PUPIL CHOICES AT KEY STAGE 3 – LITERATURE REVIEW

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Executive Summary

Context

Much of the research to date on decision making has concentrated on key Stage 4 (for example Foskett et al., 2004¹ and Payne, 2003²) and whilst this has necessarily yielded little on Key Stage 3, it has indicated that both individual attributes and structural factors play a significant part in the decision-making process.

In order to better understand decision-making at key stage 3 the DfES, in 2005, commissioned a brief literature review of pupil choices at key stage 3. This report reviews recent key studies in the UK on the ways in which young people, at age 14, choose their optional subjects or study pathways.

Much of the published research has focused on the nature and influence of individual attributes on young people’s option choices rather than on the part played by structural factors, and so there is a relative paucity of evidence on many aspects of decision-making at age 14. There appear to have been some changes in the subject choices young people make at Key Stage 3 since 1999, although the major gender differences that were observed in Year 9 pupils’ choice of subjects have not changed markedly.

Key Findings

None of the identified studies focused in detail on the complex interplay between the different elements of the decision-making process, concentrating instead on specific issues or focusing on particular elements of the decision-making process such as individual attributes and structural factors.

Individual attributes

- There is evidence that most Year 9 pupils chose their options because they ‘enjoyed’ a subject or had an inherent liking or interest in it. The research is less clear on what influences this enjoyment and the extent to which various factors, for example teaching methodology, sway young people to like a subject.

- Year 9 pupils also appeared to consider the apparent usefulness of a subject to future careers, jobs or training. The extent to which this perceived usefulness is attributed to school factors, to local employment and training aspects, or to parents, is not clear from the research.

• Young people in Year 9 were also influenced in their decision-making by their **self-perceptions of their ability at a subject**, which was often linked to subject enjoyment.

**Structural factors**

• When delivered effectively and timed appropriately **careers education and guidance** appeared to offer scope for equipping young people with the necessary knowledge and skills required to allow them to make informed subject choices.

• The research was divided as to the extent of parental influence over Year 9 options.

• Teachers were identified as an influence on young people, but it was not entirely clear as to which aspects of teacher input influenced (personality or quality of teaching, for example) most influenced young people's decision-making.

**Aims of the review**

The specified brief was to:

• Investigate and report on literature which had bearing on the processes by which decisions are made during and at the end of Key Stage 3 (including on what subjects to study at Key Stage 4).

• Discover the timescale and the important influences involved in that decision making process

**Intrinsic and extrinsic value**

There is evidence in the literature that most Year 9 pupils are motivated to choose their options because they attach **intrinsic value** to a specific subject. This often manifested itself in a specifically stated enjoyment of a subject. Young people also appeared to consider the **extrinsic value** of a subject, mainly in the form of its usefulness to future careers, jobs or training. There is evidence that, when a subject did not seem to hold intrinsic worth for young people, they may still have chosen to study it for its extrinsic worth. Young people appeared not to opt to study a subject unless it held either intrinsic or extrinsic value to them.

**Self-perception of ability at a subject**

There was evidence that young people tended to choose subjects in which they believed themselves to be able. These perceptions could be influenced by structural factors such as setting or banding. Pupils’ perceptions of their ability also appeared to be influenced by the teaching style adopted.
Careers education and guidance

Much of the primary research in this area was focused on the role of careers education and guidance in developing careers-related skills, rather than on its specific impact on subject choices at age 14. However it was clear that guidance played a part in making informed subject choices.

Home background

The impact of socio-economic circumstances and parental advice dominated the literature on conditions outside of the school environment that might influence Year 9 option choice. Although opinion was divided as to the extent of parental influence, they were often identified as an important source of information for Year 9 pupils.

Teachers

Teachers were identified as an influence on young people. What is not entirely clear from the literature is the extent to which pupils were influenced most by the teachers they liked and respected, by those they believed to be good at teaching, or by the teachers who were seen to have a successful record with classes at Key Stage 4. It was also difficult, in the literature, to distinguish between a young person’s liking of a subject and their liking for a teacher.

Recommendations for further research

It is known that important factors in decision-making at 14 include subject enjoyment, extrinsic worth and young people’s self-perception of their ability at a subject. However, even in these known areas understanding needs to be developed and refined in order to enhance pupil motivation and engagement in the learning process, and to increase their self-awareness of how to tackle decision-making. Key areas for further research include:

Individual attributes

1. What exactly do young people mean by subject enjoyment?
2. On what basis do young people judge a subject to be useful and therefore hold extrinsic worth?
3. To what extent are young people’s perceptions of their ability due to inherent factors and to what extent are they the product of school factors?

Structural factors

1. What is the extent to which CEG influences young people and what are the relative levels of impact of the ways in which it is delivered in different types of schools?
2. To what extent are parents influential over and above other influential factors? What is the role of the extended family, in particular the influence of older siblings?
3. In what ways do teachers, including their teaching methodology and personality, influence young people’s choices?
1. Introduction

It is widely acknowledged, amongst both researchers and practitioners, that the choices that young people make in school, both at 16 and at the end of Key Stage 3, can have a significant impact upon their future educational and occupational opportunities, choices and directions. Recent changes to the curriculum at Key Stage 4 (with the introduction of GCSEs in vocational subjects and the equivalences accorded vocational qualifications), along with policy imperatives to remove the perceived gaps in status between academic and vocational subjects and a growing emphasis on personalised learning, have raised to greater prominence the choices that young people make in Year 9. This chapter summarises the context in which the current literature review was commissioned and provides an overview of its key aims.

1.1 The context of the study

We intend that young people will have real choice from the age of 14. Between 14 and 16, whatever choices they make, they should experience a broad curriculum which prepares them well for future life and learning. Whichever route they take, they will not narrow down their options – and will be able to make a further choice about how to continue in learning.4 (GB. Parliament. HoC, 2005)

The emphasis on choice in the recent Government White Paper on 14-19 Education and Skills and the recognition that young people needed to be ‘ready for a range of options’ and that they should be prepared ‘to take responsibility for their future progression and success after the end of compulsory education’ highlights the importance of the subject and pathway choices that young people make at the end of Key Stage 3. This importance was previously acknowledged in the final report of the Working Group on 14-19 Reform (2004), which noted that:

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pupils are increasingly having to make important choices in Year 9 which, for many, could have a significant impact on the direction of their future education and training.\(^5\)

Yet, despite widespread acceptance of the importance of such choices, unequivocal evidence about the processes by which young people make their choices as they move between Key Stages 3 and 4 is less forthcoming. In a recent systematic literature review, focusing on the role played by careers education and guidance policies between Key Stages 3 and 4, the EPPI-Centre (2004) concluded that ‘research is needed on actions and influences that impact on transitions across KS3 to KS4 to the point when decisions are imminent’ and that the ‘influences of ‘internal’ and ‘external’ factors on the outcomes of transitions need to be explored and assessed’.\(^6\)

The apparent paucity of strong empirical or other evidence about the decision-making process in relation to educational choices at age 14 is not entirely surprising. Although the concept of a 14-19 phase of education is not new (it was a key element of the Technical Vocational Education Initiative in the late 1980s and early 1990s, for example) it could be argued that the organization of the current education system, with a structural transition from compulsory to post-compulsory education at age 16, has necessarily led to a greater focus on understanding aspects of decision-making during Key Stage 4 than on understanding the process during Key Stage 3 (see for example, Foskett et al., 2004;\(^7\) Payne, 2003,\(^8\) and Taylor-FitzGibbon, 1999).\(^9\) Such studies have indicated that both individual attributes (attainment, background characteristics, home circumstances and young people’s attitudes to education and responses to the local labour market) and structural factors (such as the role of careers education and guidance, the role of the school and of subject departments) play a significant part in the decision-making process.


However, it needs to be acknowledged that many of the empirical studies that have been conducted in this area (whether at Key Stage 3 or Key Stage 4) also appear to be primarily issue specific (related to developing an understanding of gender stereotyping in career or subject choices, to exploring attitudes to individual subjects or to identifying the role of careers education and guidance in transition, for example). This focus on particular issues, often in an effort to ascertain the impact of particular educational or social interventions, or to identify important influencing factors, has, in turn, led to a focus on particular elements of the decision-making process, rather than on the (often complex) interplay between factors. Recognising this, the Department for Education and Skills (DfES), in February 2005, commissioned NFER to undertake a qualitative study of the decision-making process amongst young people in Years 9 and 11. As part of the wider ongoing study (the results of which will be published early in 2006), the research team undertook a focused literature review, drawing on key studies into the ways in which young people, at age 14, chose their optional subjects or study pathways.

Alongside this study, the reader may find it useful to read reviews of the research on attitudes towards (and perceptions of) individual subjects. In 2000, the NFER began a series of reviews for QCA (Lord and Harland, 2000; Lord, 2002; and Lord, 2003) of young people’s choices attitudes towards subjects in the National Curriculum. These were updated annually to 2003. Much of the analysis in these reviews lies beyond the remit of the current review, but they offer useful insights into why and which particular subjects are perceived more positively than others.

1.2 Aims and structure of the literature review

This brief review seeks to provide some coherent understanding of the current literature in the field. The specified brief was to:

12 Lord and Harland...original report and 3 annual updates
• Investigate and report on literature which had bearing on the processes by which decisions are made during and at the end of Key Stage 3 (including on what subjects to study at Key Stage 4).

• Discover the timescale and the important influences involved in that decision making process

Reflecting the emphases that have emerged from reviews of decision-making at Key Stage 4 and, more widely, from the decision-making sciences, the review adopted a structured approach to reviewing and analysing existing research. In order to address the overarching aims of the study, a series of key questions were developed, around which the search parameters for the literature review were constructed (see Appendix 1). The key questions for the research ranged from the generic (related to the contexts in which young people made their decisions) to the specific (related to the individual characteristics and mindsets of the young people making the decisions). These search parameters, and the search strategy that was subsequently adopted, are outlined more fully in Chapter 2. Prior to presenting the findings from the analyses, Chapter 3 provides an outline of the main subject trends at GCSE that emerged between 2001/02 and 2003/04; the Year 11 cohort in 2001/02 would have been the first cohort to go through Key Stage 4 following the broadening of the disapplication regulations in September 2000.14

Following the literature search and the application of a systematic selection and review process, the chosen literature was scrutinised to yield both first-order concepts (those emerging from the findings from individual studies) and second-order concepts (those emerging from the collated findings). These second-order concepts were then grouped under two broad headings, those related to structural influences on (and interactions with) the decision-making process (see Chapter 4) and those related to individual agency (see Chapter 5) broadly linked to the internal and external factors identified by Moon et al., (2004). Finally, the research team sought to identify and explore those areas that might be defined as constituting both the main ‘blank spots’ (those areas in which questions have been asked, but for which the answers are not yet known) and some of the ‘blind spots.’ Following Wagner (1993), these latter could be defined as those areas that need further illumination ‘in which existing theories, methods, and perceptions actually keep us from seeing

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phenomena as clearly as we might'\textsuperscript{15} These ‘blind spots’ and ‘blank spots’ are summarised and commented on in Chapter 6.

\textsuperscript{15} WAGNER, J. (1993). ‘Ignorance in educational research: or how can you “not” know that?’ 
2. Search strategy and methods

This chapter describes the review’s search strategy and methods. It outlines the search methodology used in order to identify relevant research, the selection process applied for including and excluding material and the way in which relevant studies were analysed and appraised.

