAT [Standard Assessment Tests] results in English, maths and science, and they are now mare successful than boys at every level in GCSE, outperforming boys in every major subject … except physics. Mitsos and Browne. 1998

They point out that girls are now more likely to stay on in education after reaching 16, and to go on to

higher education. However, they note that girls are still under-represented in science and engineering subjects; they do less well in 'A' levels than boys with the same GCSE grades; in society as a whole women are less well qualified than men; and women still do less well in paid employment than men with similar qualifications. Thus, Mitsos and Browne adopt a balanced position. There are problems for women in education, which prevent them from fulfilling their potential, but there are also problems for men. At least some of the problems faced by each sex are rather different.

Reasons for improvements in girls' achievement

First. Mitsos and Browne discuss why girls' achievement has improved so much in recent years. They identify five main reasons:

1. The 'women's movement and feminism have achieved considerable success in improving the rights and raising the expectations and self-esteem of women.' Women are more likely to aspire to careers that require high levels of qualifications, and are therefore motivated to succeed in education.

2. Sociologists have highlighted some of the disadvantages faced by girls, and, as a result, equal opportunity programmes have been developed, which have improved opportunities for girls.

3. The increase in service-sector jobs considered suitable for women, and the decline in predominantly male, unskilled work, have opened up job opportunities for women, providing added incentives for them to gain qualifications.

4. Evidence suggests girls are more motivated and hard-working than boys in school work. Mitsos and Browne claim: 'Research shows that the typical 14-year-old girl can concentrate for 3-4 times as long as her fellow male student', and girls tend to be better organized than boys. Girls' greater motivation and organizational skills may give them an advantage in coursework, which now counts for more in assessments than it did in the past.

5. Mitsos and Browne say 'by the age of 16 girls are estimated to be more mature than boys by up to two years'. They therefore take exams more seriously than boys do.

Reasons for boys' under-achievement

Mitsos and Browne then go on to suggest a range of reasons why boys do less well than they could:

1. Teachers may tend to be less strict with boys, giving them more leeway with deadlines and expecting a lower standard of work than they get from girls. This can allow boys to under-achieve by failing to push them to achieve their potential.

2. Boys are more likely to disrupt classes. They are considerably more likely to be sent out of the classroom than girls, resulting in them losing learning time in class. Furthermore, boys are much more likely to be expelled: some 80 per cent of those permanently excluded from schools are boys.

3. The culture of masculinity encourages boys to want to appear macho and tough. They are therefore more likely to develop an 'anti-education, anti-learning subculture, where school work is seen as "unmacho"'.

   This is the sort of subculture adopted by the 'lads' in Paul Willis's Classic study (see pp. 702–4). Because of this tendency, boys may lack the dedication and perseverance necessary to succeed in coursework.

4. The decline in male manual work may result in many working-class boys lacking motivation. They see little point in trying hard at school if it

is unlikely to result in the sort of job they would be seeking. The lack of opportunities for some groups of men may lower the self-esteem and confidence of boys from the same groups.

5. Paradoxically, though, research suggests most boys overestimate their ability. Mitsos and Browne quote research which shows that at GCSE level boys tend to overestimate the grades they will achieve, while girls tend to underestimate them. These over-confident boys may not work hard enough to achieve the sort of results they expect to get.

6. Some evidence suggests girls are more likely than boys to spend their leisure time in ways which complement their education and contribute to educational achievements. Mitsos and Browne say. 'To simplify and generalize: while boys run around kicking footballs. playing sports or computer games and engaging in other aspects of "faddish" behaviour, girls are more likely to read or stand around talking.' Girls therefore tend to develop their linguistic skills more than boys and. since 'school is essentially a linguistic experience', this puts boys at a disadvantage.

   Mitsos and Browne place particular emphasis on reading. Women are more likely than men to read books, and mothers are more likely than fathers to read to their children. Girls are therefore more likely than boys to have same-sex role models to encourage them to read. Furthermore, when they are young, girls are more likely than boys to read fiction. It is mostly fiction that is read in the early years at primary school. This may give girls an early advantage in reading.

Conclusion

Mitsos and Browne conclude that, underlying the factors that contribute to male under-achievement, is 'an identity crisis for men'. With an increase in female employment and a decline in some traditional areas of men's work, it has become more difficult for boys to see their future in terms of being a family's breadwinner. For some males at least, 'the future looks bleak and without clear purpose to them'.

However, Mitsos and Browne are careful to balance such comments with a recognition of continuing disadvantages for girls in education and women in society as a whole. They say: 'girls still have marked disadvantages, such as underrating themselves and lacking confidence in their ability, getting less of teachers' time and having to tolerate the dominance of boys in the classroom.' Once they leave school, they find that men still hold most of the highest status and powerful positions in society.

Halliday, E. 1991. Education and Society in St Kitts and Nevis. In *Education and Society in the Commonwealth Caribbean.* Edited by E. Miller. Mona Jamaica: UWI Institute of Social and Economic Research, pp. 27–33, 38–39.

Introduction

Caribbean education systems are the creatures not the creators of their respective societies. Historically, the aims, objectives and assumptions of education in mini-states of the Eastern Caribbean, such as St. Kitts and Nevis, have been the reflections both of the harsh realities of the society, from which the educational systems emerged, as well as expressions of ideals to which educational and political administrators had hoped their countries would have aspired. In more recent times, stated aims and objectives, perforce, are couched sometimes in popular language which appeals to, and often, mirrors the ambition of a demanding, and not infrequently, an unsuspecting public.

As such, educational aims and objectives negotiated and formulated in the specific socio-economic and political milieu of Caribbean society, despite their vastness, variety and multiplicity display a common denominator, namely, the notion of education for development, and notably a preoccupation with education for enhancing employment opportunities particularly, for school leavers.

Further, a popular assumption has been that existing inadequacies of formal educational institutions constitute significant bottlenecks which frustrate the development process. Certain factors inherent in developing island states, like St. Kitts and Nevis do set parameters for development. Many attempted reforms have resulted in disillusionment, for there has been a tendency in redressing problems relating to underdevelopment, to cosmetize manifest ailments rather than to eradicate more deep-seated causes. Society like its institutions, is in transition from underdevelopment to development.

In the evolution from a rigidly stratified slave society to independence, the educational institutions reflected societal strengths and weaknesses. Firstly, an education system emerged to support and perpetuate the social, political and economic status quo, but after whetting the aspirations of the predominantly negro population, facilitated only limited social and economic mobility in the immediate post-emancipation era. As a result black political consciousness emerged only after a long process of acculturation, rather than through liberation education, for strongly entrenched interest groups both at the centre and the periphery, would neither have tolerated nor supported an education system which threatened the existing status quo.

