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PERFORMANCE IN SECOND-LEVEL EDUCATION IN IRELAND

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Research on second level education in Ireland in terms of intents provision and achievement is examined for five areas of performance general cognitive development non cognitive development vocational preparation allocation and custodialism Lack of specification of intents was found for all areas The main emphasis in provision in schools seems to be in the area of general cognitive development Recently provision for vocational education has expanded Using performance on public examinations as a criterion of achievement in the cognitive area, the performance of the system cannot be regarded as satisfactory Evidence relating to achievement in other areas is scant except as far as the allocation of educational benefits is concerned There is evidence of bias in achievement (as well as in provision) which is related to students gender and socioeconomic background

Second-level education expanded considerably, in some cases dramatically, in many developed countries during the 1960s and, to a lesser extent, during the 1970s (Grubb, 1985) Various reasons have been advanced for this, including the one that educational systems, like other social systems, take on a life of their own, which may not have a great deal to do with their original functions, and may continue to grow and expand, with little or no reference to other societal institutions (see Archer, 1982) Perhaps this has been happening in Ireland, though there are a number of other factors which contributed to growth in the system These include the demographic fact that the actual population of eligible children expanded during the 1970s, as well as the consequences of a number of administrative decisions, such as the provision of free education and free transport to schools (in 1967) and the raising of the school-leaving age from 14 to 15 (in 1972) More recently, unemployment, which is particularly high among youth, may have caused students to delay their decision to leave school and, to encourage this decision, students have been offered new vocationally-oriented programmes as well as personal financial support from the European Social Fund

Given the growth and extent of second-level education and official efforts to promote it, it is not unreasonable to ask how is the system performing? Often,

without a great deal of information, concern has been expressed in many countries about second-level education, in particular about standards in schools and real or supposed inadequacies of traditional curricula and vocational education In response to these concerns, we hear in Britain of more centralized control, of core curricula, and of reorganization of the examination system In the United States, the shop-talk is about minimum-competency testing which involves the use of an external examination in an attempt to ensure that students, when they graduate from high school, will have reached a minimum level of achievement The activities of the Assessment of Performance Unit (APU) in Britain and the National Assessment of Educational Progress (NAEP) in the United States can also be seen as aspects of a response to concern about how educational systems are performing

In Ireland, there has been less talk and certainly less activity to deal with problems that may be perceived to arise from a consideration of standards or the appropriateness of curricula However, these matters have not entirely escaped attention In 1980, the *White paper on educational development* (Ireland, 1980) noted that there were indications of public concern about basic achievement levels, especially in regard to literacy and numeracy, while some considerable time ago, the National Economic and Social Council recommended the annual collection of statistics on literacy among 10- and 15-year old students (National Economic and Social Council, 1976) In discussion of second-level student underachievement, the tendency has been to lay the blame at the door of the primary school However, while a number of surveys of pupil performance in primary schools in a variety of curricular areas have been carried out by the Department of Education and by other agencies, nothing on the same scale has been carried out at second level Yet there is evidence of concern about second-level curricula in, for example, the activities of the Curriculum and Examinations Board and of its successor, the National Council for Curriculum and Assessment, which in their documentation have raised the issues of reform in second-level schools and of assessment and certification procedures (Curriculum and Examinations Board, 1985, 1986a, 1986b) Also indicative of concern with the adequacy of second-level education is the growth since the 1970s of pre-employment and other alternative curricula, both in schools and in manpower agencies outside the school, a growth that is to be found in most western European countries Since many of these new curricula set out explicitly to prepare students, particularly low-achieving ones, for the labour market, it may reasonably be concluded that schools in their more traditional forms are being judged to be failing in this task, at least for some students