2.1 Search methodology

In order to meet the key aims and objectives of the review, the search parameters outlined in Figure 1 were adopted. The period from 1999 onwards included some significant changes to the Key Stage 4 curriculum and to the structure and availability of the support systems available for young people aged 14 + as indicated in Chapter 1. These changes included:

- The introduction of Curriculum 2000
- Disapplying national curriculum subjects to facilitate extended work – related learning at Key Stage 4 (1998), to facilitate study in an area of skill or to facilitate a focus on basic skills (2000)
- The introduction of Connexions
- The Focussing Agenda
- The Increased Flexibilities Programme
- The increased focus on Personalised Learning and Individual Pathways.

The review, accordingly, focussed on work published since 1999, since this coincides with some significant increases in the apparent choices open to young people at the end of Key Stage 3.
Figure 1. The search parameters

<table>
<thead>
<tr>
<th>Overall focus</th>
<th>Empirical research on, and wider literature that has a bearing on, the processes by which decisions are made both during and at the end of Key Stage 3 and on what subjects to study or pathways to follow at Key Stage 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time scale</td>
<td>Work published from 1999 onwards and reports considered to be significant to the study that were published pre-1999.</td>
</tr>
<tr>
<td>Age range</td>
<td>Secondary education up to 16 years old (and post-16 where reflective data on Year 9 options decisions were collected)</td>
</tr>
<tr>
<td>Geographical scope</td>
<td>Documents referring to the English education system and published in English. Where significant studies from other countries were perceived to be important they were included where they helped to inform the study.</td>
</tr>
<tr>
<td>Sources</td>
<td>Published literature reviews, articles, reports, books and monographs, conference reports, committee papers and information on current research studies.</td>
</tr>
</tbody>
</table>

In order to include current ongoing and new emerging research, the searches included ‘grey’ literature such as conference reports and committee papers and work which has not formally been published such as unpublished theses.

2.2 Search strategy

Relevant research literature was identified within the search parameters using a number of complementary search methods. Search strategies for all databases were developed using terms from the relevant thesauri, where these were available, in combination with free-text searching. The keywords used in the searches, together with brief descriptions of each of the databases searched, are outlined in Appendix 2.

Search methods included:

- Bibliographic database searches of education/social science research databases such as:
  - Applied Social Sciences Index and Abstracts (ASSIA)
• Specialist databases searches such as those for grey literature (SIGLE) and for ESRC-funded projects (REGARD). The search of specialist databases also included exploration of relevant websites and gateways.

• Hand searches of previous reviews and bibliographies to identify any articles or reports that might be of relevance to the review. Where documents retrieved by the searches provided secondary references to other relevant reports or articles, those were also pursued.

• E-mail and personal requests to researchers working in this area. These were made through a number of research and practitioner networks (including the National Research Guidance Council) and also to key individuals and contacts identified by the research team and DfES in other organisations and institutions.

2.3 Selection process

Given the necessity for the findings from this review to inform current research and policy imperatives, the reviewing process sought to identify the key documents which would shed light on the research questions. The team defined a set of critical assessments by which the process of selection or rejection of research studies was made.

Studies were included if they shed any light on the processes by which decisions were made during and at the end of Key Stage 3 on what subjects to study at Key Stage 4. Research was also included if it offered any insights into the influences on young people involved in the decision-making process, and/or on the timing of decisions or of support for the process.

Studies were rejected where they yielded nothing specifically on decision-making in Year 9 or at Key Stage 3. They were also rejected if they focussed solely on the compulsory subjects of English and Maths and were not linked to attitudes to optional subjects or to decision-making and young people’s subject choices at age 14. Other studies were rejected when they were concerned primarily with teaching and learning strategies, different styles of teaching pedagogy, the effectiveness of classroom management techniques or different
forms of assessment, but not in relation to young people’s decision-making at Key Stage 3.

It was not always possible to determine from the bibliographic citations whether the population being studied fell within the precise age range (Year 9 or age 14), or was located in England, and, in some cases, the research team sought additional information by contacting with the institutions where the research had been undertaken. This was largely successful.

Approximately 112 potentially relevant items were retrieved following the searches. Of these, 59 were selected for further scrutiny and 20 met the criteria for detailed inclusion in the review. The scope of the studies and their methodologies are outlined in Appendix 4. A number of other studies were drawn on to provide supportive evidence.

2.4 Review processes

Research studies were scrutinised by team members using a common framework (see Appendix 3) in order to ensure commonality and comprehensiveness in the review process. The framework was designed to generate information for three purposes:

- **Cataloguing and reporting** – basic descriptive information (such as full publication details and age of learners) as well as a category descriptor (concerning the broad substantive focus of a study and the key questions that it addressed in relation to the proposed review) were included in order to facilitate cataloguing and subsequent analysis and reporting.

- **Evaluation** – as well as descriptive information, this framework was designed to generate evaluative information about the depth of detail provided about the different aspects of each study (conceptual/theoretical framework, sample, methodology, main findings, key conclusions, and author’s view of implications), and any particular strengths and potential weaknesses that were apparent to the reviewer within the work as reported.

- **Evidence based analysis** – the third purpose of the framework was to enable the generation of ideas about (i) the contribution that individual papers made to the evidence base (i.e. main findings, key conclusions, author’s view of implications, researcher’s view of implications), and (ii) cases of agreement and disagreement between the evidence generated by different papers (that is links).
In terms of appraising the quality of different kinds of research reports, the project team analysed the studies, both in terms of drawing distinctions between different kinds of evidence and assessing the validity or trustworthiness of individual studies’ findings. The project team sought to do this by:

- **Drawing distinctions between different kinds of evidence** – Studies included, for example, quantitative and qualitative research, and studies that focussed on particular characteristics, subjects or types of institution versus broader or national studies.

- **Assessing the validity or trustworthiness of individual studies’ findings** – Research was assessed according to the research design, sample size, methods of data collection and data analysis, theoretical approach, and the relationship between claims made and evidence presented.

In addition, every effort was made to review studies from within the research tradition in which they had been conceived. Each study was assessed to establish its strengths and weaknesses, in order to differentiate between solid and conclusive findings and potential emerging results. The research team were aware that it was not only important to establish evidence about the process and timescale of decision-making and the key influences surrounding it, but also to establish where there were gaps in the evidence. These findings were important to inform current research in the areas of decision-making in Years 9 and 11.

### 2.5 Focus of reviewed literature

The research, within the set parameters, encompassed smaller qualitative research, regional studies and large-scale national qualitative and quantitative projects. Some research that had been conducted outside the timescale selected for the review revealed some valuable ideas and understanding that informed the rest of the review. However, in some cases, relevance was diluted by the number of curriculum changes that had occurred in the intervening years.

Overall, there were few studies that provided an overview of the range of factors influencing young people in Year 9 as to their Key Stage 4 option choices. The lack of substantial evidence for establishing the key factors that influence pupil choices at Key Stage 3 means that, although understanding of this complex area has been progressed, there is still much to be researched.
The review process highlighted the scarcity of evidence in some areas, revealing many gaps in basic knowledge and understanding about decision-making amongst young people at age 14. These gaps, and the implications they raise for the provision of appropriate support for decision-making in Year 9, will be explored in Chapter 6.

The research studies that met the criteria for inclusion yielded information on:

- **Structural elements**
  - Support mechanisms
  - Institutional factors influencing choice including the role of the school

- **Individual elements**
  - Pupil perceptions of and attitudes toward individual subjects
  - Pupil perceptions of their ability and the role it played in subject choice
  - Parents, teachers and other influences on decision making

- Some limited information was available on
  - The influence of the teaching environment
  - The timing of the decision-making process
  - Impact of the media

- No information was available on
  - The ways in which subject options were presented to young people
  - The subject combinations chosen by young people for Key Stage 4
  - The role played by local labour market information on influencing subject choice
  - Decision-making processes specifically amongst young people at Key Stage 3
  - The place of role models.

### 2.6 Analysis

An analytical framework was devised whereby the research team could relate the findings to the questions under investigation. As discussed in chapter 1, these findings were then grouped under two broad headings – structural and individual. Elements of the structural dimension were synthesised within the analytical framework. These included, for example, the role of the school, and
support and guidance mechanisms. **Individual** elements, such as the young person’s perception of their own ability at a subject, their perception of how useful the subject was to future employment and the influence of their family on the process, were also synthesised. The interconnectedness of these various strands were considered at this stage.

The research team assimilated the available evidence and drew out the key points that the studies were providing. These were termed the ‘first-order concepts’. The analytical framework then enabled cross-referencing and the establishment of linkages between subjects. This process allowed the key messages from the literature to emerge. These were termed the ‘second-order concepts’. These findings were then separated into two sections, structural influences on the decision-making process and individual influences on the process. These structural elements are explored in Chapter 4, whilst the individual dimension is discussed in Chapter 5. Prior to this exploration, however, possible emerging trends in subject choices since 2001/02 are examined.
3. Recent trends in optional GCSEs

In 1998 the cohort of young people choosing their optional GCSEs could, for the first time since the introduction of the National Curriculum, also choose to follow a work-based course instead of one or two of the core subjects of design and technology, modern foreign languages or science. The regulations were modified two years later to follow up an area of talent or skill or to focus on basic skills. In 2004, the study of design and technology and modern foreign languages was deemed no longer compulsory at Key Stage 4. It is suggested that these changes, as well as other changes to the Key Stage 4 curriculum, such as the introduction of Curriculum 2000, Connexions and the Increased Flexibilities Programme, have influenced the uptake of different optional GCSE subjects over the years.

