

“A” Level Sociology

Teaching Notes for Students

Education and Training

Differential Educational Achievement (1).

A. Introduction.

1. One of the primary purposes of the education system in our society is to differentiate children, as part of the social process of their passage into wider society.

- Such differentiation - whilst clearly of significance - might not be particularly important (for the purpose at hand), if it can be shown that differences in educational attainment are simply the result of natural or innate differences between individuals:
- That is, that children have different levels of ability or intelligence and the education system simply reflects these differences in terms of measured attainment levels (the passing of exams, for example).

2. If this is the case, sociological explanations for differential educational achievement are simply redundant. If differences are more-or-less entirely due to natural differences then, by definition, there is nothing for the sociologist to explain.

- However, if we find this "natural" or "innate" form of explanation to be lacking in validity, it follows that we need to provide a sociological explanation of differential achievement, since it is evident that such differences must be based upon social factors - either within the education system or wider society.

B. Patterns of Differential Achievement

1. When we look at the differentiation process, it becomes clear that latent (or hidden) patterns of differential educational achievement are revealed. These patterns involve differences in educational achievement between:

- Social classes,
- Males and females,
- Ethnic groups.
- To understand the educational process in Britain we must find explanations for differential achievement across these basic categories. We will look, firstly, at the non-sociological explanation for differential educational achievement noted earlier (the idea that intelligence is based primarily upon innate genetic characteristics), before turning towards an analysis of explicitly-sociological explanations that focus upon two main areas:
- Factors outside the education system that may contribute towards patterns of differential achievement.
- Factors inside the education system - most importantly the process of interaction within the school - that may contribute to differential achievement.

C. Basic Patterns.

Before we look at various explanations of differential educational achievement, it might be useful to look briefly at the broad patterns of achievement that are discernible in our education system:

1. Social Class.

- In general terms, middle and upper class children (as defined by their father's occupation) tend to achieve more than their working class counterparts, both in terms of the length of their education and the level of qualifications they achieve. Halsey, Heath and Ridge ("Origins and Destinations", 1980), for example, found that upper middle class children in relation to working class children were:
 - 4 times more likely to stay at school until 16 (the minimum leaving age)
 - 8 times more likely to stay at school until 17
 - 10 times more likely to stay at school until 18
 - 11 times more likely to go to University.

2. Gender

- Differences in educational achievement in gender terms are more difficult to pinpoint. There is little clear evidence to show that females underachieve intellectually at school (in terms of GCSE, for example, the levels of achievement between males and females are roughly equal). However, clear gender differences emerge in relation to:
 - a. Higher education:
Approximately twice as many men achieve first degrees.
 - b. Social class:
Middle class women are far more successful than working class women
 - c. Subjects taken:
In 1983 the percentage of A-Level passes in selected subjects was:

Selected Subjects:	Males	Females
Domestic subjects	01	99
Sociology	25	75
English	29	71
Maths	70	30
Physics	79	21
Computer science	80	20
Technical Drawing	97	03

3. Ethnicity:

- The performance of different ethnic groups in Britain varies greatly, both in terms of a "white / black" dichotomy and the performance of specific cultural groupings.
- Whites, on average, achieve more in the educational system, whilst children from Asian backgrounds match white British children in all subjects and at all levels (with the notable exception of English language). Indeed, if we take this factor into account, it is evident that, on average, children of Asian descent achieve more than their white counterparts.
- West Indian children, on the other hand, appear to significantly under-achieve in the education system. As Bilton ("Introductory Sociology", 1986) notes:

“While ethnic origin is clearly linked to educational under-achievement for pupils of West Indian origin, it is not so linked for children of Asian origin as a whole. The 'ethnic minorities of Britain', sometimes considered as an homogeneous category, are in fact composed of distinct groupings, and each of these groups may have a unique relationship to the educational system.”.