When, however, we come to look for hard evidence about the performance of the secondary-education system – whether it is performing well or poorly – we find little relating to the issue. This is true not just of Ireland, though Ireland fares less well than some other countries, where there is greater support for educational research and which have been regular participants in the projects of the International Association for the Evaluation of Educational Achievement (IEA), which have provided external criteria for norm-referenced or synchronic comparisons of achievement in a number of areas (mathematics, science, reading, and foreign languages). Such information, of course, is not the only source of information about the performance of a system, nor is it without problems in interpretation. Ireland has only recently become involved in such studies. In this paper, I shall consider the research evidence which addresses the issue of the performance of the post-primary educational system in Ireland. Some of the research, however, it should be pointed out, was carried out in the 1970s and may not accurately represent the situation today. Overall, the lack of research evidence on many issues will be evident, reflecting the low level of investment in research in this country.

AREAS AND DIMENSIONS OF PERFORMANCE

Areas of Performance

To assess the performance of a system, ideally we would like to have information about a large range of activities in which secondary schools engage. In this paper, these activities are categorized under five headings (see Holmes, 1985). In selecting these areas, I was not concerned with whether or not they reflected recognized or expressed intents, though it is probably true to say that in most of the areas selected, the educational system would profess to have some objectives or aims. The five areas are: general cognitive development, non-cognitive development (including socialization, aesthetic development, and physical development), vocational preparation, allocation of benefits, and custodialism. Obviously, the categorization is somewhat arbitrary and there may be overlap between categories.

Dimensions of Performance

Each area of performance will be considered in terms of three dimensions: intents, provision, and achievement of objectives.

Intents cover the kinds of things that second-level schools are expected to achieve and so come under the general category of aims or objectives. It does not necessarily follow that intents lead to *provision* in the way of programmes,

curricula, or time-allocation Further, even when there is provision, it does not follow that intents will be turned into *achievement*, that is, that students, for example, will learn to master certain skills in a course in mathematics which schools provide Thus, intent, provision, and achievement are by no means synonymous and, indeed, in some cases, there may be little relationship between the three (Holmes, 1985)

Looking at intents, objectives, or aims, it is not difficult to find a range and variety of objectives that have been posited for secondary education Though not all are mutually compatible, each would probably be supported by a substantial body of public opinion Thus, we find, in this country and elsewhere, that second-level schools are expected to do the following to provide an all-round education for the whole child, to provide students with vocational competence, to make them adaptable and flexible, to teach them to think, to make intelligent decisions, and to learn how to learn, to develop social competence and an appreciation of the arts in students, to help students become physically fit, to develop in students skills to use in leisure activities, to contribute to the moral and spiritual development of students, to develop students as caring, responsible, and participating members of society, and to help achieve equality of opportunity and ultimately social equality in an educated democratic society (see Curriculum and Examinations Board, 1986a, Holmes, 1985, Ó Ceallachain, 1988) These objectives represent a mixture of long and short-term goals, individual and institutional ones In the past, other institutions (such as the home, the church, and the local community) contributed to the attainment of several of these objectives but, under the pressures of industrialization and urbanization, are now less able to do so (Coleman, 1987, Dewey, 1916) In this situation, people look to schools to fill the void

Faced with this range of objectives, it is not surprising that an official comprehensive statement of the goals of Irish second-level education does not exist. Commenting on this situation, Mulcahy (1981) points out that, at least up to 1980, there had been an

> absence of any serious official attention to the identification and formulation of aims and derivative guiding principles for any form of post-primary education in the final quarter of the twentieth century (p 52)

The Curriculum and Examinations Board went some way in attempting to remedy this situation

The absence of clear objectives for the educational system, from which criteria for achievement might be derived, is of course, a major problem in assessing the performance of the system Even when official objectives have been stated, as they have from time to time for the Irish system of education

(e g , to improve equality of opportunity, to provide students with technical and other applied skills of a vocational kind, see Greaney & Kellaghan, 1984, Mulcahy, 1981), these have not been defined in sufficient detail to permit any precise assessment of the extent to which they are being achieved For example, should all students be provided with vocational skills? How much that is vocational should students learn at school?