It is appropriate, within the context of this review, to examine the rise and fall of both individual optional subjects and science over the last few years. It is relevant that science is examined because an element of choice is involved; it can be studied as either a single or dual award GCSE, or as a GCSE in a vocational subject for example, (Applied Science). Moreover, recent reforms to the key stage 4 curriculum have meant that science could be disapplied for some young people to enable schools to better meet their students’ individual needs and strengths. This chapter outlines some of the trends in GCSE optional subjects and in science over the last three years since the academic year 2001/02. This also provides the background for studies in this review that focus on specific subjects, for example, modern foreign languages, history, geography, science and design and technology.
### Table 1  Attempted science GCSEs (percentage)

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<th></th>
<th>2003/04c</th>
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<td></td>
<td>Boys</td>
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<td>Total</td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
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<td>Any science</td>
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<td>Double award</td>
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**Source:**

- a) [http://www.dfes.gov.uk/rsgateway/DB/SFR/s000357/tab002.xls](http://www.dfes.gov.uk/rsgateway/DB/SFR/s000357/tab002.xls)  (Table 2)
- b) [http://www.dfes.gov.uk/rsgateway/DB/SFR/s000474/tab006.xls](http://www.dfes.gov.uk/rsgateway/DB/SFR/s000474/tab006.xls)  (Table 6)
- c) [http://www.dfes.gov.uk/rsgateway/DB/SFR/s000585/index.shtml](http://www.dfes.gov.uk/rsgateway/DB/SFR/s000585/index.shtml)  (Table 6)

While more than 90 per cent of the 15 year olds enter some science GCSE, Table 1 indicates that the numbers taking any science have declined since disapplication was introduced. With a reduction in the overall proportion entered for double award GCSE science, the proportion attempting single award science, physics or biology have remained stable, and there has been a slight increase in the proportion following a chemistry course. Proportionally there was no change in the ratio of boys and girls attempting science GCSE, although it is noteworthy that a higher percentage of girls continue to be entered for any science particularly for science dual award. Moreover, the data shows that more boys study biology, chemistry and physics GCSE than girls. Table 2 outlines the numbers attempting optional GCSEs.
<table>
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<tr>
<th></th>
<th>2001/02a</th>
<th></th>
<th>2002/03b</th>
<th></th>
<th>2003/04c</th>
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<tr>
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<tr>
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<td>287</td>
<td>581</td>
<td>301</td>
<td>295</td>
<td>596</td>
</tr>
<tr>
<td>(000s)</td>
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Source:

a) [http://www.dfes.gov.uk/rgateway/DB/SFR/s000357/tab002.xls](http://www.dfes.gov.uk/rgateway/DB/SFR/s000357/tab002.xls) (Table 2)
b) [http://www.dfes.gov.uk/rgateway/DB/SFR/s000474/tab006.xls](http://www.dfes.gov.uk/rgateway/DB/SFR/s000474/tab006.xls) (Table 6)
c) [http://www.dfes.gov.uk/rgateway/DB/SFR/s000585/index.shtml](http://www.dfes.gov.uk/rgateway/DB/SFR/s000585/index.shtml) (Table 6)

As can be seen in Table 2 the proportion following other subjects covered by disapplication regulations have also fallen. Design and Technology has fallen from 67 per cent to 63 per cent, while modern foreign languages has fallen from 76 per cent to 68 per cent with a particular decline in French. Of those taking any modern foreign language, the gap has increased between the numbers of boys and girls choosing a language. The differential in 2001/02 was nine percentage points. By 2003/04 the differential had increased to 10 percentage points. Geography has shown a relative decline in popularity (from 35 per cent in 2001/02 and 31 per cent in 2003/04, as has business studies (from 15 per cent to 13 per cent) and Information Technology (from 17 per cent to 12 per cent). Religious studies has seen a small increase in uptake, a
possible reflection of the fact that citizenship may be perceived to be more important. Like Modern Foreign Languages, some subjects appear to be more popular with different sexes. Information technology, business studies, geography and P.E. for example, were attempted by a higher proportion of boys than girls, while girls were more likely to attempt GCSEs in drama, art and design, English literature and religious studies. The reasons for the decline in some of what were called the Foundation subjects are not as obvious as the reason for the decline in science, modern foreign languages and design and technology. It is possible that the decline in Information Technology may be a reflection of the fact that more students have sat GNVQ intermediate I.T. and the European Computer Driving Licence in recent years, but there is no evidence that this is necessarily the case.

The following two chapters seek to shed some light on why young people choose the optional GCSEs that they do and highlights the aspects of the decision-making process that have not been widely researched and are still not fully understood.

As indicated, the figures appear to suggest a decline in popularity in some subject areas, although it should be noted that the tables only present data over a three year period. For some subjects (such as Science, Modern Foreign languages and Design and Technology) any such decline is likely to be primarily (though not solely) the result of disapplication regulations introduced in 1998 and 2000. For other subjects, the reason for the decline is less clear. While the 2004 cohort, in particular, would have had access to new GCSEs in vocational subjects and to courses leading towards NVQs and other vocational qualifications, some subjects appear to have been in decline prior to that date. No analysis has yet been undertaken to look at the impact the new qualifications have had on take-up in other subjects, or whether the apparent decline in popularity in subject areas is due to other factors.
4. Structural dimensions of young people’s choice

In order to understand the processes by which subject choices are made during and at the end of Key Stage 3, it is important to understand the context in which they are made. In determining how far it is possible to characterise young people’s choices at age 14, the review has been partitioned into structural factors (such as school provision, school ethos, type and teaching styles) and individual factors (such as the pupil’s perceived personal enjoyment or personal usefulness of a subject). This chapter reviews the extent and nature of research on the structural factors influencing choices at age 14. These structural factors include institutional or school-based influences, as well as broader contextual issues such as socio-economic factors, the role of careers education and guidance and the timing of support interventions.

It is evident that, throughout a young person’s school experience, the influence of both individual and structural elements shape the choices and preferences that emerge. Therefore, while the influence of the institutional context is the key focus of this chapter (individual aspects are explored in chapter five), it should be borne in mind that the two elements do not act in isolation. In a seminal study by Ryrie et al., 1979 (reported in Davies et al., 2004), substantial variations between schools in the proportion of students studying different subjects could not be interpreted as a result of institutional factors alone, leading Davies et al. (2004) to suggest that subject choices may be partly formed through institutional influence and partly through personal characteristics and aspirations. Reference will be made to this complex interplay between the structural and individual agents where relevant.

It should be noted that the reports by Davies et al. (2004), and Adnett (2003) are based on an ongoing ESRC funded study. The references included here are papers from the study. However, we have not yet managed to get sight of the final report for the project: Davies, P., Adnett, N. and Coe, R. (2004). Within School Competition and Pupil Achievement. Swindon: ESRC. This, we are aware, includes some relevant material, but the British Library, which includes it on its catalogue, has so far not been able to track it down in the system.
Key findings

The key structural factors that emerged from the reviewed literature, which appeared to both shape and determine the ways in which a young person chooses their GCSE optional subjects, were:

- The learning environment of the institution, including approaches to teaching and learning, and the pedagogies adopted within subject areas.
- The structure of the timetable, that is, the number of periods a week allocated to a subject (in itself a potential indicator of the status accorded a subject in a school).
- The grouping of pupils by prior academic attainment.
- The effectiveness and timing of a school’s careers education and guidance.
- The complex array of broader structural influences, including the socio-economic background of the pupil and the school.
- Schools’ interpretation of policy changes.

This chapter explores what the literature revealed about these key structural dimensions of young people’s choice and concludes with a summary of the findings. To begin with, it explores the reality of the notion of choice at Key Stage 3. Is the concept of choice valid in existing curriculum structures and across all schools? Do young people have a real choice about the subjects they study at Key Stage 4?

4.1 Does choice exist?

Some commentators have argued that the introduction of the National Curriculum in 1988 greatly restricted subject choice for schools and pupils up to the age of 16 in England. Davies et al. (2004) in their presentation to the British Educational Research Association conference (BERA) in 2004 argued that there was a common perception that some subjects lost their previous standing in the school curriculum as more time was spent on the then extended core subjects of English, Mathematics, Science, Modern Foreign Languages and Design and Technology. The gradual relaxation, however, of requirements that all students should study Modern Foreign Languages and Design and Technology, coupled with the introduction of GCSEs in vocational subjects has, they stressed, steadily re-introduced opportunities for greater subject choice.
These changes have arguably led to the opening up of the curriculum between Years 9 and 11, meaning that subject choice and the combination of subjects on offer to young people have become more complex and are likely to become more complex in the future. While there is some evidence to support the assumption that schools are restricted in what they can offer young people in the way of time-tabling restrictions and teacher availability, such studies also point to schools, and thus children, moving towards the pattern of the broad and balanced curriculum envisaged at the introduction of the National Curriculum. But to what extent does ‘real’ choice actually exist for young people?

The literature suggests that young people’s decisions about post-14 pathways appear to be influenced or proscribed by school-based influences and the broader structural elements that operate on 'choice'. The various studies do not always agree, however, on the relative weighting of these influences and, indeed, some commentators conclude that ‘choice’ is actually very limited or does not exist at all.

Turner (2003), in his thesis on the attitudes of high school pupils to technology, observed, for example, that option choice was, in reality, very limited because of the way in which options bands were structured in schools. Young people, he concluded, did not have ‘totally free choice’ (p. 99). The LSDA (2003) study of young people in Key Stage 4 on alternative programmes based in colleges also found that young people are not always offered a broad and balanced curriculum. They noted, for example, that while the learning provision being undertaken by young people ranged from full-time attendance at a school unit, college or training provider, to one day per week, colleges were not obliged to offer non-core subjects such as physical education. As a result, for some young people, the choices they made about one aspect of the curriculum (the choice to follow a vocationally-related programme) reduced their options elsewhere in the curriculum and indeed, meant that few had the opportunity to take part in the aspirational target of two hours per week of physical activity that is recommended for young people in schools. It is suggested that a ‘holistic partnership approach in planning and delivery could help to bridge such gaps’ (p. 1).

Unwin et al. (2004), in a recent literature review into what determined the impact of vocational qualifications, goes further, questioning whether it is
meaningful to speak of choice at all. They argued that ‘individuals’ choices are constrained by a wide variety of socio-economic, educational and personal factors’ (p. 90). They argued that, because of the extent to which vocational qualifications appeared to be associated with pupils from lower social class backgrounds and with low levels of attainment in compulsory schooling, ‘real choice’ does not exist for many young people. While there is no conclusive research evidence regarding the extent to which young people are offered a ‘real’ choice in Year 9, there is a body of literature supporting the notion that structural factors do have some constraining influence on young people’s choices at age 14. The following sections explore the factors, as reported in the literature, behind the structural dimensions of young people’s choice and decision-making.

4.2 Structural factors influencing choice

Davies et al. (2004), drawing on cross-sectional data from the YELLIS database, explored the differences between schools in the patterns of GCSE examination entries across subjects. They found that:

For each of our seven subjects we had schools where no students were entered and in other schools virtually all students were entered for GCSE examination…for all subjects there were large variations in the proportion of students entered. The variation within and between subjects, and the large size of the standard deviations, confirms that there are large differences across schools regardless of the constraints imposed by the National Curriculum (p. 7).

Some of the differences would be explained by GCSE entry policy, but the authors pointed out that:

the much greater differences between schools in the proportion of a cohort entered in optional subjects suggests that there may be other factors at work, originating in both school and student behaviour, that affect subject choice decisions (p. 7).

They suggested that, while there was some evidence that individual’s socio-economic background influenced subject choice (students from wealthy families were more likely to be entered for GCSE examinations in history,

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YELLIS (Year Information System) is operated by the Curriculum, Evaluation and Management centre (CEM) in the University of Durham and has been in operation since 1992.
French and German, while those from poorer families were more likely to be entered for business studies or home economics/food technology), there was greater variation between schools than between pupils. Entry for GCSE geography, for example, was found not to be dependent on an individual's social background, but was more related to the socio-economic catchment of the school; entries were higher in schools that had a low proportion of pupils receiving free school meals. The research did not offer reasons as to why this should be, but the implications are that schools may exert a significant influence on the subjects taken by pupils attending them.

This balance between the extent of independent choice exercised by students (Stables in 1997, for example, suggested that students exercised a significant level of independent choice) and the extent to which schools control that choice, has been the subject of a number of recent research studies. Adnett et al. (2003), also drawing on YELLIS data, argued that the balance of the (admittedly small) body of research in this area suggests a stronger role for institutional (school manager, teacher and careers’ advice) effects. Through the current review, evidence was found of the influence of school level factors, including the ways in which schools responded to new curriculum initiatives, the pedagogical approaches they adopted, the extent to which there was a focus on attainment outcomes in schools and in departments and the messages that were sent about the relative status of subjects within the school.