- Bilton concludes that:

"The myth of meritocracy - the view that schools stimulate individual talents and, without regard for ascribed characteristics such as social or gender, reshuffle children according to ability - is one of the most cherished myths of our time. The overwhelming evidence is that the British education system, like that of many other countries, favours those who are already privileged, and puts further obstacles in the path of those who are disadvantaged.”.

D. Explaining the Differences.

1. Differences in levels of educational attainment in our society can be explained in terms of three basic categories:

- Innate differences in intelligence.
- Social background differences:
 - Family organisation
 - Cultural organisation
 - Socialisation
 - Poverty.
- Educational differences:
 - Hidden curriculum
 - Teacher / peer group labelling
 - Self-fulfilling prophecies

2. We can look at each of these broad categories in turn, to discover the extent to which such factors can be used to construct an explanation for patterns of differential educational achievement across class, gender and ethnic groupings in our society.

Innate Intelligence and IQ - A Non-Sociological Explanation?

1. One way of explaining differences in educational achievement is through the concept of "inherited" (or "innate") intelligence. We could attempt to explain the above differences in terms of the idea that:

- Middle-class children are "naturally" more intelligent than working-class children.
- White Europeans and Asians are "naturally" more intelligent than West Indians.
- Males are "naturally" more intelligent than females.

2. Since intelligence is seen as inherited (or, at least the majority of it - there are differences of opinion within psychology as to the precise relationship between inheritance and environment), we can explain differences in educational achievement by arguing that these differences reflect "natural" aptitudes and abilities. Upper class children, for example, achieve most because they are the most intelligent...

What Is Intelligence?

1. One of the first problems we face when trying to measure the concept of "intelligence" is that of being able to define it precisely enough to use it as the basis for the measurement of people with theoretically different levels of intelligence.

- The "problem of definition" is a fundamental one, given the fact that "Intelligence Tests" are in frequent use in our society:
- Although the change to a Comprehensive system has meant the decline of the "11-plus" intelligence test as the basis of selection for either a Grammar or Secondary Modern school, various types of IQ test form the basis for many companies' selection policies in the world of work. Your performance in such tests can have a marked effect upon the likelihood of your being offered a job in such companies.

2. Thus, the definition of intelligence is a methodological problem in the social sciences generally, since in order to measure something:

- You have to know what it is you are measuring, since if you do not you cannot be certain that the test you devise to measure intelligence is actually measuring what it is designed to measure.
- You have to ensure that a common definition of intelligence is used by all social scientists, since if it is not, it is impossible to compare the accuracy / validity of such tests.

3. Giddens ("Sociology", 1989) argues (with heavy irony) that one definition of intelligence is that it is "what IQ tests measure". Intelligence tests measure something, but what that "something" is seems to be open to interpretation. This is significant since in order to create a test you have to hold a definition of intelligence. The power to define intelligence is a significant (subjective) factor in the testing process.

4. The American psychologist Arthur Jensen ("Educational Differences", 1973) argues that intelligence can be measured in terms of:

"abstract reasoning ability...a selection of just one portion of the total spectrum of human mental abilities."

- Thus, intelligence represents the ability to discover such things as the:
Rules,
Patterns,
Reasons and
Logical principles

that underlie events. In effect, it involves the ability to understand the underlying principles of organisation upon which "everyday experiences" are built. We can illustrate this principle by looking at the way in which we learn a language:

- We can understand the rules and logical principles that underlie the alphabet:
How letters and sounds (phonemes) relate to one another logically.
- We can understand the rules whereby words are grouped to form culturally-meaningful sounds (the grammatical principles of a language, for example).
- We can understand the symbolic significance of those sounds.
A word such as "dog", for example, is symbolic of a certain type of animal. It is symbolic because there is no real relationship between the word itself and the thing it describes. In French, for example, the sound "chien" expresses the same meaning, even though the word is spelt differently and sounds different.

5. Jensen's definition is not the only or even most widely-accepted definition of intelligence.

Testing Intelligence?