To a large extent educational institutions were replicated in the periphery states from the dominated metropoles, with traditional grammar schools catering for an economic and social elite and terminal elementary education for the masses. In keeping with the assigned roles of colonial people, the curricula were manifestly devoid of technical and vocational offerings. In the post-independent era:

(a) educational policy, has been pre-occupied with redressing the scars of the colonial legacy; but

(b) hesitancy has been expressed, as to whether the approach should constitute a total break from the colonial past, or whether policy action be oriented towards linking culled aspects of former history with preferred educational future;

(c) different Caribbean territories have flirted with various shades of capitalism and/or socialism, but in some respects are still in a state of dependency.

Possibly, as a way forward, Caribbean states, often rife with acrimonious political rivalry, increasingly need to agree on a limited set of policy objectives for the development of education and society. In turn,

policy should be informed by judicious educational philosophy. To find its fullest expression, "We must have conceptions of the kind of persons we wish to produce, before we can have any definite opinion as to the kind of education we consider best". (R. Russell, requoted in UNESCO, 1980). Again, "training systems need a training policy... a sense of direction in what they do" (Norrag News 1988).

The pseudo or crisis planning of an earlier period, must give way to systematic planning informed by indigenous research. Educational planning in the post-independent epoch, should consistently demonstrate the capacity to deal with the instrumental or immediate short-term objectives, within the framework of more intrinsic long-term developmental goals.

Definition of Terms and Scope of the Paper

Education is being defined in this paper as the sum total of the learning experiences which individuals acquire throughout a life time. Technical and vocationally oriented education is used in the restricted sense of the practical specific skills imparted by a programme of studies designed to prepare the young for direct absorption in the world of work, and includes such subjects as Secretarial and Business Studies, Agricultural Science, Hotel and Catering various branches of Engineering and Building Studies. The definition also takes cognizance of the numerous pre-vocational courses designed to orient or initiate students into practical subjects which could be further pursued for clearly defined occupational roles at a later stage in the child's development. Some of these subjects include Home Economics, Metal and Woodwork, Art and Craft, Dressmaking, which are usually part of the curricula of secondary or post-primary schools. The paper, however, recognises the reality of Kittitian-Nevisian society, whereby a good general education also prepares one for orientation into many occupational roles, particularly blue and white collar jobs.

Traditionally then, vocationally-oriented education in the Federation of St. Kitts and Nevis has been provided:

1. (a) at secondary level by the former Grammar School for Boys and the High School for Girls and more recently by a network of Comprehensive High Schools and All Age Schools, and

   (b) at post-secondary level at the College of Further Education

2. Non-formally, through the Apprenticeship system mainly at the SSMC, on-the-job training which several large industries, corporation and firms undertook in their own self-interest, and more recently a number of Adult Education initiatives and an organised GAS non-formal skills programme run in collaboration with the Government of St. Kitts and Nevis.

3. Informally through indigenous, home or family based cottage type industries. This aspect should not be overlooked, for through such an informal system has emerged significant numbers of semi- skilled artisans, cobblers, shipwrights, seamstresses and hairdressers who eke out a living in the rural and urban sectors of our economy.

The inherent limitations of the formal education sector in preparing the young for the world of work, has long been recognised. So although the public education system is charged specifically with Technical/Vocational preparation, many other government agencies and institutions, as a matter of deliberate policy do undertake, or voluntarily collaborate with the formal sector to supplement and compliment vocationally-oriented education. Further it is recognised that in the interest of efficiency and profit- maximisation specific on-the-job training is also carried out by many non-governmental organisations. The Adult and Continuing Education Sector of the Department of Education has a whole range of programmes for young adults, for example, Cake Decoration, Job Training Skills, Dressmaking,

Secretarial courses in Typing, Shorthand, Accounts, Office Procedures, Plumbing and Masonry. The Women's Desk of the Ministry of Women's Affairs the Youth and Community Department, Agricultural Extension Unit, the Public Works Department, St. Kitts Sugar Manufacturing Cooperative, the Hotel Association, the Tourist Bureau, Business and Professional Women, all collaborate in providing supplementary training to what has been achieved at the Formal Education Sector.

Society is used in a limited sense to mean the set of institutions which provide a framework for social life. Society "is the web of social relationships and it is always changing". (Maciver and Page, 1962, page 5.)

Caribbean in this paper refers only to the former British West Indian Political Unit extending from Belize in the North to Guyana in the South.

Firstly the paper argues that education as a subsystem of society interacts with other subsystems of the society. As such education is either created, or is tremendously influenced, by those same subsystems.

Secondly a historical perspective of education is given in the context of the pre- and immediate post-emancipation era, showing the interaction of church and school to accomplish the aims and objectives of that society, and how other organisations like the trade union movement impacted upon society.

Thirdly, the issue of fragmentation and regionalism in the Caribbean is discussed, since the pull or push towards insularity and integration movement either credited or influenced existing educational institutions and programmes both within the wider Caribbean society, and at the national level as well.

Fourthly, the dominant typology, the economic base or the region, will receive some brief attention. The argument is that economic factors do set certain parameters for development and seriously circumscribe what could be accomplished through education. Although the region endeavours to collaborate in an effort to find solutions, the dominant typology fuels a tendency towards insularity.

Fifthly, the paper alludes to the all-pervasiveness of competitive party politics, by no means insignificant in the Caribbean, and also attempts to show how the political process impacts upon education, which in turn is impacted upon by it.

Sixthly; the education system of St. Kitts and Nevis will be outlined, as indicative of an attempt to show how one particular mini-state has endeavoured to respond to certain aspects of educational problems in a Caribbean setting. However, certain issues - culture, illiteracy, and non-formal education - not mentioned in the regional context were focused upon, and given a national perspective. Not all the key issues of the education sector were dealt with. It was felt prudent to select a few points rather than give a superficial treatment of the vast array of issues, which are undoubtedly linked with education and society in the Caribbean.

Historical Perspective

In the pre- and post-emancipation era, society had three main objectives. The administration and the economic exploitation of the mines and plantations, political domination and control of the islands, and the maintenance of a rigidly stratified society. Two social institutions were created or designed to underpin these objectives; they were the church and the school, and in many respects they were inextricably and inseparably
limited. Not that no church existed in the Caribbean prior to the introduction of slavery, nor that no secular school existed for the white minority who preferably sent their children to be educated in Europe. The point rather is, that where the established churches failed in their ministering to the predominantly black population, the non-established churches came into existence later, to fill that existing vacuum. Since illiteracy was a barrier to the proselytizing endeavours of the church, reading was actively promoted, as an aid to the hymn singing and catechism exercises.

As a form of political control, the church taught duty and obedience to their masters, while at the same time the medium of secular education was useful in counteracting irreligion, ignorance and insurrection which had engulfed the French islands (Cox, 1984).