### 4.2.1 School responses to new initiatives

Nelson et al. (2001) found that some schools could exert a significant influence on young people’s subject choice. In their study of the disapplication of national curriculum subjects at Key Stage 4, the argued that the new regulations were found largely to further empower schools, by giving them the facility to have pupils disapply up to two of Modern Foreign Languages, Design and Technology or Science for particular pupils in order to enable them to follow extended work-related learning. However, while it might be expected that this could increase choice for pupils, Nelson et al. indicated that, in some cases, this freedom led to the possible limitation of choice for some young people:

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Modern Foreign Languages was the subject most often disapplied because it was perceived as the subject the students found most difficult. Staff were concerned that some students could not speak or write English fluently and felt that their achievements in MFL would be minimal (p. 19).

As indicated in Chapter 3, the proportion of young people studying Modern Foreign Languages has reduced since 2001/02. While some young people might chose to drop a subject that they found difficult, such perceived difficulty with a subject, it might be argued, may not always be sufficient grounds for disapplication should the young person wish to continue a course of study.

Although the disapplication regulations (and, more recently, the Increased Flexibility Programme and the introduction of new GCSEs in vocational subjects) were partly designed to increase the number of options and pathways open to young people, there is evidence to suggest that schools have also played a role in directing young people towards academic or vocational routes. The report from Ofsted in 2004 (on the introduction of new GCSEs in vocational subjects) found evidence that pupils who were lower achievers (rather than high attainers) in academic subjects were encouraged to take vocational subjects.

Nonetheless, there is also some evidence that, despite some structural influences on choice (with school recommendations on academic or vocational routes based largely on academic performance), individual choice is also playing a role in pathway selection. In an analysis of the provision of alternative learning activities for 14-16 year olds in the East Midlands, the Learning and Skills Development Agency (2003) found some evidence that an ‘attitudinal shift’ is taking place, with young people giving greater parity of esteem to vocational and work-related learning and moving away from seeing academic programmes as superior (LSDA, 2003). These findings are particularly important, as they come in light of the introduction of the Increased Flexibilities Programme, suggesting that the Programme has been successful, at least in part, in embodying greater parity of esteem between the two pathways.

19 See also the discussion in Section 5.6.
4.2.2 Pedagogy and subject content

The research literature suggests that the teaching and learning environment, the methods and styles used to teach a subject and the actual content of a subject may be important in determining pupils’ subject choices, although the numbers of young people who express enjoyment of the teaching styles used in subjects (or their technical content) at Key Stage 3 and those who opt to follow the subjects in Key Stage 4 are not commensurate (see Adey and Biddulph, 2001). There is a distinct recent body of literature related to the different perceptions of school and college environments amongst young people in this age group (for example, Golden et al. 2004 and LSDA, 2003) while a limited number of studies (particularly Adey and Biddulph, 2001 and Adnett et al., 2003) have focused more particularly on identifying these pedagogically- and content-related factors in the study of particular subjects (history and geography) at Key Stage 3.

Golden et al. (2004), reported that those students who chose, in Year 9, to follow the Increased Flexibilities Programme at Key Stage 4, did so partly because they preferred a practical style of teaching and learning (Golden et al., 2004). They found that one of the pupil-derived highlights of vocational learning was ‘learning in a different way’ and that one of the structural reasons pupils chose to participate in the programme was because they wanted to learn away from school – a move that the young people associated with increased freedom and flexibility. In their analysis of the provision of alternative learning activities for 14-16 year olds, the LSDA (2003) established that one of the highlights of vocational learning was again being away from school, which was often described by young people as a stressful environment. While these studies do not make explicit the link between pedagogy, the structural elements of a subject and subject choice, it seems likely that these elements may have played a part in informing young people’s decisions at age 14.

In their questionnaire survey of 1406 Year 9 pupils in ten East Midlands’ comprehensive schools, Adey and Biddulph (2001) found that both subject content and the methods used to teach a subject were important elements contributing to influencing pupils’ subject enjoyment. Pupils reported enjoying using resource-based learning; creative writing; group enquiry and group discussion in history lessons, while the study of place, visual and oral presentations and group work were popular activities in geography. However,
the authors found that young people did not necessarily believe that they would encounter these approaches (or at least the same level of enjoyment) at GCSE. Young people also expressed an intrinsic interest in subject content (see Section 5.1) and to favour practical subjects such as PE, art and technology, (Colley and Comber, 2003). However, the authors suggest that given the 'large discrepancy between the number of students who enjoy geography and/or history at Key Stage 3 and the number who opt to study each subject at GCSE... enjoyment (brought about by content or pedagogical approaches) was deemed an insufficient reason for choosing the subject at GCSE; (Adey and Biddulph, 2001. p. 449). In summary students did not appear to have made their subject decisions based solely upon the pedagogical styles they had encountered to date.

4.2.3 A focus on attainment outcomes

Davies et al. (2004) believed that subject choices amongst young people might, to some extent, be based on the performance of subject departments. The study’s authors found that departments that actively discouraged lower achieving students from enrolling or entering a GCSE examination were able to report higher departmental rates of achievement. This, they found, happened most in French and German. The implications of this finding might be that indirect internal competition between departments acts as a constraint on individual choice.

Adnett et al. (2003) argued that when departments (such as History and Geography) were directly competing with each other (as a result perhaps of particular option banding or timetabling practices within the school), departments might attract more students where they were seen as adding more value. They suggested that young people might be selecting their subjects on the basis of previous departmental (or teacher) results and choosing their courses in the belief that they had a better chance of achieving a high grade (based on at GCSE). In this instance, structural factors may have influenced, though not constrained, young people’s subject choices.

The research evidence also suggested that the grouping of pupils by prior attainment played a part in influencing young people’s subject choices. Ireson et al. (2001), in their report to the Nuffield Foundation, found some indication that the degree of setting in a school influenced a pupil’s enjoyment of a
subject. According to the pupils, the bottom set was made to feel ‘thick’ and the classes were said to be disruptive, while the top set was stigmatised, often called ‘boffins’, and complained that they were under too much pressure. This, in turn, could influence their decision to take on the subject for further study (see section 5.1).

4.2.4 The status accorded subjects by schools

Turner’s (2003) investigation into the attitudes of high school pupils to technology revealed that a school’s timetable system influenced students’ opinions of subjects. He found that pupils made a direct association between the number of periods allocated to a subject each week and its importance within the curriculum; the result being that subjects such as English, mathematics and science were seen by pupils to be important and beneficial. While no specific reference was made to optional subjects, the corollary was that subjects given less timetable time were less highly regarded.

There was little research evidence regarding the combinations of optional subjects studied by, or on offer to young people. While schools offer optional subjects in different ways, for example giving young people the possibility of choosing one subject each from blocks of subjects or from one single open-block of subjects, there was no evidence regarding the outcomes of the various systems in place. Nor was there any clear indication of the impact that the various option systems had upon young people's perceptions of subject status or extrinsic value.

4.3 School Support Mechanisms

Young people's decision-making is, arguably, supported by the inter-connection of pastoral, academic and guidance support. The searches revealed some relevant literature on guidance support for young people in Year 9, but little on pastoral or academic support in relation to subject choice. The following section summarises the (relatively limited amount of) literature related to the ways in which young people are supported in making subject choices, as well as the need for, and the timing of, such interventions.
4.3.1 Careers education and guidance support

The literature suggests that the extent to which careers education and guidance (CEG) plays a role in determining the subjects to be studied at GCSE varies from school to school and between individuals. In their systematic review into the impact of careers education and guidance on transitions from Key Stage 3 to Key Stage 4, Moon et al. (2004) found that:

Broadly the evidence suggests that CEG interventions can improve students' learning and help them to prepare for the transitional phase. Students can gain clear insight into the choices available to them and may be equipped with knowledge and skills to prepare for decision-making and the implications of the choices they make (p. 46).

This view is supported by OfSTED’s (2004) finding that ‘in general, schools give their Year 9 pupils sound or good written and verbal guidance on Key Stage 4 option choices’ (p. 29). Morris et al. (1999) posit that when careers education and guidance is integrated into a school’s ethos and culture (as distinct from being perceived as separate from the rest of the curriculum), it is more likely to promote careers awareness in young people in Years 9 and 10. The authors suggested that a school ethos supporting careers education and guidance led to greater awareness amongst young people with regard to subject choice and careers. However, in a later study for the then DfEE, Morris et al. (2000) suggested that few schools appeared to have made a clear or overt link between academic, personal and career guidance, indicating that this integration was not yet embedded and that an understanding of the career relevance of subjects or of the skills gained through subjects was not widespread.

Indeed, one study, referring to what the author considered to be gender stereotyped subject choices, reported that pupils had a very narrow understanding of subjects’ career relevance. Turner (2003) noted that pupils could only see the relevance of food technology, for example, in relationship to careers which involved the use of food. Pupils, he reported, thought that food technology was useful ‘...if you want to be a chef...’ but more specifically ‘...it won’t help me to become a pilot’ (p. 108).

Morris et al. (2001) found that the group of young people often classified as ‘hard to help’, often (but not exclusively) characterised by socio-economic needs rather than to career-based needs, benefited from the extra support
provided by the careers service as a result of the 1998 ‘refocusing’ agenda. However, they argued, there was a significant reduction in the amount of help available to clients in education, which meant that many young people did not get the individual guidance help they required at that point. While there is a significant emphasis on the role of schools in the guidance process, there is still a question about the extent of support available to the majority of young people, particularly those in Key Stages 3 and 4 (Morris, 2004).

The Clemens et al. study (2003) suggested that the input from the Connexions Service to the ‘hardest to help’ largely met their needs, with younger respondents (aged 13 to 15 years old) more likely (78 per cent) to report that Connexions helped them to make decisions about their future than those aged 16 years and older (66 per cent). While the study’s findings should be treated cautiously (the sample represented the ‘hardest to help’ and only three per cent of respondents 16,120 respondents—were from the 13 to 14 year old age group), they do shed further light on the service provided by Connexions.

In summary, the research evidence suggests that where it is available, careers education and guidance support can help toquip young people with the skills and knowledge necessary to make informed subject choices.

4.3.2 The timing of support

There was limited evidence within the literature about the timing of decisions or support interventions, nor of the stage at which young people first start considering their options or, subsequently, when choices are made. Moon et al. (2004) found that the timing of careers education and guidance was very important to the success of such interventions, and that, significantly, interventions were most effective when made some time in advance of when young people have to make subject choices.

This argument was supported by Payne (2003) who suggested that many young people consider their post-16 options considerably before Year 11. While Payne’s research pointed to choices made post-16, as distinct from those made at age 14, it does inform our understanding of the decision-making process of the younger age group. She points out that Ryrie (1979), for example, reported that over two-fifths of those who left school at 16 had already decided to leave three years previously (Payne, 2003, p. 15), and that
Hemsley-Brown (1999) found that although few of the students in her study about student perceptions and priorities to college choice had made firm decisions about post-16 routes before Year 10, all had preconceptions about the kind of further education options they were prepared to consider.