In attempting to assess the achievements of an educational system, it has to be borne in mind that the objectives of schooling may not, indeed can hardly be, the same for all participating individuals except in the broadest sense (Madaus, Airasian, & Kellaghan, 1980) As a highly differentiated society demands a range of skills and competencies, it would not make sense to have all students leaving school with precisely the same set of skills and competencies It can be argued that differentiation is not required during the period of compulsory education and that neither differentiation nor specialization should take place until after that stage It can also be argued that differentiation of students in terms of societal manpower-needs at any educational level creates problems for another objective of education, that of equality of educational opportunity, if that concept is interpreted as meaning equality of achievement

Another problem in assessing the overall performance of a system is that different sectors of the system and indeed individual schools within it may have different goals and may behave quite differently in attempting to achieve those goals This means that measures of central tendency or even of distribution may not capture the whole picture of what is happening in a system If one relies on government statistics, for example, very often all one gets are summary figures or averages This can be of limited value to the policy-maker who may need more detailed information to guide ameliorative action

Another point to be borne in mind in assessing the performance of an educational system is that schools may have effects which were not intended and so were not formally identified as goals but which nonetheless should be taken into account in considering the performance of the system (Madaus et al, 1980) Hannan (1987), for example, has noted that while some school principals expressed high intellectual and academic achievements as the intended and valued objectives of their school, the schools in fact were characterized by a large number of low-achieving and early school-leaving students Since this outcome was predictable from the organizational working practices of the school, it had to be concluded that the school had 'operative' as distinct from intended goals, that is ones which could reasonably be inferred from actual working practice even if they were not acknowledged or intended

THE COGNITIVE DEVELOPMENT OF STUDENTS

Intents

Of all the functions that might be attributed to schools, few would deny that a major one relates to the development of a range of skills in students that can loosely be defined as cognitive The Curriculum and Examinations Board (1986a) in its document *In our schools* lists as the first aim of education 'the development of the basic skills of literacy, numeracy and oral communication' (p 10) While it can be, and has been, argued that the major goals of education should be something else (e g , improving affective characteristics, motivation, and self-image), much of the recent criticism of schools, in several countries, from outside the schools at any rate, has not been that schools do not foster emotional or social development but that far too many young people on leaving school are deficient in reading, writing, and computational skills and are ill-prepared for the world of work Thus, from a political point of view at least, cognitive development must be regarded as an important function of the secondary school

Provision

Provision in schools also reflects the importance of cognitive development as a goal of second-level education Much school time is spent in the formal study of languages, mathematics, sciences, and social studies Some limited research evidence from the 1970s is available on this topic In a survey of students in second-level schools carried out by Raven (1977), students felt that cognitive objectives, such as making sure you are able to read and study on your own and helping you to do as well as possible in external examinations, were important and, that enough was being done in schools to achieve them

Achievement

What does second-level education achieve in the area of cognitive development? Obviously, no definitive answer is possible since we do not have standards against which its performance might be assessed What can be done, however, and this is also all that can be done in the other areas of school performance which we will look at, is to consider some descriptive information on the output of the system The amount of such information that is available is quite limited and, of course, all it reveals are things that are happening in the system Whether those things can be regarded as indicating that the performance of the system is adequate or satisfactory requires a further judgment

It would be useful to have information on the output of schools in terms of the literacy and numeracy skills that students would need to function in everyday life However, second-level education in Ireland has traditionally focused on the preparation of students for public examinations Perhaps this situation has changed somewhat with growth in participation rates, but schools still seem to invest a lot of their time in pursuit of success in examinations Taking the system on its own terms then, we may ask how well does the system perform this function

In Raven's (1977) study, teachers thought that the educational system was successful in helping students to do as well as possible in external examinations Data on examination results provide another perspective on student performance Such data were available in reports of the Department of Education up to 1983, but unfortunately are no longer provided I have selected statistics on examination performance in two basic subjects in two examinations which are held around the end of the period of compulsory education (the Group and Intermediate Certificates) The two subjects are English and Mathematics, which I have chosen because they are the subjects taken by the largest numbers of students and because it can be argued that they represent in some way the important areas of literacy and numeracy