1. While the definition of intelligence is clearly a methodological problem, further problems arise over the way in which "intelligence" can be measured. Most standard IQ testing (such as the tests devised by Eysenck ("Know Your Own IQ", 1964)) derives from the work of writers such as Binet, Spearman and so forth and such tests have been criticised by sociologists on the basis of their reliability and validity. Writers such as Vernon ("Intelligence and Cultural Environment", 1969) and Kamin ("Eysenck versus Kamin", 1981) have criticised IQ tests on the basis that they are both culturally and sub-culturally specific.

a. Culturally specific tests.

- This idea relates to the fact that the cultural setting within which IQ tests are created involves assumptions familiar to that culture (assumptions relating to such things as concepts of time, individualism, co-operation, etc.). These assumptions may not hold true for other cultures and, therefore, such tests cannot, by definition, provide an objective comparison of "intelligence" across different cultures.
- For example, if we use Eysenck's tests as a form of illustration, each test involves 40 questions with a time limit of 30 minutes for their completion:

Cultures that do not share Eysenck's (westernised) concept of time (such as the Yakima Indians in America) tend to perform badly in these tests - not because their members are "unintelligent", but simply because their concept of time is different (they place very little value upon speed).

b. Sub-Culturally specific tests.

- Within the same culture one might expect such tests to provide an objective measurement of intelligence. However, just as different cultural groupings hold different assumptions about the world, so too do different sub-cultural groupings.
- Mainly, these assumptions are likely to relate to the use of language and the sub-cultural meaning of that (common) language.

Vernon, for example, argues that all IQ tests reflect sub-cultural values, ideas, beliefs and attitudes (those of middle-class professionals who devise such tests and therefore define what is meant by "intelligence"). He further argues that since such tests are, by definition, culturally-biased, we have no way of knowing the extent to which they reflect "innate intelligence" differences:

Since we cannot know the extent to which the tester has biased the test (albeit unconsciously), we cannot know what, if anything, such tests are measuring.

- For example, consider the following:
 - a. Does the concept of "dinner" mean the same thing to all classes in Britain?
 - b. Does the word "bad" mean the same thing to people of different age-groups in Britain?
 - These words do not necessarily mean the same thing ("dinner" may mean an evening meal to a middle-class person, whilst it may mean a mid-day meal to a working-class person. The word "bad" may similarly mean something different to a young person ("good") than to an older person ("not good")). This is significant in the context of IQ testing.
2. To ensure that the variable "intelligence" is being tested, the setter of the test must control all other variables that might affect the test results.
 3. Language is a symbolic system involving a variety of assumptions and ideas about the world. To uncritically assume that a common language involves common meaning is not a valid assumption to make.
- This is important since IQ tests are designed to measure intelligence and this should not involve judgements about the way people use / create language. Once judgements intrude the test becomes invalid as a measure of intelligence because of its cultural bias.

Examples of Culture-Specific Bias.

1. The following are taken from Hans Eysenck ("Know Your Own IQ", 1964).
 - Underline the Odd-man-out.
HOUSE IGLOO BUNGALOW OFFICE HUT
2. This type of question involves a number of assumptions made by the setter which may not necessarily be shared by the respondent:
 - It assumes that these words are culturally-meaningful:
For example, is the word "bungalow" understood across different cultures?
 - It assumes that each word has the same meaning within a particular culture:
For example, the word "hut" may have different connotations within the same society (it may be made from mud, wood or whatever).
 - It assumes that there is only one possible distinction - and therefore only one possible correct answer - in the above question. However:
"Igloo" is "odd" because it is built from snow, whilst the others are not.
"Hut" is "odd" because it is made from mud, whilst the others are not.
"Office" is "odd" because people do not live in an office.

[In case you're wondering, Eysenck states that office is the correct answer].