With regard to science education, Reiss’s (2001) ethnographic study found that young people became less enthusiastic about science as they progressed through the secondary phase, largely because of a greater focus on examinations and subject relevance/importance. Similarly, Davies (2004) found, in her study of the gender gap in modern foreign languages, that both sexes found French ‘less useful’ as they progressed through school. The studies differ, however, in that while Reiss’ cohort of young people started off enjoying science, Davies found that disaffection in languages started as early as the first term in Year 7 and merely became more widespread with time. While neither study makes a direct link between subject disaffection and subject choice/attitudes to further study, a relationship seems to exist between perceived subject content at GCSE and subject enjoyment. The implication is that young people may be making decisions about their attitudes to subjects studied at GCSE at an early stage in their secondary schooling.

### 4.4 Summary

In conclusion, the research evidence suggests that schools can affect subject choice both directly (through recommendations to individuals) or indirectly, by shaping the context within which subject choices are made. However, from the available research evidence, the extent of the influence of structural factors on subject choice is not entirely clear. There is recognition that both structural factors (for example pedagogical styles and the effectiveness and timing of support interventions) and individual influences play a role in determining the processes by which subject choices are made both during and at the end of Key Stage 3, but the literature is not always agreed on the relative weighting of these influences. These individual factors are the focus of the next chapter.
5. **Individual aspects of young people’s choice**

Within the reviewed literature there was some evidence that certain dimensions of the choice faced by young people in Year 9 were not so much effected by structural elements or the school they attended, but by individual factors such as the pupil’s personal enjoyment of a subject or the perceived usefulness of a subject to a preferred future job or career. It is evident that these individual and structural influences do not act in isolation. A young person’s enjoyment of a subject is going to be influenced not only by factors individual to them but also by, for example, the way in which the subject is taught and by the wider influences of the school environment. Similarly, the way in which a young person perceives a subject to be useful to an aspired future career is going to be influenced by personal interpretation, which in turn will not only be affected by, for example, family and friends, but also by careers education and guidance.

**Key findings**

The key individual factors that emerged from the reviewed literature which shaped how a young person chose their GCSE optional subjects were:

- Pupils’ perceptions of a subject, both in terms of its intrinsic, inherent value, which manifested itself as enjoyment of and/or interest in a subject, and its perceived extrinsic value in terms of usefulness to a future job or career
- Pupils’ perceptions of their ability at a subject, that is, whether they believed themselves to be good at a subject
- The unique and complex array of influences on a pupil from their family, teachers and extended circle of personal contacts
- Preconceptions of subject appropriateness by, for example, gender or ability, in terms of vocational and academic focus.
- Pupils’ awareness, or lack of awareness, of the alternatives open to them, not only at 14 years old but also in subsequent years

This chapter explores what the literature revealed about these key individual factors and concludes with a summary of the findings.
5.1 Perceptions of subjects

The literature suggested that the way in which young people perceive a subject, both in terms of their level of enjoyment of it and the value they attach to it regarding future jobs and careers, is an important factor when choosing their GCSE optional subjects. Usefulness was seen as the ability to yield short or long term benefit to future employment. Whilst the available literature did not hint at the strength of the relationship between subject enjoyment and subject relevance to future career goals, what is clear is that both are drivers (to a greater or lesser extent) in influencing subject choice. Lord and Harland (2000), in their review of pupils’ experiences and perspectives of the National Curriculum, reported that the ‘factors influencing subject choices have included enjoyment, career-usefulness and ability’ (p. 65). In addition they pointed out that much subject inclination research related to gender preferences, such as the decreasing gender gap in the sciences, and the fact that girls tended to express a preference for course work while boys preferred examinations.

According to current quantitative research being conducted by the NFER on behalf of the Engineering Technology Board (ETB), 91 per cent of Year 9 pupils stated that they chose a subject because they liked it or found it enjoyable. This figure rose even higher amongst the more able pupils and those from a higher socio-economic background. The second most important reason cited by the young people was that they believed that they needed the subject for a future job, career or training (87 per cent). Each of these elements, perceived subject enjoyment or intrinsic value, and perceived subject usefulness or extrinsic value, is considered in turn in this section.

5.1.1 Perceived intrinsic value

Enjoyment of a subject and its perceived inherent and intrinsic worth is different for each individual pupil. Lord and Harland (2000) reported that enjoyment of the curriculum and specific subjects had been a topic of much research, ‘pupils’ criteria for enjoyment are based on fun and perceived ability or ease of subject! The evidence would suggest that the intrinsic value of a subject is a key factor in determining subject choice, but it is in itself influenced by many external and structural factors.
Stables and Wikeley (1999), in their quantitative comparative study into changes in school students’ approaches to subject option choices, which took place in 1984 and 1996 in the West of England, found that subject enjoyment was a key factor in the decision-making process, and that enjoyment and perceived usefulness (itself associated with career relevance) were often closely related. Modern Foreign Languages (MFL) were seen as being particularly less enjoyable. ‘MFLs are currently not rated highly for their usefulness and are seen as among the least enjoyable subjects’ (p. 31).

The concept of enjoyment, however, is not straightforward. From Reiss’s (2001) small scale ethnographic study into pupils’ experiences of and views about their secondary science education, one can derive five reasons why pupils appear to enjoy a subject.

1) pupils believed the subjects were easier
2) subjects were related to out-of-school interests
3) personality reasons – some disciplines appeared to suit a pupil’s way of working more than others
4) pupils felt the subjects had the best teachers;
5) pupils believed subjects were relevant to their career intentions (p. 37).

These five reasons range from perceptions of subject content, through pedagogy to more extrinsic values, suggesting that the concept of ‘enjoyment’ may require further examination.

Adey and Biddulph (2001) also commented on the complexity of the notion of ‘enjoyment of a subject’. In their exploration of subject choice at 14+ in geography and history, they stated:

This survey indicates that, although the majority of pupils enjoyed their humanities lessons during Key Stage 3, the perception was that the same level of enjoyment would not be inherent at GCSE. What is not clear is to what extent this perception is peculiar to history and geography and to what extent it relates to GCSE study in general. (p. 448).

They continued with a suggested distinction between enjoyment and interest:

What is clear is that pupils are drawing a distinction between interest and enjoyment, i.e. interest relates to subject content and enjoyment relates to the learning processes. If the Key Stage 3 data reveals...
anything at all, it is that the ‘geographical content’ of the subject...holds some intrinsic value for pupils, and so the ‘interest’ factor may come from the content. (p. 448).

The authors commented on how pupils reported enjoying various aspects of teaching styles (see Section 4.2.2). The questionnaire survey also found that both history and geography pupils were anticipating a lot of reading and writing at GCSE level. Whilst the authors stressed that this was not necessarily a negative outcome in relation to potential ‘enjoyment’:

*It may have implications for how the subjects are presented to those pupils who struggle with their communication skills but who may, at the same time, have a good conceptual understanding.* (p. 449).

No association was made between student opinion in Year 9 and subject choice for Years 10 and 11, but the findings could indicate that the perception of a subject’s content is as important as the actual content of a subject when pupils come to make their Year 9 choices.

Enjoyment of a subject was also found to be influenced by setting and teaching environment, according to Ireson *et al.* (2001) (see Section 4.2.4). They found that grouping young people according to prior attainment influenced a young person’s enjoyment of subjects and school. ‘The perceived advantages of setting were that the workload was appropriate and pupils could improve their performance’, but this was offset by the disadvantages, which were seen to be ‘the negative impact on self-esteem and self-confidence, bullying of pupils in top and bottom sets, stigma, and teachers’ low expectations of bottom sets’. (p. 8).

Lord (2002) observed that enjoyment was also linked with age in what way??, while Harland *et al.* (2002) noted that there appeared to be a decline in enjoyment of the curriculum during Key Stage 3 for both lower and higher attaining pupils.

The environment in which a subject was taught was also considered to influence subject enjoyment according to the Learning and Skills Development Agency (LSDA) (see also Section 4.2). They found that young people expressed their enjoyment in being part of college life and experiencing vocational courses and work-based learning. They claimed to have enjoyed learning in a different way, away from school, and believed that
learning had a purpose and meaning in the new environment. Similarly, Golden et al. (2004) reported that those students who chose the IFP did so partly because they preferred a practical style of learning and partly because the vocational area was of interest to them. This is another example of how structural and individual factors are closely interwoven.

5.1.2 Perceived extrinsic value

The reviewed literature identified some evidence that the way in which young people viewed how useful a subject was to their future career played a part in how pupils chose subjects at Key Stage 4. These perceptions were, in turn, influenced by other factors, including, for example the way in which schools linked (or did not link) subjects to specific careers, and on the career value associated with the subjects preferred by pupils’ key advisers or those people who influence them. These perceived extrinsic values were open to influence from a wide variety of sources.

However, evidence would suggest that perceptions of the usefulness of a subject are themselves influenced by many factors. For example, Wikeley and Stables (1999) found that pupils indicated that subject relevance to future jobs influenced their subject option choices and that subjects deemed to be important by the young people were those they needed in order to gain employment. The authors also pointed out that much of this perceived subject usefulness was based on parents’ advice (see section 5.3), so that young people might hold misconceptions over the relevance of subjects to jobs and careers. Adey and Biddulph (2001) concurred with Wikeley and Stables that subject usefulness was a factor in subject choice but that pupils’ understanding of the relative usefulness was ‘limited to direct and naïve reference to forms of employment’ (p. 1).

In addition, Turner’s doctoral thesis (2003) revealed the fact that gender bias was still present in the way in which young people considered career options. He reported that gender specific attitudes to stereotypical jobs and careers appeared to be still evident. ‘Pupils possessed stereotypical attitudes and opinions about the gender suitability of some of the school subjects and particularly certain aspects of the technology curriculum’ (p. 147).
These intrinsic and extrinsic factors are interwoven and it is suggested that if a subject holds no perceived intrinsic worth, in the form of interest in or enjoyment of a subject, or extrinsic worth, in the form of perceived usefulness or value to a future career or job, then a pupil may not choose that subject as one of their options. Stables and Wikeley (1999) observed ‘while pupils may be driven to work hard in the core (compulsory) subjects because of extrinsic/instrumental motivation, where this is lacking intrinsic/integrative motivation must take its place’ (p. 31). The findings also reinforce the need for effective, timely and impartial careers education and guidance to equip young people with the skills and knowledge necessary to make informed subject choices (see chapter 4).

5.2 Young people’s perception of ability

The reviewed literature indicated that young people’s perceived level of prior attainment and their believed competence at a subject plays a part in how they go about choosing their GCSE optional subjects. Lord (2002) concluded that pupils’ believed ability related to their experience and enjoyment of a subject and how confident they felt about the subject. Stables and Wikeley (1999) observed that believed ability at a subject was perceived to be one of the key determinants when deciding on options, and that in the case of MFL considerations of difficulty and ability dominated the reasons for wishing to drop a subject: ‘lack of ability was cited most often as a reason for disliking a subject’ (p. 29). Reiss (2001) agreed that young people’s perception of their ability at a subject influenced their enjoyment, which could in turn effect their decision to study it at Key Stage 4. Davies (2004) also noted that a large majority of pupils rated French as a difficult subject in comparison with the rest of the curriculum and many young people reported not enjoying Modern Foreign Languages. In the ETB study, 79 per cent of the Year 9 pupils claimed that being good at a subject was an important reason for choosing it as an optional subject.