The ruling class in any Caribbean society, "has not been, historically, a homogeneous group" (Thomas, in Davies, ed. 1986 p. 63). In the pre-emancipation era, colour or racial ethnicity determined one's class origin, (Goveia, 1965). What has been consistent, over time, is the attitude of the upper class to education, as a mechanism for regulating and controlling society.

One of the earliest and most potent aspects of the class struggle within Caribbean society, the betterment, and social and moral upliftment of the negro or the coloured races, was embodied in the zeal and commitment of early missionary endeavours, whether Anglicans, Methodists, or Moravians. There was however, an inherent contradiction in the task of the early missionaries, for the religious education and moral training of the church, proved to be "a useful mechanism not for bringing about social change, but rather for maintaining the status quo" (Cox, 1984 p. 112).

The Negro Education Grant (Augier, 1962) was the Imperial Government's first systematic attempt to provide education to the non-white population of the islands. One off-shoot of the Negro Education Grant was that "the mass of the population was converted to Christianity, and the formal membership of all denominations was multiplied many times" (Gordon, in Walters, 1960 p.3).

A significant aim of those religious bodies, whether in Britain or the colonies, was to ensure the ability to read the bible for religious instruction, both as an antidote to a potentially troublesome lower class, and also to "stamp out local versions of myalism and obeah or to check specific lapses in general morality" (Gordon in E. Walters, 1960). The early beginnings of cultural alienation, and the imposition of upper and middle class values, on the lower class thus run deep in Caribbean society.

Elementary schools were spawned as institutions for the masses in St. Kitts and Nevis, while grammar schools were initiated specifically for sons of the nobility (Natheison in Alumni Reunion, 1985). In that way the dangers of mixing the classes was obviated (Augier, 1962). In some countries, Barbados for example, benefactors left "educational endowments to provide charity schools for white children only" (Grant 1968). As (Miller, 1986) later surmised "the apportioning of the ruling white minority of elementary education for Blacks, and secondary education for Browns was part of the overall effort to maintain as far as possible the status quo that existed in the slave society."

In St. Kitts and Nevis, parents regard education as a vehicle for social mobility since its credentialisation mechanism provides the requisite passport to the limited number of white and blue-collar jobs available in society. Again the root for that is buried in slavery, for parents had waited eagerly for the dawn of emancipation to sever themselves and their children from estate labour, deemed the most degrading of occupations.

But in St. Kitts and Nevis, as in any society, "the education system being part of the culture, has two supplementary functions, to be a mirror that reflects society as it is, and at the same time, to be an agent of societal change and a force directed towards the ideal of society" (RJ. Havighurst and B.L. Newgarten, 1962, p. 274).

Not only schools, but the Caribbean trade union movements have been the creatures born out of necessity in society. It is a generally accepted fact that the labouring class after 1838, was still oppressed by the plantocracy. Inadequate housing conditions, limited social amenities, and no representation in the planter class dominated assemblies, typified the lot of the predominantly negro population.

Mobilisation to combat the oppression of the labouring class, and the birth of formal trade union organisation, which later spawned working class political parties became a characteristic feature of Caribbean society. As Gonsalves opined:

> When slavery ended in 1838, the capitalist mode of production, was ushered in slowly at first, but more fully later as its links internationally with monopoly capitalism developed. These material factors. ..fuelled the growth of the procedure forces of capitalism out of which a working was formed and gradually developed.

Apart from the fact that martial law was proclaimed to force the ex-slaves in Kitts to return to work on the estates (Augier 1962), a whole series of legislations were enacted to compel negroes to labour, for example, the Breach of Contract legislation compelling workers to contract themselves out as labourers on specific plantations. These were further strengthened by Acts introduced in different territories to debar the establishment of Trade Union Organisations.

In St. Kitts and Nevis, the Universal Benevolent Association of 1917 was the earliest recorded organisation to combat the oppression of the working class. Resistance to oppression came to a head during Buckley's Riot of 1935.

In its aftermath a trade union was born in 1937, but was inhibited because of regulations. The Trade Union Act Number 16 of 1939 reversed the Combination Acts, paving the way for the St. Kitts and Nevis Trades and Labour Union to be registered in 1940. Its first Secretary-General, Mr. J.N. France still holds that position in an unbroken record of fifty years. Another executive member, Mr. Edgar Challenger, once active in politics, also survives. Further, the St. Kitts and Nevis Trades and Labour Union, is the base, and creator of the political party, called the St. Kitts and Nevis Labour Party, from among whose ranks the same J.N. France has remained an unbeaten candidate for his constituency until March 1989 when the National Assembly was dissolved to make way for general elections.

Although the Commonwealth Caribbean had no militant "pedagogy of the oppressed" as in Freire's, Brazil, the dynamism of the Trade Union Movement of the 1940s-1960s provided a similar social consciousness, and through the watchwords "educate, cooperate and federate", spawned an equivalent political consciousness.

The church, school and trade unions are powerful institutions in Caribbean society.

The Impact of Politics on Education and Society

Within Caribbean society economic factors also articulate and dovetail with identifiable political tendencies (Stone, 1986). Further in the commonwealth Caribbean, the most persistent political base has been that the competitive party systems. If politics is defined as "the art of who gets what, when and how" (Dove, Comparative Education 1980) then it would be appreciable "how educational systems in the Caribbean, are constrained by the power and influence of other power contenders in the domestic or political arena" (Stone 1986). Because of accountability to and influence by an electorate in a context where competitive parties seek to court support from the electorates, decisions are sometimes based on political expediency rather than intrinsically educational goals.

There is also another important consideration. It is through education that political leaders acquire the capacity to initiate and sustain economic development and the willingness and capacity to carry out reform (Goldthorpe 1975). Hanf, (Comp. Ed. 1975) though he argued that education could be an obstacle to development, was willing to concede that in almost all the newly independent countries, the political leaders came from the ranks of those who gained education or scholastic achievement, a point of view supported by Dove (1979) who traced

the rise and fall of leading professionals or teachers in the politics of ex-colonies. Both writers have in effect depicted the St. Kitts and Nevis situation where leading politicians, all the pioneers, the Prime Minister, and local governors were mai1lly teachers or professionals who came from humble origins. Education impacts through the political process on the leaders and the led. It is through education that a new political culture is created and obsolete political structure inimical to economic growth is removed. There is a common saying "knowledge is power" which is quite demonstrable in St. Kitts and Nevis, where education formal and non- formal is concerned with the formation and distribution of power, as will be further substantiated below.