In the Group Certificate Examination in 1983, more than four out of five students who took examinations in English and Mathematics passed (83% for English and 85% for Mathematics) However, not all students who sat for the Group Certificate Examination took these subjects When these students are taken into account, we find that about 30% of those who took the Group Certificate did not get a pass in English and a similar percentage (31%) did not secure a pass in Mathematics (Ireland Department of Education, 1985) If it is an objective of second-level schools to prepare students to pass examinations, then it seems reasonable to say that the performance of the system cannot be regarded as totally satisfactory in the case of these two subjects

At the Intermediate Certificate level, practically all candidates who sit for the examination take examinations in English and Mathematics and here the pass rates in 1983 were better than for the Group Certificate Pass rate for all candidates in both subjects was about 90% (92% for English, 88% for Mathematics) For those who actually took examinations in the subject, the pass rates were 93% for English and 92% for Mathematics (Ireland Department of Education, 1985)

If we look back to the 1970s we find pass rates which varied a good deal from year to year, but were actually lower than these figures This seems strange since smaller percentages of cohorts of students sat for public examinations at

that time Does this mean that the educational system is becoming more productive and efficient since absolutely larger numbers of students are passing examinations? Or, does it mean that standards for passing have dropped?

When considering the numbers of students that failed to obtain a pass in a certificate examination in English and Mathematics and so, in an academic sense, might be regarded as 'failures' in the system, we also have to bear in mind that there are some students who do not attempt the Group or Intermediate Certificate Examinations at all and who actually leave school without any certification of their achievements The percentage of a cohort which fell into this category in the early 1980s was something between 7 and 10 (Breen, 1984, Hannan, 1986) Given that these students move out of school to almost inevitable unemployment, they can reasonably be added to the 'failures' of the system

The most recent and comprehensive information on achievements of students in the areas of mathematics and science is to be found in the findings of an international study carried out in Ireland by the Educational Research Centre as part of the International Assessment of Educational Progress (IAEP) (Lapointe, Mead, & Phillips, 1988) This study examined the achievements of 13-year old students At the time of the study, 40% were in their second year in second-level schools, 54% were in their first year, and 6% were still attending primary school The overall performance of Irish students on the mathematics test was better than that of their peers in the United States, about the same as that of students in the United Kingdom and Spain, but not as good as that of students in the Republic of Korea or in most of the Canadian provinces In science, Irish students lagged behind their peers in most other countries except the United States While most had mastered everyday scientific facts, less than 40% could analyze experiments

Since I am considering the performance of second-level education rather than the performance of the total educational system, a brief foot-note to these statistics is in order As one might expect, there is very considerable variance in the achievements of pupils when they leave primary school and enter second-level schools and the performance of pupils at the lower end of the distribution in basic curricular areas (language and mathematics) is such as to suggest that these pupils will experience difficulties in second-level education (Kellaghan, 1985) For example, many of the objectives in mathematics laid down for the end of the primary-school curriculum, again in the 1970s, were not being attained by considerable numbers of students by the time they completed primary schooling This was particularly so in the area of problem-solving Such students started second-level education with a distinct disadvantage What is more, when students begin post-primary schooling without having mastered the

objectives of the primary-school curriculum, it is unlikely that they will attain mastery of these objectives during the first year in post-primary school (Close, Kellaghan, Madaus, & Airasian, 1978) This is probably because the skills related to these objectives (for example, basic computational skills) are not normally taught in post-primary schools While the fault for the non-acquisition of such skills in the first place cannot be laid at the door of second-level schools, it would at the same time seem reasonable to expect that in the design of curricula for such schools greater cognizance would be taken of the characteristics of students at entry