One of the factors that appeared to affect young people’s perception of their ability at a subject was grouping. Ireson et al. (2001) found that attending a school that sets pupils according to their ability had a negative impact on
pupils’ school self-concept, but no effect on their self-esteem. Self-esteem, they argued, is likely to be effected by factors outside school, especially as pupils reach the end of compulsory schooling.

In Year 9, pupils’ general school self-concept was higher in the partially set schools than in the set or mixed ability schools. In Year 11 it is higher in the mixed ability schools. Taken together, this indicates that pupils in schools with less setting have more positive school self-concept, that is, they view themselves in school in a more favourable light than their counterparts in schools with more setting (p. 5).

In this instance, the institutional influence of pupil grouping by prior attainment was seen to influence pupils’ self-concept, with individual factors becoming more important as the young person progressed through secondary schooling.

5.3 Apparent influences

5.3.1 Parental support is valued

Research opinion was divided as to the extent of parental influence on subject choice at Key Stage 4. Three separate research studies (Wikeley and Stables, 1999; Golden et al., 2004 and Turner, 2003) and one systematic literature review (Moon, et al., 2004) suggest that parental interest and support are valued. Adey and Biddulph (2001) and Reiss (2001) believe that the role of parents is more limited and wanes through Key Stage 4.

Wikeley and Stables (1999) reported that parental advice was key to option choices made by young people in Year 9. ‘Parents, followed by teachers, formed the groups to whom the pupils had principally spoken about options, and at some length’ (p. 292). Although Wikeley and Stables (1999) pointed out that: ‘There is some evidence …of options looming somewhat less in their lives in [1997 than in 1984], this is to be expected, given the reduced scope of options post National Curriculum implementation’ nevertheless they felt pupils were taking their option choices seriously. In making these options, they sought advice from parents and teachers and appeared to value the advice from their parents highly: ‘They remained clearer about the advice given by parents, than that given by teachers, and were most likely to cite information

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Sub-scales from the Marsh Self-Description Scales (Marsh, 1990) were used as measures of general school self-concept, self-esteem, mathematics self-concept and verbal self-concept.
from teachers about specific subjects, as the advice they most lacked’. (p. 297). The authors continued by claiming that: ‘schools continue to seem ineffective in giving clear and influential advice on a par with that from home’ (p. 298). The question this raises, however, is the extent to which this parental advice is well informed and appropriate.

There appeared to be some evidence, for instance, that parents advised their girls and boys differently and the authors suggested a possible reason for this:

The girls were more likely to say their parents told them to choose what they enjoy, although there were few other differences in advice. One possible explanation is that parents perceive of their girls as harder-working and more mature, and therefore likely to enjoy subjects that they do well in. The distinction by the boys, on the other hand, between the subjects they liked and those they regarded as important could relate to their parents’ advice to them to choose those subjects that they thought they would need. (p. 297).

Moon et al. (2004) reported, in their Eppi Review, that specific careers advice and guidance interventions had an impact on career knowledge and subject choice, but that parental support was important to the success of those interventions. In other words, it was deemed important that parents supported the decisions made by their offspring on the basis of careers advice and guidance. This support was identified as one of the three important factors which could modify careers advice and guidance, alongside socio-economic background and gender.

The fact that young people considered their parents’ views (and valued their support) was also evident in Golden et al.’s research into the implementation of the Increased Flexibilities Programme. They reported that ‘the majority of students who were interviewed had discussed the options with their parents who had been supportive’ (Golden et al., 2004, p. 40). Turner (2003) agreed that parental influence was significant, but warned of the consequences, saying that some pupils were ‘profoundly influenced by their parents misconceptions and outdated knowledge [of a subject]’ (Turner, 2003, p. 147). Wikeley and Stables (1999) echoed this statement with a warning that the curriculum should be managed ‘so that it prepares pupils to make choices informed by much more than their, and their parents’, preconceptions as to what is needed for specific careers’ (p. 298).
5.3.2 Parental support

In contrast Adey and Biddulph (2001) reported a limited influence of parents in shaping option choice decisions: ‘The limited influence of parents and teachers in shaping pupils’ option choice decisions, is reinforced in this study’ (p. 448). Reiss (2001) supported this point of view, maintaining that, despite the importance placed on science by parents, pupils’ interest ‘gradually waned’ over the years, which could suggest that parental influence is limited in the face of experience during Key Stage 4. The author also suggested that a parent’s view of science (and possibly any subject) is affected by their own memories and experiences of studying the subject when they were at school.

The weight of evidence suggests that parents have some influence on their children when making option choices. However, whilst the extent and duration of this influence is unclear, what is clear is that it is advisable to keep parents well informed as to all the educational and job opportunities open to their children. This would ensure that should children consult their parents they would be given up-to-date and relevant information.

5.4 Teacher influence on subject choice

In addition to the influence exerted over pupils by parents, Wikeley and Stables (1999) reported that teachers were important. This point was supported by Ashworth and Evans (2001) who argued, in their quantitative survey into subject choice at secondary and tertiary level, that teachers can influence young people’s subject choice, if not in an overt way, then through an effect on pupils’ prior attainment and expectations of interest in a subject (reported in Adnett et al., 2003, p. 4). In contrast Adey and Biddulph (2001) found that teachers had little influence on young people’s option choices.

While we have already seen evidence that the institutional values and beliefs about teaching and learning and the methods and styles used to teach a subject are important in determining pupils’ subject choices, the literature also provided limited evidence as to the influence of the quality of teaching on pupils’ subject choices. In their longitudinal study of pupils’ subject option choices, Wikeley and Stables (1999) found that pupils claimed to be influenced not so much by good teaching, but by teachers they liked. Similarly, ‘respectful and positive’ working relationships were observed by
and described to the researchers exploring the provision of alternative learning activities for 14-16 year olds (LSDA, 2003) as something the young people ‘very much valued’. A more definitive statement on the importance of teaching quality in influencing subject choice is provided by Adnett et al. (2003):

Currently, research does not tell us whether the likelihood of a student taking teacher effectiveness into account [when making subject option decisions] varies significantly according to student ability and background or according to the establishment attended (p. 4).

There is evidence, therefore, that pupils respond positively to relationships with teaching staff that empower them and make them feel valued. However, while it seems likely that teacher effectiveness and the standard of teaching do influence young peoples’ option choices, more evidence-based research is needed in this area.

5.5 The influence of other people

There was little evidence of any other group of individuals with a significant influence over Year 9 options decisions. Wikeley and Stables (1999) commented on the fact that young people reported being aware of peers’ decisions, but claimed not to be influenced by them. The current research for ETB has revealed that 56 per cent of the Year 9 pupils said that the way jobs and careers are shown in the media influences them. However the research team found no recent and relevant literature about the influence of role models (including the influence of media-based role models) on decisions made at age 14, although the media was acknowledged as influential in Lord and Harland’s (2000) review of young people’s attitudes to National Curriculum subject. ‘The media appears to influence pupils’ views on subject popularity as well as subject understanding’ (p. 70).

5.6 Preconceptions of subjects

The literature indicates that gender, ethnicity, ability and socio-economic biases exist in young people’s subject and option preferences. Although Wikeley and Stables (1999) suggested that gender preconceptions have
diminished in recent years, specifically between the 1984 cohort in their research and the 1996 cohort, there is still evidence that gender preconceptions are apparent when pupils consider subjects to study.

As can be seen in Chapter 3, gender differences in optional GCSE subjects have been apparent over the last three years. Boys appear to have tended to favour business studies, information technology, geography and P.E, whilst girls seem to have preferred MFL, art and design, English literature, drama and religious studies.

Golden et al. (2004) found that there was an overrepresentation of male pupils studying engineering in their survey sample. OfSTED’s report (2004) on the introduction of new vocational GCSEs stated that ‘The gender imbalances in applied courses are generally the same as those found in similar groups for other subjects, despite the efforts of schools to address this issue. There is no indication that the courses are having any effect on conventional bias in subject options (Ofsted, 2004, p. 30). This is hardly surprising when the Equal Opportunities Commission (2005) observed in their report on tackling gender barriers to better jobs: ‘Britain is failing to provide real opportunity and choice for girls and boys entering work from school and college, despite the interest of many young people and employers in opening up ‘non-traditional’ work to the opposite sex.’ (EOC, 2005, p. 4). They identify four barriers to change, two of which reflect upon the education system, and may find some of their roots in the way in which pupils perceive their optional subjects at Year 9 and indeed at a younger age. The first relates to an education system that, they claim, does not support entry to non-traditional employment via vocational routes, the second identifies an apprenticeship and vocational training system that is said not to support atypical recruits.

Evidence of early gender-stereotypical-subject bias was established by Colley and Comber (2003) who found gender bias in Key Stage 3 pupils, with boys preferring PE, and girls opting for art and drama. They concluded by pointing out that:

Revisiting subject preferences has revealed some changes in the relative popularity of some subjects and these can be linked to some of the changes that have taken place in secondary education over the last decade. However, despite some optimism that gender differences may be diminishing, there is still evidence of their continuing presence, and
Furthermore, Turner (2003) said that pupils reported that staff promoted gender stereotypical bias by setting project briefs designed to appeal to a specific gender. It is suggested that this institutional influence can only further reinforce gender stereotyping present in society and that more could be done in schools to reduce gender stereotyping subjects.

Whilst no evidence was found associating option choices in Year 9 with ethnicity, Clemens et al. (2003) in their customer satisfaction survey of the Connexions Service, found that minority ethnic groups ‘were much more likely than their white counterparts’ to stay in education (post-16) as opposed to getting a job or pursuing work-based learning/training (Clemens et al., 2003, p.39).

There was some evidence of preconceptions and bias in the area of ability and vocational and academic subjects. Although (2004) report found some evidence that it was the lower achieving pupils in academic subjects that were encouraged to take vocational GCSEs, the LSDA (2003) reported that there appeared to be an ‘attitudinal shift’ taking place, with young people apportioning greater parity of esteem to vocational and work-related learning. Indeed ‘some of the young people explained that their peers showed interest in what they were doing and would have liked to have tried some of the options themselves’ (LSDA, 2003, p. 1).

### 5.7 Opportunity awareness

Foskett et al.’s report (2004) on the influence of the school in the decision to participate in learning post-16 highlighted the presence of 6th forms as being influential to the type of advice young people received at 16. The authors commented that the presence of a sixth form could influence pupils’ awareness of alternative provision in their geographical area, of local educational opportunities or of occupational forces such as the local and national labour market. One could surmise that similar influences came into play at age 14, but the report did not present any detailed analysis of the impact of school on young people’s awareness and understanding at the age of 14 years old.
Lack of opportunity awareness is not solely related to the existence or absence of a sixth form, however. Morris et al. (2001), indicated that while careers staff questioned the impartiality of advice given by sixth form staff, FE colleges reported ‘a reduced standard of applications from those [young people] who had not received individual [careers] attention’ (p. 29). Wikeley and Stables (1999) found indications that boys from lower socio-economic groups were more inclined to want to leave education and get a job than any other group whatever type of school they were in, which the authors suggest could indicate a sense of naivety about the types of jobs available.