Education could both be subservient to and a factor influencing the political process. In the latter respect it depends on the capacity of the administrators and economic personnel of the nation. Pye (1963) maintained "that nation building is dependent on bureaucracies that are staffed by psychologically secured personnel; in the absence of such people in -the major bureaucracies nation-building cannot proceed". Beckford, (1973) in part attributes the persistent backwardness of small scale economies in the Caribbean to "lack of political advancement", a point of view more explicitly put by Bacchus (1980) who observed that a crucial factor in the under-development of the Caribbean was lack of local government, and where they existed they failed to develop as a dynamic force in the political system.

Finally, to drive home the point more forcefully that the political process influences and impacts on education because of the pressure of social and private demand, the notion of accountability to the electorate, and the competitive nature of party politics on institutional development in mini-states of the Caribbean, like St. Kitts and Nevis; the following two extracts from newspapers published on 25 February, 1989, are included for the scrutiny of the reader:

(a) The Labour Party "brought internal government to our country...a significant step... to independence... in the decolonisation process. It is no accident that this historic achievement in the development of a people coincided with the comprehensivisation of the education system so that the poor and ordinary people could benefit".

Extract from the Labour Spokesman. Newspaper of the Main Opposition Party

(b) "Our young people; we started training them... We must train, we are living in a new age... of computers, and so it isn't a question of just taking young people and hustling them into jobs... we have got to prepare them. We've started a Youth Skill Programme. We have put computers, typewriters, sewing machines into the schools of this country, we have taken an education system, that had only a vision of a Sugar Economy and converted it into an education system that visualises growth in a diversified economy".

Extract from the Democrat. Official Voice of the Government, or Ruling Party

Campbell, C. 1992. *Colony and Nation: A short history of education in Trinidad and Tobago*. Kingston, Jamaica: Ian Randle Publishers, pp. 66–75.

The Early Nationalist Movement

Agitation for some form of self-government started as soon as the English arrived in Trinidad in 1797, but the commencement of the modem nationalist movement dates from the end of the First World War. The standard-bearers of this movement were Capt. Cipriani and the labour unions. The raci2.l divide between Indians and blacks hampered the labour movement. As a minority with a distinct culture looking often to India, the Indians did not take the lead in the evolution of nationalist sentiment for Trinidad, and often were fearful of nationalism or opposed to it. This was more or less the position from the beginning of the nationalist movement in the 1920s to its culmination in independence in 1962.

The Second World War created a whole new world order more favourable for decolonisation and nationalism than anything previously. Because of the inherent difficulty of uniting the people, the toughness of the employer class, the cleverness of the English overlords and the ineptness of the black and colored political leaders, the nationalist struggle did not advance singlemindedly after the Second World War. No political commentator has had anything edifying to say about the politics of the country between the mid-1940s and the mid-1950s. But the island did register two important political gains in this period: universal adult suffrage and the inauguration of a ministerial system of government.

The Early Career of Dr. Williams

The long regime of Dr. Eric Williams and the PNM was preceded by a period of some 23 years in which providence seemed to have prepared him for the role of nationalist leader and modern father of the nation. Sent away in 1932 to study history at Oxford University as an island scholar, Williams distinguished himself as an undergraduate and won awards to do historical research into West Indian history, leading to a PhD at the same university. Williams' research and experiences in the USA. where he lived from 1938 to 1948 shaped his consciousness as a West Indian nationalist; and during and after the Second World War when decolonisation was a burning issue in all colonies, he emerged from his academic post in Howard University as a spokesman for the Caribbean. Having consolidated his academic reputation by early scholarly publications, one of which, Capitalism and Slavery, brought him international recognition, he gained employment with the newly created Caribbean Commission and was stationed as an international civil servant in Trinidad from 1948 to 1955. Eventually the contradictions between his nationalist posture and political interests on the one hand and the conservatism of his imperial employers on the other broke down, and Williams was dismissed, which cleared the way finally f6r a full-time political career.

Political Economy Under Dr. Williams

A brief account of the political economy of Trinidad and Tobago under the long regime of Dr. Eric Williams (1956-81) and the PNM (1956-86) will provide an essential context for the remarkable education policy of the government. Within the first five years of the regime (1956-61) education was acknowledged as the most successful aspect of government policy, and at the end of the regime 30 years later, popular judgement was strongly of the same opinion. In their first five years in office Dr. Williams and the PNM had the greatest impact for good on the society; here was a disciplined nationalist party in power for the first time, with a programme designed to raise the standard of living by spreading social welfare measures and to create a national community. No longer was social development the key kind of development; the island was to be developed economically. Economic policy was based on the Puerto Rican model of the industrialisation by invitation; the creation of jobs was a high priority. Since this type of policy was not known to effect equality, the main hope for more equality was

through education and public employment. People felt that only in education was equality in evidence through the expansion of secondary schools and the working of the Common Entrance examination.

Williams was the most radical prime minister of any Commonwealth Caribbean territory in the later 1950s. He and his party identified the chief internal enemies as the same forces which had supported British imperialism and colonialism: the English officials; the English settlers; the Roman Catholic church; the white business elite; the white creoles and the backward sections of the black and coloured middle class. Also among the colonial oppressors was the mass media, especially the Trinidad Guardian. Although it was Williams' plan to carry the Indian working class with him, he was unable to do it for the most part, and he alienated many of them by attacking their leader Bhadase Maraj. While attacking his internal enemies, he challenged the right of the USA to its base at Chaguaramas, and carried West Indian nationalism to new and dizzy heights, though with less than anticipated results. In the field of education in these years the golden achievement was a large-scale expansion of free secondary education.

Dr. William and the PNM Under Pressure

The decade between 1963 and 1973 was difficult for Williams. A Black Power movement developed and almost toppled his regime in 1970. The root of his problems was the failure of his economic policies to create jobs fast enough or to secure any serious redistribution of income. Williams declared a state of emergency in 1970 and by other repressive measures defeated the Black Power movement and its armed wing. Wisely the regime began to search for new economic policies. Without becoming explicitly socialist, the government turned away from complete dependence on the private sector, and sought to rely on itself as the engine of economic growth. Certain areas of the economy would no longer be open to entry by foreign capital; the government would not allow foreign capital to be employed unless in joint ventures with a meaningful proportion of ownership falling to the government. If in the political economy of the country in these years the emphasis was on recovery from false starts in economic and social policies during the first period in office, in the field of education all eyes were on planning for a new future in which new curriculum directions would take the country away from a colonial system of education and training. Hence the centrality of education planning and multiple reports from education committees and working parties.