THE DEVELOPMENT OF STUDENTS NON COGNITIVE CHARACTERISTICS

Intents

If the official purpose of the Intermediate Certificate course is 'to provide a well-balanced general education' (Ireland Department of Education, 1987, p 12) and of the Leaving Certificate course 'to prepare pupils for immediate entry into open society or for proceeding to further education' (p 15), then it is reasonable to assume that more is intended and provided for in second-level education than the cognitive development of students Perhaps we would be wrong to make this assumption, it may be that the traditional grammar-school type of education which has been (and to a considerable extent continues to be) a feature of Irish second-level education takes it for granted that education is concerned essentially with the development of the mind or the cultivation of the intellect, and that from that education other desirable benefits can be expected to flow (Mulcahy, 1981) Besides, there are problems in nomenclature and definition, not to mention measurement, in the non-cognitive areas of human development, and the means that are adopted to promote them in schools are likely to be less formal, less structured, and less time-framed than the programmes designed to promote cognitive development This makes it difficult to identify intents or the programmes that are designed to implement them One thing that can be said is that there is little doubt that many parents, teachers, and students in the Irish educational system think that the school *should have* a function in promoting a wide range of areas of development that do not fall under the umbrella of the traditional cognitive objectives of schools In the survey of teachers and students in second-level schools referred to above, teachers included as important objectives of second-level education such things as teaching students about what is right and wrong, helping them develop their character and personality, and encouraging them to be independent and to be able to stand on their own feet (Raven, 1977)

Provision

Students in Raven's (1977) survey also saw a range of objectives as being important (not always the same as those perceived by teachers, though there was some agreement), but they felt that not enough was being done in schools to achieve them In particular, they indicated that they would like education to be made more directly relevant to their lives by including such topics as sex, marriage, and home-making (Raven, 1977) These topics obviously relate to what Mulcahy has defined as the 'practical' demands of living, an area which he too judges is not adequately catered for in schools Students also indicated that they would like their educational experiences to be more active, more concerned with the whole person, and more directed towards the development of self-confidence, initiative, and the ability to clarify values

The lack of provision in second-level schools for such areas as drama and music (which, for example, is not a subject in the Group Certificate) was adverted to in a report of the Arts Council's Working Party on the Arts in Education (Benson, 1979) The report also pointed to the relatively low take-up by students of arts subjects when they are offered, though the kind of material covered in traditional syllabi on music might not be what most people would have in mind when they talk about education in music for all students More recent figures indicate that only 25% of junior-cycle students study Music and Musicianship and only 47% study Art on the Intermediate Certificate course while only 18% of senior-cycle students study Art and just over 3% study Music and Musicianship on the Leaving Certificate course (Ireland Department of Education, 1988) These data are reflected in the views expressed in a national survey of public opinion on Irish education, in which just over half (52%) the respondents thought that schools placed too little emphasis on helping children to value music, art, and literature (Madaus, Fontes, Kellaghan, & Airasian, 1979)

Achievement

Relatively little information is available about the achievements of the post-primary system in non-cognitive areas What is available indicates that schools are not perceived as being as successful in these areas as in cognitive areas Teachers in Raven's (1977) study did not, on the whole, feel that non-cognitive objectives were being achieved For example, only 40% thought that education was being successful in achieving the objective of encouraging students to be independent

Some information is also available on students' civic knowledge, values, and attitudes in Irish second-level schools This information comes from an IEA

study which was carried out in ten countries, including Ireland, in 1971 with students aged 14 to 15 and students in their final year in school (Oppenheim & Torney, 1974, Raven & Litton, 1976) Students in schools today might well provide a different picture In the 1970s, Irish students' perceptions of the role of 'the good citizen' involved first and foremost obeying the law (84% said this, which was similar in other countries), then paying taxes (70% said this, which was high by international standards), being loyal to one's family (71% said this, which was above the international average of 62%), voting in elections (68%), and working hard (68% of Irish students said this which again was high compared to other countries, in Germany, it was 15%) These things are all fairly positive On the negative side, students did not think that one should try to influence what happens in government One in three thought that regular elections were unnecessary and one in five that it was wrong to criticize the government. One in four believed that people who disagree with the government should not be free to meet and protest, one in three thought that women should not have the same rights as men and one in ten thought that hotels are right in refusing to admit people of certain races and nationalities