Morris et al. (1999) pointed out that the enhanced careers information and improved availability of labour market information had impacted on young people in Years 9 and 10. However: ‘their responses still displayed a lack of comprehensive understanding of the options open to them’ (p. 27). They continued by observing that young people may lack the motivation to find out about options themselves, and that: ‘Comprehensive Year 9 options programmes may need to include a greater emphasis on independent research, alongside the inputs from careers professionals, in order to foster the skills necessary in later life’ (p. 27). In addition in order for young people to develop a clearer understanding of the local labour market, and the effect it may or may not have on them, Morris et al. (1999) suggest that they do not only require access to information, but also mediation, in order to facilitate a better awareness of the local job market and their potential role in it.

More contemporary evidence collected by Golden et al. (2004) suggested that pupils participating in the Increased Flexibilities Programme had made an informed decision about taking part, based on good advice and guidance from schools and industry. Clemens et al. (2003) found that Connexions had been influential in helping young people identify the options open to them. Over half of the respondents said Connexions had helped them decide what to do in the next couple of years. Eighty-nine per cent of 13-15 year olds who had used the service reported that Connexions had helped them see ‘all the options available to them’, compared with 86 per cent for those aged 16 or over. The authors suggested ‘this could be because these younger respondents are at the stage where they are thinking about all their options in terms of education, work or training in advance of their post-16 decisions’ (p. 37).
There is little research evidence of any exploration of young people’s awareness, in Year 9, of alternatives open to them, either locally or nationally, at 14 or 16 years old or vocationally or academically.

5.8 Summary

The literature indicated that young people primarily consider their enjoyment of a subject (its intrinsic value) and the usefulness of a subject to possible future jobs or careers (its intrinsic value) when deciding on their Year 9 optional GCSEs. Their perceived ability at a subject is also considered, as are the views of their family and teachers. However, the literature, although indicating that option choices are made as a result of a complex interplay of the above issues and the institutional factors discussed in Chapter 4, has not provided any conclusive evidence of the weight of these aspects. It also yielded little current information on young people’s awareness of the local and national labour markets or the impact of the media on decision-making in Year 9. The implications of these findings and those outlined in Chapter 4 are explored in the next chapter.
6. Key messages and implications

This chapter identifies the key findings that have emerged from the review in relation to the ways in which young people in Year 9 choose their optional subjects for Key Stage 4. As indicated in Chapter 3, there appear to have been some changes in the subject choices that young people make at Key Stage 3 since 1999. Fewer young people, for example, have attempted such subjects as geography, business studies and GCSE information technology, while modern foreign languages (now no longer compulsory) have also shown a decline. However, there seems to have been little change in the major gender differences that have been observed in young people's choice of subjects, with girls significantly more likely to study languages or English literature, for instance, than boys. These gender differences were also observed amongst the young people on the Increased Flexibilities Programme, with young people following hair and beauty, care and childcare and animal care courses being predominantly female, while construction, engineering, motor vehicle maintenance, manufacturing and land-based courses were predominantly male (Golden et al., 2004b). The research that has been reviewed has given little indication as to why these differences exist, although it has provided some insights into the factors that appear to influence the subject decisions that young people make at age 14.

To date, it would appear that the research has focused more on the nature and influence of agency (or individual attributes) on young people's subject option choices than on the part played specifically by structural factors, although there was a body of evidence on the role of careers education and guidance and on the impact of the learning environment on the decisions made. However, while there appeared to be more exploration of the apparent part played by young people's enjoyment of a subject, their perceptions of its usefulness and their perceptions of their own ability, than of the specific role played by parents, teachers and school structures, it was also evident that factors of agency and factors of structure were often interdependent.

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21 To date, there has been no detailed national analysis of subject attempts at GCSE by ethnicity.
6.1 In summary

1. There is evidence in the literature that most Year 9 pupils are motivated to choose their options because they attach **intrinsic value** to specific subject (for example Stables and Wikeley 1999; Lord and Harland 2000). This often manifested itself in a specifically stated enjoyment of a subject, which may be due to an apparent inherent liking of the content, or to structural factors such as, for example, the teaching methods deployed (Adey and Biddulph 2001).

   However, what is not always clear from the research is exactly what young people meant by ‘enjoyment’. Was this due to the content of the subject, the style in which it was taught or its nature - practically-based, vocationally-based or academically-focused - or a combination of content, style and nature? Was it influenced by young people's perceptions of the way in which the subject is assessed at Key Stage 4 and their own preferences for a system that focused on end of stage examinations or a more modular approach through coursework, for example? Were young people’s choices influenced by the particular style of an examination (extended prose essays or shorter structured answers)? Were young people’s views of a subject affected by the nature of coursework - whether it is essentially practical in nature (for example P.E.), or academic in nature (for example geography or history)?

2. Year 9 pupils, when making their choices, also appeared to consider the **extrinsic value** of a subject, mainly in the form of its usefulness to future careers, jobs or training (for example, Wikeley and Stables, 1999; and Lord and Harland 2000; Adey and Biddulph, 2001). There is evidence that, when a subject did not seem to hold intrinsic worth for some young people, they may still have chosen it for its extrinsic worth (Stables and Wikeley 1999). This view of extrinsic worth may itself be influenced by young people's knowledge (or lack of knowledge) of local alternative courses and the labour market or by structural factors, such as the amount of time given to a subject on the timetable (which may influence perceptions of subject importance – Turner, 2003), the careers advice and guidance on offer in school and the advice they received from, for example, their parents and teachers. When young people believe that a subject has neither intrinsic value nor extrinsic value for them, the evidence suggests that they do not make the decision to opt for that subject at Key Stage 4. What is not known, however, is the relative weighting of intrinsic and extrinsic worth in the decision-making process. To what extent do young people choose a subject that they do not enjoy purely because they believe it to be essential for a future course, career or job?

3. A third consideration, apparent in the literature, was a young person’s **self-perception of their ability at a subject** (for example, Stables and Wikeley 1999; Reiss 2001). A belief in one’s ability at a subject was often linked to subject enjoyment (Adey and Biddulph, 2001). It was also evident, however, that perceptions could be influenced by structural factors, such as school policy. For example, there was some evidence that
setting of pupils (by prior attainment) in a subject area influenced their view of their own ability, with consequences on their eventual option choices (Ireson et al., 2001). Moreover, pupils’ perceptions of their ability also appeared to be influenced by the teaching style adopted (Adey and Biddulph, 2001). This raises the question as to what extent young people’s self-perceptions are more influenced by structure and pedagogy than by subject content. For example, where young people respond better to a subject that is taught through the medium of practical activities rather than through desk-based activities, or to subjects taught through group work than through working on their own, will their perception of themselves as good at that subject be due to the subject content or more to the way in which it is being taught?

4. When delivered effectively and appropriately timed, (Moon et al., 2004; Payne 2003 OfSTED 2004, Morris et al., 2001) careers education and guidance appeared to offer considerable scope for equipping young people with the necessary knowledge and skills required to allow them to make informed subject choices. It should be noted, however, that much of the primary research in this area was focused on the role of careers education and guidance in developing careers-related skills, rather than on its specific impact on subject choices at age 14 per se.

5. Literature on the influence of home background on young people's subject choices appeared, largely, to be limited to the impact of socio-economic circumstances (although Davies et al., concluded that there was greater variation between schools than between pupils) and of parental advice. At present, opinion is divided as to how much parents influence their children’s Year 9 options. The weight of evidence suggests that parental influence is indeed important (Wikeley and Stables, 1999; Golden et al., 2004; Turner 2003; and Moon et al., 2004) but Adey and Buddulph 2001 and Reiss 2001, suggest that it is limited, with young people forming their own opinion about the subjects they are studying. However, a number of researchers raised a cautionary note, suggesting that parental views on subjects (or the subjects value for future careers) may be outdated and misconceived (Turner 2003; Wikeley and Stables 1999).

6. Teachers were also identified as an influence on young people (Wikeley and Stables 1999; Ashworth and Evans 2001), but what is not clear is the extent to which pupils responded most to teachers they liked and respected, teachers of the subjects that they enjoyed most, teachers they believed to be good at teaching, or even (as Adnett et al. 2003, suggested) teachers who had a successful record with classes at Key Stage 4.

However, while these elements of individual and structural influence on subject choice have been explored and documented (at least to some extent), there appears to have been little or no research on the specific part played in subject choices at Key Stage 4 by the following:
• The relationship between the curriculum offer at Key Stage 4 and the characteristics (such as size, type, age range and ethos, for example) of the school. The work by Foskett et al, 2004, focused primarily on then influence on post-16 decision-making.

• The combinations of subjects that are available in schools (or indeed the overall pattern of subject combinations that occur). Little is known about the impact (on young people’s subject perceptions and on subject choice) of the ways in which schools present optional choices (for example, through bands, blocks or tiers) and the outcomes of the various systems in place.

• The specific content of individual subjects

• Young people’s perceptions of subject gender (even though the pattern of take-up would suggest that some differentiation exists)

• Young people’s awareness and understanding of occupational factors such as the local and national labour market (Foskett et al., 2004, commented that the presence of a sixth form could influence pupils’ awareness of alternative provision in their geographical area, of local educational opportunities or of occupational forces such as the local and national labour market, but few other recent research studies have explored much in this area).

• The specific role played by young people’s career aspirations

• The extent to which young people understand the potential implications of the decisions they make at age 14 and the extent to which they even consider such decisions to be important

• The extent to which young people feel supported when making decisions at age 14

• The part played by young people’s role models and of media presentations of subjects (and of careers)

• The timing of decisions (although there were suggestions that careers education and guidance should take place in schools at an earlier stage than Year 9)

• Young people’s educational mindsets.

The implications of these findings and of the patchy coverage of research in this field are explored in the following sub-section.

6.2 Emerging messages for research

This review has revealed some of the factors (and the inter-relationship between factors) that underpin young people's decision-making at age 14, particularly in relation to agency and structure. However, it has also
highlighted the relative paucity of research on particular aspects of decision-making in Year 9. Even in some well-documented areas of research (such as young people’s greater likelihood of choosing subjects they enjoy) there are many questions that remain unanswered. For example, what exactly do young people mean by subject enjoyment? As Lord and Harland (2000) posit:

One of the problems … has been how to get at the pupils perspectives on enjoyment, since so much depends on what has been asked of the pupils, and the angle that the researchers have taken, in methodology and reporting. ‘Enjoyment’, ‘like’, ‘favourite’, and ‘positive attitudes’ appear to be synonymous from the researcher point of view- but may not necessarily be seen as such by the pupils (p 51).

According to Lord and Harland (2000) (as other commentators) ‘Motivation is linked by both pupils and researchers to enjoyment, relevance, accessibility, success and achievement’. If this link between enjoyment and motivation is accepted, then it would appear crucial to develop a better understanding of aspects such as subject enjoyment, in order to reduce the possibility of disaffection and potential disengagement amongst young people and to increase the likelihood that young people remain stimulated by the experience of learning. Research may need to explore the meaning that young people attach to the concept of enjoyment – whether it reflects an affinity with content, with pedagogy, with assessment mechanisms, with teacher style (or personality) – or whether enjoyment of any one particular subject area may be, in part, also a function of the range and variety of other subjects that the young person studies.