The Miracle of Oil Boom

Williams announced at his party's convention in September 1973 that he desired to quit the leadership of the party and to retire from politics. Whatever his motives or strategy, a sudden turn in the economic fortunes of the country provided good reasons for him to remain in office. An unforeseen and dramatic rise in oil prices pitchforked the nation from a balance of payment deficit of TT$32 million in 1973 to a surplus of TT$694 million in a matter of months. It was now possible to move nearer to the PNM's dream of a welfare: state by increasing old age pensions, subsidising food for the poor, public transportation and books for students, and reducing income tax. At the same time the government began to have the money to implement its nationalist economic thrust by buying majority shares in firms and setting up government companies. After 1975 came the momentous decision to transform the nation into an industrial state by resorting to heavy industry, chiefly petrochemicals. No wonder that Dr. Williams sought to match these economic plans by a massive input of technical and vocational training, including specialised crafts, into the education system.

The negative and positive effects of the oil boom in the long run were felt by all contemporaries. Unemployment was drastically reduced as the construction industry boomed and the civil service ballooned; everybody, blacks, Indians, white creoles, the private sector benefited from increased incomes and new economic opportunities. As might be expected, agricultural output fell seriously as labour was drawn away from farming; the food import bill and luxury spending on consumer goods reached

unimagined heights; so too did prices of all goods and services. From 1974 to about 1981 Trinidad and Tobago enjoyed a high level of prosperity, but without solving its fundamental problems. On the level of politics the discipline of the PNM fell to pieces and the country failed to develop a viable two-party democracy. The ineptness of the opposition parties was striking.

By the end of the 1970s Williams was himself increasingly a lonely, sick, frustrated man. There was a tremendous amount of corruption in his party; some of W1lliams' old enemies; the media, the Roman Catholic church, the white-dominated private sector, were still very much in place; the PNM had lost the moral high ground; the nationalists had failed to bring about the transformation of society they wished for, despite large state revenues. The education system at best was only partially decolonised. Wlliams died in March 1981, a disillusioned man.

The Last Years of the PNM Regime

To the consternation of many, the PNM was retained in power in the elections of 1981. George Chambers who succeeded Williams as political leader and prime minister, was very much unlike Williams in most important respects. When the PNM was voted out of office in 1986 it was the result of the long desired but elusive alliance between the Indian opposition party and an organised party of black creoles opposed to the PNM. The Indians had to share power with blacks in order to take power. After years in the political wilderness, A.N.R. Robinson as prime minister in the new government found himself obliged in 1986 to pick up the pieces of a collapsed economy. The last years of the PNM in office coincided with the slump of the regime of high oil prices, first to tolerable lower levels and then to dismal levels which could not support the standard of living of the people or the bloated financial obligations of the government. The PNM under Chambers chose to keep government support for its welfare programmes to the needy sections of the population for as long as possible, and although some subsidies were knocked off, the government resisted a general programme of retrenchment of expenditure.

Using hindsight, many ordinary Trinidadians and Tobagoians and economists came to realise in the harsher economic climate of the mid-1980s that Dr. Williams' nationalist economic thrust into a programme of heavy industries ten years previously had hardened into a financial millstone around the neck of the economy. The high prices on international markets envisaged for the products of the petrochemical plants simply had not materialised, and the government had to subsidise them to the tune of millions of dollars annually. Oil at reduced prices is still at the heart of the Economy, not heavy manufacturing. With dwindling revenues and high indebtedness the government of Robinson had to undertake a painful scaling down of the welfare state; plus a partial withdrawal of direct government participation in the economy. Education expenditure naturally fell on stony ground and improvement of quality with existing or reduced resources, not expansion, became the focus of education policy.

Nationalism and Education

A key theme in the education policy of Williams and the PNM government was the attempt to build a nationalist education system responsive to the will of the sovereign government, and not to that of clerics or foreign heads of churches. In an ethically and politically divided society it was unthinkable that a nationalist government could overlook the transforming potential of education. Dr. Williams and the PNM hoped to use the education system to bring about social integration and economic development, the former chiefly by bringing youths of different races and classes into the same schools, and the latter by down-playing the colonial grammar school type of secondary education to the benefit of technical and vocational education and training benefiting a country bent on industrialisation. The consequent centralisation and consolidation of government power over education was just one point of a multifaceted process of nation building common to several Third World countries in the postwar era.

Dr. Williams himself was anti-clerical and opposed to denominational schools which he stigmatised as a 'breeding ground of disunity'. His regime

reorganised the dual system, since he was convinced that the churches had traditionally been supporters of the white colonial ruling class. His government reversed decisively the long-established tradition, both in primary and secondary education, for the churches to build more schools and provide more new school places than the government. The most staggering results were achieved at the level of the secondary schools. Starting from a paltry total of three government secondary schools in 1957 (QRC, St. George's College and San Fernando Technical Institute), the PNM government raised the number to 21 by 1967, only two fewer than the denominational colleges. After 1967 the government consolidated its new ascendancy in secondary education with a range of new junior secondary and senior secondary schools, each costing far more than the churches could afford. By 1963 the reversal of the position of the government vis-a-vis the churches in relation to new schools was even more pronounced in the field of teacher training. Starting with one government training college in 1957, the government by 1963 had three such institutions, producing many more graduates than the denominational teacher training colleges. Directly and indirectly the government discouraged the building of denominational schools and colleges of all types.

Dr. Williams' government struggled to gain by legislation greater control over the education system. Since the authority of the government before 1950 was already ample in relation to denominational elementary schools (hereafter primary schools), the government's upgrading of its authority here was not as sensational as in the area of secondary schools. By the Education Act of 1966 denominational secondary schools were brought under the 'inspection' of government. The control of denominational school teachers was a flashpoint in the dual system. At the time the PNM came to office, the government had no control over the appointment of teachers in denominational secondary schools beyond checking the suitability of their academic qualifications. Teachers in denominational secondary schools were put by the Education Act on the same footing as teachers in denominational primary schools; that is, the government was the final authority in their appointment, transfer, promotion and dismissal. It was a major victory for government control and the integration of the teaching service.

The government also successfully asserted the right to control the admission policy of the "denominational secondary schools. The acquisition of new powers by the government was not accomplished without public protest more intense in 1965 than in any previous controversy over education. It was a struggle in which each side declared conflicting ideologies fundamentally incompatible. The leaders of the Roman Catholic church's case claimed that the family and not the government had the responsibility to provide education; the government asserted the right of the constitutionally elected government to control education in the national interest.

In bringing pressure on its denominational partners in the dual system the government practised the fine art of taking one step backwards and two steps forwards. For instance, two steps forwards were taken after the brash Maurice Committee report of 1959 provided the government with the basis for its proposals of June 1960. It looked then as if the denominational character of the church schools was about to be utterly eroded; then with the 1961 elections in mind, the government took one step backwards in the Concordat of December 1960. The churches were confirmed in the ownership of their schools; negotiations were to precede changes; then after independence and before the elections of 1966, another two steps forwards were taken in the furious year of 1965. A Draft Education Act and accompanying Education Code were put before the public, sparking off a great controversy. When the dust settled after the passing of the Education Act of 1966, there was still a dual system, but the relative power of the government and churches had shifted again in favour of the government. Then came the government's junior secondary and senior secondary schools of the 1970s. To the question whether a dual system still existed in 1986, a possible answer was that an incomplete national system and a constricted, overlapping dual system existed side by side.