VOCATIONAL DEVELOPMENT

Intents

It has been stated that the central purpose of the secondary school is to prepare young people for their future life either in tertiary schooling or in employment Such activities, it is argued, lie at the heart of secondary schooling and it is these that make secondary schooling legitimate in the public eye (Holmes, 1985) Certainly, if one sees schooling as being a preparation for the demands of living, preparation – in some form – for work, which is a large and important part of life for most people, would seem to loom large among the functions of schooling (Mulcahy, 1981)

There is a sense in which all compulsory education may be regarded as to some extent vocational since many of the skills and much of the knowledge that is taught in schools have vocational relevance, many jobs require at least the ability to read, write, and calculate However, as the term is normally used, vocational education refers to a more restricted kind of education 'that is oriented towards employment Unlike general education it has a single point of reference work' (Organisation for Economic Co-operation and Development, 1985, p 92)

In the last ten years or so, in a majority of western European countries, the expansion of upper-secondary education has increased the weight of the

technical/vocational sector within the total provision (Organisation for Economic Co-operation and Development, 1985) Two not unrelated explanations have been offered for this growth an increase in the number of students staying at school after the compulsory period of education and a high rate of youth unemployment Both these conditions apply in Ireland

Even prior to this situation, government policy had promoted the role of education in meeting the economic needs of the country, stressing the need to provide students with technical and other applied skills of a vocational kind In accord with this policy, a series of educational reforms was implemented which it was hoped would result in a widening of the range of subjects available in second-level schools and an increased emphasis on technical, practical, and vocationally-oriented subjects

Provision

Have these situations been matched by an increase in vocationalism in second-level education? In general, the answer is a qualified yes (Lewis & Kellaghan, 1987) While vocational schools between the early 1960s and 1980s lost their share of junior-cycle students (from 29% to 24%), a trend which obviously goes against increasing vocationalism, their share of senior-cycle students grew very considerably (from 10% to 23%) These figures are not unambiguous in terms of vocationalism, however, since vocational schools can now offer basically the same curricula and examination opportunities as secondary schools For example, some of the increased numbers of students in senior cycle in vocational schools are no doubt enrolled in Leaving Certificate courses, though one might expect that their choice of subjects in this and other examinations would include more vocationally-oriented subjects than would be the case for students in secondary schools

Perhaps a better index of vocationalism in schools is the numbers of students who choose to study and take examinations in vocationally-oriented subjects When we look at these figures, we find that there was an increase in participation between the late 1960s and early 1980s in most such subjects which exceeded the increase in the total number of students sitting for the examination For example, while the increase between 1969 and 1983 in the percentage of students who took the Group Certificate Examination was 38, the increases in the percentages taking nine vocationally oriented subjects were all greater – ranging from 221 for Shorthand to 59 for Domestic Science

Despite these increases, the most obvious expression of vocationalism in second-level education is to be found in pre-employment courses which were introduced at senior cycle to schools in 1977 with the aim of easing the transition

of young people from school to work by bridging the gap between the values and experiences which are normally part of traditional education and those which exist in the adult world of work These courses, the most popular of which are Commerce, Construction, and Engineering, for the most part serve students who in the past would have left school by the end of junior cycle and who, if they had done so, would most likely now be unemployed (Ireland Department of Education, 1986) Participants tend to be low-achieving youth from low socioeconomic backgrounds and they are being prepared for skilled, semi-skilled, and unskilled work