3. The point here is that in order to produce a test involving concepts of "right" and "wrong" answers, the setter has to refer to culture-specific concepts of what he or she considers to be right and wrong answers. In this respect, the person who chooses "igloo", for the reason noted above, receives the same score (zero) as the person who guesses the answer and gets it wrong.

4. The problem, here, should be evident. The basis for the decision as to a "right" or "wrong" answer owes more to the cultural assumptions of the tester than to the supposed level of intelligence of the respondent.

- Insert the Word Missing from the Brackets:
FEE (TIP) END
DANCE () SPHERE.

[The missing word is "ball"].

- The technique here is to identify the logical principle involved in the example (the word in the bracket means the same as the words outside the bracket) and then apply it to the problem - hence, a dance is a ball and a ball is a sphere.
- In this respect, the question is attempting to measure the extent to which a person is able to understand and apply the logical principle / rule that underlies the relationship between the words. The problem, in this example, is that the meaning of the word "fee" is assumed, by Eysenck, to be the same as the meaning of the word "tip" - yet it evidently does not have the same meaning:

On one level, both represent some form of payment for a service.

On another level of analysis, however, a "fee" is a required payment, whilst a tip is a purely voluntary payment.

- Thus, the question becomes one of what this form of question measuring?
 - By identifying the relationship on one level, the respondent is rewarded.
 - By identifying the fact that, on another level, the relationship is not the one put-forward by Eysenck, the respondent is penalised, even though he / she will have demonstrated a level of intelligence superior (in the sense of understanding the precise meaning of "fee" and "tip") to the level required for the "correct" answer.
- What the above examples demonstrate is that it is difficult to devise tests that do not involve some form of culture-specific knowledge. In this respect, it is impossible to know whether one is measuring the variable "intelligence" or simply the ability to use language in a way seen as desirable by the setter of the test.

E. Inheritance or Environment?

1. Before we look at sociological explanations of differential achievement it would be useful to do two things:

- Firstly, to understand the nature of the relationship between intelligence, genetic inheritance and environment.
- Secondly, to understand why "genetic inheritance" does not explain differences in educational achievement.

2. In relation to the first question, it is methodologically difficult (if not impossible) to effect a separation between genetics and environment:

As soon as a child is born, their environment comes into play. Children are socialised in accordance with norms, values, customs, beliefs that reflect their cultural setting. It is theoretically impossible to separate "innate intelligence" from levels of intelligence developed through the socialisation process.

3. However, there is a potential method for measuring the relative influence of genetics and environment and this involves identical twins separated at birth and raised in totally different environments.

- Identical twins develop from the same egg that separates in the womb and they therefore share the same genetic inheritance from their parents. If they are subsequently raised in different environments - yet can be shown to have very similar levels of intelligence - then this would demonstrate that intelligence is largely inherited...

4. In one of the most famous studies of inherited intelligence, Sir Cyril Burt claimed to have discovered that the intelligence levels of identical twins raised in different environments was identical.

- However, in recent years Burt's work has been severely criticised by writers such as Collie (who found evidence that Burt did not do the research he had claimed to have done) and Kamin (who argued that Burt's findings were too perfect in terms of their statistical correlation's, thereby suggesting that Burt had simply made-up his evidence). This evidence probably makes Burt's work unreliable and invalid.

5. A further problem, here, is that - Burt's work notwithstanding - there are clear methodological problems with research of this kind:

- The number of genetically-identical twins born in any society is relatively small.
- The number of identical twins separated at birth is statistically minute.

The main problem, here, is that the sample-size of such cases is so small as to make the reliability and validity of such exercises questionable.

- The concept of environment tends to be treated by educational psychologists as largely unproblematic, involving a very crude form of measurement.
6. Finally, it is possible to demonstrate that the relationship between intelligence (as measured by IQ tests) is insignificant in relation to an individual's life chances in the world of work. O'Donnell ("A New Introduction To Sociology", 1987) shows that the socio-economic background into which an individual is born (rather than "IQ") that conditions the likelihood of success or failure in both the educational system and wider society.