Expansion Over Reorientation, 1956–62

The long regime of the PNM might be subdivided into three periods of education policy. From 1956 to 1962 one might conclude that expansion of the stock of schools, especially government schools, took place rather than the promised reorientation of the education system. In this phase came the much vaunted beginning of free secondary education and the deliberate spread of government secondary schools to rural areas, including Tobago. More university scholarships were provided in these six years than in the previous 25 years, and the traditional university scholarships lost their special significance as a means of getting a professional education at a university overseas. A high point of this period was the inauguration of a One Year Emergency Teachers College in Port of Spain, and the beginning of plans for a large government teachers' college at Mausica. The one major exception to the emphasis on expansion over reflection and reorientation was the report of the Maurice Committee, the first blueprint for change in education by local non-white experts. By the time of independence in 1962 the nation was grateful to the government for accepting the principle that every child who had the ability to benefit from secondary education should be given the opportunity of going to secondary school without paying fees. The overwhelming impression was that a highly educated prime minister presided over a government which cared about the education of the nation's children.

Reorientation Over Expansion, 1963–72

The next period in the history of education under the PNM government was between 1963 and 1972. It was characterised by plans to reorient the education system before further expansion was undertaken. It was the most difficult period for the government because planning meant delays and promises of a new future while existing problems piled up. The country had become independent in 1962, and it was time to rethink the education system. The major achievement of these years was the beginning of education planning, marked by the publication of the Fifteen Year Education Plan 1968-83. This plan defined the na1ture of the two-cycle secondary education system of junior secondary schools (age group 11-14 years) and senior secondary schools (age group 14-18 years). The senior secondary schools were to provide a broad range of academic and practical, agricultural, technical, vocational and commercial courses, with the option to specialise in one part of the curriculum. Technical schools were conceived as a separate provision. The publication of the Education Plan coincided with the peaking of the Black Power movement between 1968 and 1970. Increasing unemployment and unemployability of youths, plus disillusionment with independence at a time when the youths of the developed world were staging marches for idealistic causes, lay behind the Black Power movement. This movement spurred a further rethinking of the curriculum of secondary schools, some of which had participated in the upheaval; and it also led to more programmes for trades training.

Although planning rather than implementation was so conspicuous during the 1960s, it is worth noticing that a branch of the University of the West Indies was established in Trinidad and Tobago in 1961, first through the integration of ICTA into the Faculty of Agriculture, and then with a Faculty of Engineering (1962), followed by a College of Arts and Science. Rapid expansion of student intake and the start of the Faculty of Social Sciences gave Trinidad and Tobago the capacity to produce enough graduates to staff its expanding secondary schools. Since the government paid the fees of its nationals at the St Augustine campus, the nation could then boast that it offered free education for those who qualified from primary school to university.

Reorientation and Expansion, 1973–81

In the last period, 1973-81, the PNM government sought to carry forward reorientation and expansion simultaneously. Neither the one nor the other could wait much longer. The showpiece of the expansion was a spectacular array of new junior secondary and

senior secondary schools which set a new standard for school building and school equipment in the nation and the region. The dramatic increase in the price of oil from late 1973 provided the government of oil-rich Trinidad with unprecedentedly large revenue surpluses, and lack of money ceased to be a problem in education policy from 1974 to about 1981. School attendance was made more attractive by large government subsidies towards school uniforms, school bus services, school meals and the school medical service. The availability of large-scale capital funds and energy resources encouraged the government to expand heavy industry, which in turn increased the urgent need to produce skilled workers. The curriculum change which most mirrored this decision was the shift in government policy away from separate technical schools to the integration of specialised craft tramu1g in some of the senior secondary schools. This became probably the most fateful reorientation of the curriculum of schools in the late 1970s. When Dr. Williams died in March 1981 Trinidad and Tobago had the most impressive education structure in the Commonwealth Caribbean.

Thomas, C. Y., 1987. Reflections on the evolution of the University system in the English-speaking Caribbean. In *Caribbean Sociology: Introductory Reading.* Edited by Barrow, C. and R. Reddock. 2001. Kingston: Ian Randle Publishers, pp. 726–731.

The Colonial and Anti-colonial Heritage

Because the British colonial office played the leading administrative role in the establishment of university education in the English-speaking Caribbean, it is often overlooked that there were two fundamental social forces at work in bringing university education to the region. An appreciation of this duality is vital to an understanding of the present strengths and weaknesses of the system which has evolved. One set of these social forces was obviously the colonial authorities themselves. To these, university education in the region meant the creation of local elites, which, after appropriate British tutelage, would assume leading roles in the movement towards in- creasing local self-government in the colonies. This elitist conception is also to be seen as a means of keeping the 'people in check', as higher education was from the inception intended to be an instrument for containing the masses. Thus Kathleen Drayton (1981) quotes Sir James Irvine as saying that the University of the West Indies was established in 1948 in order 'to cream off the best and most articulate of West Indian' with the aim of training them to hold the more 'radical and irresponsible elements of the populace in check'.

These ideas coincided with British colonial notion of 'trusteeship' and the 'orderly' progression of the natives from crown colony rule to self-government, within an empire of nations overseered and overlored from Britain. There were many symbolic and real manifestations of this in the university which was established. Thus the institution of 'high tables', copied from ancient British universities, the wearing of academic gowns in the tropical heat when taking meals, and other such rituals compulsorily practised in the early days of the University of the West Indies are symbolic of this. The fact that the degrees, diplomas and certificates conferred to students were in effect issued by the University of London, or even that the first Vice-Chancellor was an Englishman, were important factors in the early formation and development of UWI.

The second set of forces, however, was the same nationalist forces that had historically struggled against colonial domination and which were in the 1950s, on the verge of organising the final push for independence. The strengths and weaknesses of this movement played a crucial role not only in the timing of the introduction of university education into the region, but in later years it was important in shaping the way the University sought to bring itself out of its original colonial bondage.