Achievement

We have little evidence relating to the usefulness of vocational-education programmes as a preparation for work It would seem that participation in pre-employment courses does not confer any advantage on participants in the labour market (Breen, 1984) At one time, the Group Certificate was valued by employers in selecting young people for jobs and apprenticeships This is probably no longer so For one thing, the number of apprenticeships has decreased For another, the value of such qualifications as the Group Certificate decreases as more and more students stay in school for longer periods and the number of students who have qualifications that are perceived to be at a higher level increases Thus, the allocation of apprenticeships, as well as places on non-apprenticeship training courses in Ireland, has been shifting increasingly towards students with higher qualifications For example, over the years 1981 to 1983, the percentage of students in a category made up largely of young people with the Leaving Certificate or a higher qualification admitted to apprenticeships increased by half while the percentage with a junior-cycle qualification fell (Breen, 1984, Table 8 4) Length of stay in education seems to be a more important criterion for selection than the actual content of an individual's educational experiences

THE ALLOCATION OF EDUCATIONAL BENEFITS

Intents

The educational system cannot confer the same benefits on all students Students receive different amounts and types of education and different qualifications, all of which have implications for their post-school careers All educational systems have to decide, explicitly or implicitly, the basis on which they will allocate their limited resources and benefits

The official view in Ireland is that the distribution of educational benefits should take cognizance of the principle of equality of opportunity, a principle that has been enunciated, though never clearly defined, in several policy statements over the years (see Greaney & Kellaghan, 1984) The statements have made specific reference to inequalities in the system relating to socioeconomic status and gender and have expressed the objective of removing from the system gender stereotyping and discrimination of any kind based on students' gender or socioeconomic background

Provision

Students from low socioeconomic backgrounds leave school at an earlier age than students from higher socioeconomic backgrounds (Greaney & Kellaghan, 1984) A number of steps have been taken to rectify this situation These have included the raising of the statutory school-leaving age and, beyond the period of compulsory education, the provision of special programmes and facilities

Not all students have access to all available subjects in second-level schools Among boys, for example, those from higher socioeconomic backgrounds are likely to attend schools with relatively high levels of provision in the sciences, commerce, and language subjects, while those from lower socioeconomic backgrounds are likely to attend schools with relatively high levels of provision in technical subjects (Breen, 1986)

There is a gap favouring females between female and male participation in second-level education beyond the age of compulsory attendance The gap widens as students grow older There are also gender differences in access to school subjects Almost no girls' schools teach technical subjects such as Mechanical Drawing, Metalwork, Technical Drawing, or Building Construction Further, coeducational schools that do provide the subjects may not offer them to girls (Hannan et al, 1983) Thus provision, in terms of both socioeconomic background and gender, is biased in the system

Achievement

Despite efforts to improve the achievements of students from low socioeconomic backgrounds, socioeconomic status has been found to predict achievement as assessed by teachers and standardized tests, performance on public examinations, and occupational status on leaving school (Breen, 1986 Greaney & Kellaghan, 1984) As one would expect, gender differences in provision and allocation are reflected in gender differences in participation in public examinations Even when allowance is made for provision and allocation practices in schools, girls are still less likely to choose a range of technical,

scientific, and mathematical subjects while boys are less likely to choose home economics subjects (Hannan et al, 1983) However, female participation and achievement has improved in recent years in mathematics and the sciences (Kellaghan & Hegarty, 1984)

In the IAEP study of achievement, the overall performance of Irish girls in mathematics was somewhat below, but not significantly different from, the performance of Irish boys Although detailed analyses of the performances of boys and girls on the mathematics tests have not been carried out, preliminary analyses indicate that girls performed less well than boys in the areas of Measurement (involving concepts and applications of measurement to length, area, and volume as well as understanding and using scales) and Geometry (covering properties of and relationships among geometric figures such as circles, squares, and angles)

The overall performance of Irish boys in the IAEP science test was superior to that of Irish girls The differences in performance between girls and boys were greatest in the areas of physics and chemistry and less marked for questions about the nature of science and about life sciences

THE CUSTODIAL FUNCTION OF SECOND LEVEL EDUCATION

When we consider the custodial function of second-level education, we are asking to what extent students are in school to learn things that are going to be necessary either in terms of their educational development or future lives or to what extent they are there because society has decided that for a variety of other reasons the school is the most appropriate institution for young people?