In the anti-colonial struggles in the Caribbean, education was a key weapon for both sides. The remarkable 1938 West Indies Royal Commission (1945) called for 'an end of the illog1cal and wasteful system which permits the education of a community predominantly engaged in agriculture to be based upon a literary cu~culum fitting pupils only for white collar careers. ..Curricula are on the whole ill-adapted to the needs of the large mass of the population and adhere far too closely to models which have become out of date in the British practice from which they have been blindly copied'. This radical critique followed on the outbreak of widespread violence and other forms of social struggle against British colonialism, and contrasted with the views cited in an Education Commission (1968) which was appointed a few years earlier in 1931. This Commission pointed out that the employers in the region 'rightly demand in addition to the training of will and character. ..the acquisition of a sound and practical knowledge of simple English', that is ability to understand and use the language for the ordinary purposes of industrial or commercial life, a working knowledge of the simple rules of arithmetic and mensuration, and a sharpening of general intelligence. For vocational training of a special kind they see no need. ..and for practically all other 'subjects' they have a profound mistrust as tending to superficiality and diverting attention to unessential, and sometimes unsuitable, objects'.

The local professionals and other colonially educated university personnel who articulated the nationalist demands of this period were very incisive in their criticism of the colonial educational system in the West Indies. In part their line of criticism was that the West Indies had been following an educational model which the very British from whom they had copied it had long ago discarded as the pressures of capitalist industrialization and internationalization proceeded. The out-of-date relics surviving in the colonies were useful to the colonial authorities for the ideological and cultural role they still managed to play in containing the colonial masses. The situation was so ridiculous that as Eric Williams (1973) pointed out: 'The British West Indies have yet to appreciate ...that it is possible to develop types of post-primary education of high academic value on non-academic lines with a certain bearing, more or less direct, on industry, commerce and agriculture. The secondary school. ..serves two main functions -it provides training for those who proceed to universities abroad. ..and it trains those less fortunate students who have to be content with government service at home'.

The critiques cited so far show how broad based were the attacks on the educational system in the region. The omission of a system of tertiary education at the time was seen as one further manifestation of its weaknesses. Those who therefore criticized the prevailing system in the region and called for its reform envisaged the movement towards a local university system as a necessary accompaniment to any national solution. The importance of this to the system which has evolved can only be underestimated at our own peril.

Generally, it would be true to say that the 'leaders' of the nationalist movement, saw education both as a means of stimulating the development of the region, while at the same time being necessary to ensure ever increasing mobility within the social system. As regards the latter consideration, it should be recalled that many of them had gained social, political and economic prominence in their society through the route of the professions, particularly medicine and law. Their concern over social mobility was therefore particularly forceful during this early period.

The Nationalist Phase: Elites vs Masses

Because generally it can be said that the leadership of the nationalist movements, particularly that section which has held political office, has never come under the sustained influence of workers and farmers interests in the region, or even working class ideology, its efforts to transform the inherited colonial university system have always been partial and limited. In the early phases the more militant sections of this leadership championed the severance of formal links with the University of London as the degree conferring institution; urged the support of more modern faculties (agriculture, engineering); supported the strengthening of research facilities (ISER at Cave Hill and St. Augustine); encouraged the substitution to local training for certain professions where British training dominated, and where relatively large numbers of people were involved (law); and gave stimulus to the process of indigenization of staff and teaching curricula in the university system.

Despite this we still have as an end product, in its general form and content a typical British post-colonial university system which is comparable to those found in ex-British Asia and Africa. The faculty profiles, the education and teaching styles, the student intake which is permitted, the curricula, even the dominant directions of resource flows in University research attest to this. The education therefore, is still fundamentally elitist, with the distinction that persons are now trained 'locally'. Thus, we find that there are 9,000 students at the UWI's three campuses and 1,651 at the University of Guyana. Because it is only a small fraction of the region's peoples who are university trained, all attempts to democratise, or transform, or radically reorient what we pro- duce are doomed ultimately to be limited by this fundamental structural constraint. More democracy, more relevance, more community orientation, closer integration of education and work, will continue to founder on the bed-rock of being addressed to a few and not to the masses. This constitutes a crippling limitation to what even

the most progressive and revolutionary of us in our approaches to university education can attain.

The peculiar British tradition in this situation, is that most other countries university system seek a far, far wider integration into the primary and secondary school population. In Latin America, North America, Asia and Europe, universities of 40 to SO thousand and more students, proliferate: The entire structures are geared to the assumption of dealing with a critical mass of this magnitude. In a British-type university system, the minimum critical mass is closer to one or two thousand. The excuse should not be accepted that the regional population is too small to support larger institutions, not while University training is being afforded to only a very small fraction of those already receiving secondary education!

I do not think that this observation of the need for the University to be seen as a mass institution will proceed very far without a radical change in the orientation of the political directorates in many of the territories of the region, and a far greater influence being exercised over social and cultural directions in the region by the mass of workers and farmers. This development is necessary before the University can be effectively integrated into the system of material production and consciousness forming both as the producers of workers and the producers of creative impulses among these to change the direction, nature and content of work and the organisation of society. But while even in some capitalist countries the call for such worker-farmer oriented institutions as 'engineering universities' or 'Land- based universities' as an adjunct to rural reorganisation has been made and implemented (USA), in the region one often encounters derision at the notion of workers and farmers colleges which are integrated into industry or the countryside as part of a national/regional system of tertiary education. The usual response has been to leave this to the typical regional agricultural colleges or technical institute which does not enjoy the resources (human and material), orientation prestige or support which is necessary if their impact 011, the system of underdevelopment and social deformation is to be felt.

The great democratizing idea of the nationalist leaders so far has been the creation of 'liberal arts of science colleges', to fill this void between secondary school and the British type university and which when first introduced appear as 'inferior' British type universities. Consequently, with staff and students enjoying lesser educational, remuneration, and research facilities than their university counterparts, an internal dynamic develops within these institutions to transform them into 'proper universities'. And, because their critical mass is so small, this tendency develops rapidly and so the projected 'College of Arts and Sciences' becomes part of the British-type university system. It is only perhaps in the College of the Virgin Islands with the U.S. cultural experience behind it as distinct from the British that these forces have been some-what subdued within the English-speaking Caribbean.

An additional feature of the colonial pattern of University education which is worth noting here is that its very elitist conception has allowed it to be from the very outset, fully integrated into the metropolitan system of education. Standards certainly as defined by the metropole and through them the larger universe of universities have been undoubtedly maintained. The colonial patrimony inherent in this system is not very readily perceived. Indeed. it was not until the Universities in Eastern Europe began to offer educational opportunities to peoples in the Third World and they approached this by creating special institution (Patrice Lumumba University) which they felt catered for the needs of the ex-colonial societies as they saw it, that this became apparent. Many graduates from these institutions who come from ex-British colonies find this system of Eastern Europe patronizing. They feel that the education they receive falls short of the 'genuine' university education given to the citizens of the countries they go to or in comparison with their compatriots who go to the UK or North America. This has created strong adverse propaganda among the educational elites of the region about the educational system in these countries. When to this is added the political difficulties attached to being trained in these countries because of accusations of training as terrorists, agents. etc. it now requires a very strong

sense of political independence or commitment to Marxist politics for one to consider attending these institutions. This no doubt accounts for the fact that presently it is effectively only 'party selectees' who are now trained in these countries. Needless to say this adverse reaction has strengthened the appeal of education in the West.