It is difficult to sustain the view that students are always in school to engage in necessary learning For one thing, even among developed countries, there is variation in retention rates in schools For example, Ireland retains more 17-year old students in full-time education than do Germany, Switzerland, or the United Kingdom (*Organisation for Economic Co-operation and Development*, 1989) The option of having some older students spend part of their time at school and part in industry, as is common in Germany and Switzerland, might provide students with more meaningful learning experiences than they get in full-time education Secondly, as we have seen, the levels of educational qualifications required for entry to post-school destinations have been continually increasing However, it is difficult to find evidence that any additional knowledge or skills over what were needed in the past are required for jobs, training, or further education today For example why should students require a Leaving Certificate

for an apprenticeship that some years ago only required a Group or Intermediate Certificate?

On the other hand, schools have, over a long period of time, played a major role in the prolongation of dependence, protection, segregation, and delayed responsibility among young people The need to do this has varied depending on social and economic conditions It has been argued that the custodial function of the school becomes most evident during changes in the youth labour market, especially during periods of high unemployment (Mirel & Angus, 1986) In this situation, staying in school can be preferable to walking the streets and economic factors rather than the curriculum on offer may determine how long young people stay The type of programme which is usually offered to such students tends to be in the 'life-adjustment' mould which, it has been argued, was introduced at various periods in history (for example, during the Depression in the United States) to carry out a custodial function

We cannot say to what extent the increase in retention of students in the post-compulsory period in schools serves a custodial function However, it is clear that out of school, such students would add to the already high numbers of youth who are unemployed Further, keeping them at school may seem a logical and effective way of integrating young people – many of whom are at the bottom of the socioeconomic and occupational ladders – into the mainstream (Grubb, 1978)

Whatever the intent, the Irish second level system has certainly been successful in retaining increasing numbers of students Between 1974-75 and 1985-86, the percentage of 15-year-olds attending school increased from 82 to 91, the percentage of 16-year-olds from 67 to 82, and the percentage of 17-year olds from 45 to 65 (Ireland Department of Education, 1977, 1988) Further, this increase has been accompanied by a growth of 'life-adjustment' type programmes as an alternative to traditional grammar-school type curricula The number of students involved in these alternative programmes is considerable For example, about 16,000 students participated in Vocational Preparation and Training Programmes in 1984-85 (Ireland Department of Education, 1986), which is equivalent to about a third of the number of students who sat for the Leaving Certificate examination in 1984

CONCLUSION

This sketchy overview of the performance of one system of second-level education has been limited by the fact that relatively little research information is available on the various components of performance that can be identified in

the system Perhaps the most critical deficiency is in the area of intents, it is difficult to evaluate performance in the absence of information about what the system is expected to achieve However, given the variety of expectations that different publics hold for education, it is unlikely that agreement will ever be reached on a range of objectives for schooling, much less an order of priority for those objectives

The main emphasis of schools in terms of intent and provision is in the cognitive area Recently, provision for vocational education has increased There are deficiencies in the allocative functions of the system in terms of provision and achievement relating to gender and the socioeconomic background of students The evidence relating to the non-cognitive and vocational areas is too limited to allow any firm conclusion about the performance of the system

From the point of view of understanding the system and how it works, it would be useful to have more information than is now available about the topics which I covered However, there are other obvious factors which affect the performance of an educational system, such as the entry characteristics of students and the social contexts in which schools function, which I have not considered at all Neither have I considered the relationships between intents, provision, and performance, or between different sectors of the system, also matters of importance in trying to understand the system and in attempting to devise ameliorative action where that is considered necessary Although the evidence which I have cited is extremely limited, and in some cases may be dated, the framework used to examine the performance of second-level education may be useful in the future in evaluating the performance of educational systems facing a variety of complex demands and expectations

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