Because the universities remain structurally constrained to serving a small fraction of the region's peoples, two important considerations follow. One is that a large number of
people are trained outside the region, perhaps an even larger number than those who are trained within the region. This tendency is reinforced by the high costs of university education in a region where opportunities to work and study in institutions that are effectively residential are limited and where available scholarships and other forms of support are limited by budgetary and other constraints. At the University of Guyana while no tuition fees exist, the major cost item - maintenance and support of the student and family, is provided through 'leave from jobs' for persons who work in the public sector. However under increasing economic stringencies the real relief afforded by this system to the potential students population still remains quite marginal.

The second consideration is that the impact of the university on the community depends less on the cumulative impact of large numbers of persons trained at this level, and more than usual on the quality, calibre, etc. of the participants in this system. This means a number of things, one of which is that research should play an exceptionally leading role in the system. This is so not only because research, in the challenging circumstances of the region, is essential to develop meaningful teaching curricula but also because it is the only way to justify the elitist conception of the institutions. I am well aware that this can in itself reinforce elitist and ivory tower approaches but this is inherent in the system anyway, with or without a research emphasis. It should be borne in mind that it remains possible for many staff through consultancies and part-time work on an off-campus basis to convert their scarce skills into lucrative entrepreneurial avenues for their own self-enrichment, rather than that of the broad mass of the region. The injunction to serious research as a condition for career mobility is important if we are to contain this tendency to commercialize skills.

This second consideration also means that the university is a highly focused area of ideological struggle. It is within these institutions by and large that the development of an intellectual creative and moral tradition for contesting the overwhelming dominance of imperialist and post-colonial domination in the field of ideas, takes place. Such struggles tend to be located mainly among the students, and the teaching and research staff in the social sciences, humanities and the arts where the contestation with the hegemony of an anti-Caribbean people's ideology is confronted as part of the daily task, as it were. Development of this critical consciousness also extends inevitably into an awareness of the role that dominant local institutions and economic and social interests play in the perpetuation of the subjection of our peoples. As the arena of criticism therefore extends to these interests, conflicts between the university and the local power structure develop. Faculty are fired, departments are threatened with extinction, anti-university propaganda proliferates as the governments seek to extend their control over these institutions to make them less critical and more malleable to the present order of things. In this context a sharpened struggle develops for academic freedom and university autonomy. In this situation those academics who do not 'rock-the-boat' and are willing to serve or service all governments no matter what their nature or complexion, thrive. To my knowledge not one person in the region who has ever championed the present order of things, even colonial domination and the perpetuation of capitalist domination has even been cautioned on their views. Yet the list of academics who are critical of these and who have been sanctioned is long.

This contradiction highlights the limits to which pursuit of the transformation of the university can be taken in isolation of the transformation of the wider society. It is a real contradiction reflected in the living experiences of several persons in the region,

including those who have had to give up their lives through struggling to resolve it in favour of the peoples of our Americas.

The University as a Regional Institution

From the very inception, the two sets of social forces which I identified at the beginning of my presentation, wanted a 'regional' university system. To the colonial authorities this was an essential administrative convenience, as in no way could they contemplate the establishment of separate universities in a large number of small micro-states scattered across what is essentially a small geographically defined region. This rationale also played a role in their efforts at political tutelage, as they sought to urge the local political elites to create a federal system of West Indian government. To the nationalist forces the arguments of cost and size were also quite important. But among them were those who saw in a regional university an opportunity to develop a nationalist-regionalist outlook among the educated groups and so benefit as a people from our common struggles against slavery, indenture, colonialism and other ravages of capitalism in our region. As it occurred, the university, like our cricket team, became a working symbol of West Indian regionalism. This was sufficiently strong for the University of the West Indies to survive the collapse of the West Indies federation. It is one of history's ironies that the University received its charter as an independent regional institution at about the same time that the 'Nest Indies federation collapsed.
Despite its success in overcoming this tremendous regional trauma, other elements which constitute the strengths and weaknesses of the nationalist forces referred to earlier, however, were to eventually take their toll on the university and put in threat now, more than at any other time, the very idea of a regional institution.

In the Caribbean, as in many other parts of the post-colonial world, the struggles after political independence was won were directed at achieving 'real', as opposed to 'flag' independence. These manifested themselves in a variety of ways. In the regional university system they were canalised into calls for more democracy and greater decentralization and autonomy of functions and decision making. These were not conceived of as being anti-regionalist. Indeed it was felt to be the only secure 'basis for strengthening the regional idea through making it more responsive to the influence of the masses of West Indian peoples. Thus academics and students agitated for a greater say over the determination of the teaching curricula, the allocation of university resources, the directions of future developments and so on. On the various campuses there was also agitation for a far greater local influence and less bureaucratic direction from the centre. During this period, a number of criticisms of the university system was made by progressive forces many of these being in- distinguishable from those of a more conservative orientation who felt that the university had already been far too 'radicalized', as more and more student and faculty joined trade unions, pressure groups, human rights, and popular anti-government political organisations. Among the criticisms was the allegation that the university was far too isolated from the local communities where it operated, that the separation of school from work in its function was too sharply delineated, that it was inordinately slow in adapting and innovating as priorities, strategies and new developments occurred in the territories where it functioned. It was also pointed out that its 'regional' character sometimes made it too slow in responding to distinctly felt local needs. This criticism was made even though over time special programmes and courses had been mounted at the request of national governments to meet particular needs and financed by them.

The consequence of all this was to bring to the fore latent forces demanding their own national state universities. Ultimately these forces started from the premise that a national state run institution could be brought more easily under government control. It was also anticipated that the development of a 'counter-establishment' within the university would be difficult if the university was national and not regional. Generally, therefore, this format would more easily allow the university to be moulded into an extension of the government apparatus.

For various reasons key territories like Trinidad-Tobago and Jamaica, have supported the national route, while Guyana under the Jagan administration, in its frustration at the colonial character of UWI had already moved to establish its own university. This left Barbados and more so the OECS States in which the most minimal of university facilities had been constructed, out in the cold. A revitalisation of the notion of a regional university can only await the advance of political forces, not in the ascendancy in the region. As we have indicate, the University cannot but reflect the social order within which it functions, but even though this remains true, there exists functional scope for influencing that order in an autonomous and independent manner. It is this scope that I believe needs to be studied and grasped by those intellectuals in the region who side with, or wish to side themselves with, the forces in defence of the cultural sovereignty of the peoples of our Americas.