Secondly, while the explicit value attached to a subject may play a part in young people's decision-making, it should also be recognised that this value may be accorded artificially (perhaps through the status accorded by its place on the timetable or through - possibly outdated - information presented by teachers or parents). Moreover, where young people choose subjects solely on the basis of explicit rather than implicit value, there is a question as to the extent to which they remain motivated in the long term. During the longitudinal evaluation of Aimhigher: Excellence Challenge, for example, it was found that young people with positive attitudes to higher education, tended to be those who did not have an instrumental view of education, while the highest level of drop-out was observed amongst those who did not enjoy, and were not motivated by their chosen subjects or course (Morris et al. forthcoming). Researchers also found a strong statistical association between
positive attitudes to learning and young people’s performance at the end of Key Stage 4 in EiC areas (Morris and Rutt, 2004).

The review also highlighted the role played by young people's positive perceptions of their ability in a subject in their eventual subject choices. Less is known about how these positive perceptions arise and particularly about the role played by teacher assessment and feedback in the development of those perceptions. Furthermore, little is known about the ways in which young people balance this perception of their ability with their ‘enjoyment’ of the subject or their belief in its potential future value.

It would appear to be important therefore, to develop a greater degree of understanding of:

- the ways in which young people attach values to subjects and the interaction between implicit and explicit values
- the ways in which schools present option information to young people and the importance they attach to the decision-making process (which in turn may influence the extent to which young people actively consider the choices they make)
- the relationship between a school’s ethos, type and so forth and the ways in which it presents such information.

Fourthly, the review identified some indication of the role played by parents in young people’s decision-making. Far less appears to be known about the influence of other family members such as, for example, older siblings, or of other members of the wider community, or of the influence of the ways in which subjects and specific careers are portrayed in visual, oral and written media. Greater understanding of the role played by these potential spheres of influence would be helpful.

Through focusing specifically on obtaining the voice of the young people, the current research programme currently being undertaken by the NFER, seeks to shed light on some of these topics. In particular, it will explore the specific context in which young people make decisions, the process by which they believe they are making the decisions and the importance they accord to this process. The research will also examine the ways in which schools present Key Stage 4 option subjects to young people, the extent to which the young people feel they are empowered to make subject decision and the subject
combinations that they decide upon. There may be elements, such as what is understood by the term ‘enjoyment’, or the wider value that young people attach to different curriculum areas, which may benefit from further research.
References

* indicates the twenty research documents reviewed in-depth


Appendix 1  Research questions

Proposed Research Questions

- What are the factors and influences that play a part in determining choice of subjects to be studies at KS4? Why do pupils choose the subjects that they do, and what is it that is important in deciding upon those subjects? What is it about certain subjects that make them not choose to do them? What would help them consider a wider/more balanced choices of subjects?

- Explore the evidence on both external influences or structures e.g. school/teachers/options available/timetabling/peers/CEG/parents/other family members and also the evidence on internal factors such as perceptions, attitudes, world-views, likes and dislikes, ambitions, capabilities, attainment etc.

Structural criteria

- The extent to which young people’s decisions about post-14 pathways appeared to be determined or proscribed by the available curriculum offer (pre- and post-16) – how ‘real’ is subject choice at age 14? To what extent does subject choice appear to be determined by, or related to, factors such as school size, structure (including the existence of a school sixth form) or location?

- What influence does quality of teaching have on future choice. E.g. can a good teacher influence a pupil to take their subject. Do specialist teachers tend to have a positive effect on the perception or uptake of a course?

- How much does the content and structure of a subject influence choice e.g. at 14 are pupils influenced by amount of coursework, number of tests, the syllabus at GCSE etc.

- Broad profiles of the subject combinations (including the balance between academic and vocational subjects) that appear to be most common. Is there any indication that the choices that young people make (or are able to make) have moved away from (or towards) the pattern of the broad and balanced curriculum envisaged at the introduction of the National Curriculum

- What does the literature indicate about a) the profile of young people who tend towards particular academic or vocational routes (and any ethnic or gender-stereo-typical options made) and b) any changes in that profile since the introduction of the disapplication regulations and of the Increased Flexibility Programme?

- The extent to which advice, guidance and support about post-14 options is available to individuals, pre-14. Is there an indication of the extent to
which it is provided formally or informally? By whom? What do the pupils think of that support? What would pupils like to see?

- What does previous research evidence say about how young people could be best equipped with the skills and knowledge to make informed decisions at 14? Where can policy have most leverage over the helping them make ‘good’ decisions?

**Individual criteria**

- Young people’s views of subject areas, including:
  - subject enjoyment
  - subject difficulty (perceived)
  - subject ‘gender’ (are some subjects seen by pupils as primarily boys’ subjects or girls’ subjects?)
  - subject ‘capital’ (young people’s perceptions of the credibility or value of the subject in their local community – including their peers and their parents - in the wider world and in potential future career pathways)
  - the teaching environment within the subject area (including subject pedagogy and the influence of the teacher or department in subject choice)

- Young people’s level of prior attainment in subject areas and their perceptions of their own subject competence. What role does self-awareness of skills and abilities play in subject choice (and how informed is that self-awareness)?

- How well supported do Yr9s feel in deciding which subjects to take? Would they have liked more or better quality advice and guidance? Who do they turn to for advice and guidance? How well informed is that guidance likely to be?

- Young people’s career aspirations and the role that these play in the decision-making at 13+. To what extent are these aspirations drivers in the decision-making process?

- Young people’s awareness and understanding of local educational opportunities; including the impact of options made at age 13 on the potential for choice post-16 (or even post-18) options.

- Young people’s awareness and understanding of occupational factors such as the local and national labour market. Do they react to demands for particular skills/qualifications by employers? Do they consider the need to develop their ‘employability’ in the labour market?

- Family circumstances, including the impact of ‘significant others’; do young people see parents, siblings and other relatives as part of the choice-making processes? Is there any other? Is there any other supporting evidence to suggest that they play a role even if not acknowledged by young people?

- Social and educational circumstances, including the impact of peers, teachers, mentors; do young people see such people as playing a part in
decision-making processes? Is there any other supporting evidence to suggest that they play a role even if not acknowledged by young people?

- What is the effect of their (or their parent’s) socio-economic status? Does it have an effect upon their aspirations and hence choices at age 14?

- Young people’s role models. To what extent does the literature suggest that decisions at 14 are influenced by such role models (including the influence of media-based role models)?

- The possibility of change or flexibility in existing post-13 pathways; what does the evidence suggest (if anything) about the extent to which young people choose to change post-13 trajectories, or have been able to change post-13 trajectories, once choices have been made at Key Stage 3?

- The timing of decisions. To what extent does the literature suggest that young people’s decisions may be fixed prior to the time in which they make their option choices? any sense of volatility in intentions? What factors are most critical in mind changes? To what extent does it suggest that young people are amenable to reasoned argument (or are swayed by charismatic subject or career presentations)?

- Any evidence on young people’s educational mindsets and personal motivations for using school and qualifications as a means to achieve their ambitions, or whether they consider that education does not play a role in their plans for the future? To what extent do they plan for the future?
Appendix 2  Keywords

Search Strategy

Search strategies for all databases were developed by using terms from the relevant thesauri, where these were available, in combination with free-text searching. The keywords used in the searches, together with brief descriptions of each of the databases searched, are outlined below. Throughout, (ft) denotes free-text search terms, and * indicates that terms were truncated to account for plurals and variant forms.

British Education Index (BEI)

BEI provides bibliographic references to 350 British and selected European English-language periodicals in the field of education and training, plus developing coverage of national report and conference literature.

#1 Adolescent Attitudes
#2 Expectation*
#3 Expectations of Students
#4 Mindset* (ft)
#5 Opinions
#6 Perceptions
#7 Perspective
#8 Pupil Attitudes
#9 Pupil Experiences
#10 Pupil Feedback
#11 Pupil Interests
#12 Pupil Motivation
#13 Reflective Experience* (ft)
#14 Student Attitudes
#15 Student Experiences
#16 Student Feedback
#17 Student Interests
#18 Student Motivation
#19 Views
#20 #1 OR #2 OR #3 … #19
#21 Adolescents
#22 Key Stage 3 (ft)
#23 Secondary Education
#24 Secondary School Pupils
#25 Secondary Schools
#26 Year 9 (ft)
#77 Chemistry Education
#78 Citizenship
#79 Citizenship Education
#80 Dance Education
#81 Design Education
#82 Drama Education
#83 Ecology Education
#84 Employment Training (ft)
#85 Engineering (ft)
#86 English
#87 English Literature
#88 English Studies
#89 English Studies Curriculum
#90 Environmental Education
#91 Foundation Subjects
#92 French
#93 French Studies
#94 General Certificate of Secondary Education
#95 General Science
#96 Geography
#97 Geography Education
#98 Geology Education
#99 Geometry Education
#100 German
#101 German Studies
#102 Health and Social Care (ft)
#103 History
#104 History Studies
#105 Increased Flexibility Programme (ft)
#106 Information Technology
#107 ICT (ft)
#108 Information and Communications Technology (ft)
#109 Intermediate GNVQ (ft)
#110 Italian
#111 Italian Studies
#112 Languages
#113 Leisure and Tourism (ft)
#114 Lifelong Learning
#115 Literature Studies
#116 Manufacturing (ft)
#117 Mathematics
#118 Mathematics Curriculum
#119 Mathematics Education
#120 Modern Language Curriculum
#121 Modern Language Studies
#122 Modern Languages
#123 Modern Languages Studies
#124 Modern Mathematics
#125 Music
#126 Music Curriculum
British Education Internet Resource Catalogue (BEIRC)

BEIRC provides descriptions and hyperlinks for evaluated internet resources within an indexed database. The collection aims to list and describe significant information resources and services specifically relevant to the study, practice and administration of education at a professional level.

#1 Adolescent Attitudes
#2 Expectation*
#3 Expectations of Students
#4 Key Stage 3 (ft)
#5 Mindset* (ft)
#6 Opinions
#7 Perceptions
#8 Perspective
#9 Pupil Attitudes

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Current Educational Research in the United Kingdom (CERUK)

CERUK, which is sponsored by the National Foundation for Educational Research and the Department for Education and Skills and supported by the Eppi-Centre, covers current and recently completed research in education and related fields.
#30 Parent Influence
#31 Peer Influence
#32 Sixth Form Colleges
#33 Sixth Form Education
#34 Subject Choice
#35 Teacher Influence
#36 Teaching Process
#37 Vocational GCSE
#38 #23 OR #24 OR #25 … #37
#39 #21 AND #38

**Applied Social Sciences Index and Abstracts (ASSIA)**

ASSIA is an index of articles from over 600 international English language social science journals. The database provides unique coverage of special educational and developmental aspects of children.
ChildData

ChildData is produced by the National Children’s Bureau. It encompasses four information databases: bibliographic information on books, reports and journal articles (including some full text access); directory information on more than 3,000 UK and international organisations concerned with children; Children in the News, an index to press coverage of children’s issues since early 1996; and an indexed guide to conferences and events.

#1 Attitudes
#2 Children’s Views
#3 Views
#4 #1 OR #2 OR #3
#5 secondary (ft)
#6 #4 AND #5
#7 adolescent* (ft)
#8 #4 AND #7
#9 young people (ft)
#10 #4 AND #9
#11 year 9 (ft)
#12 #4 AND #11
#13 key stage 3 (ft)
#14 #4 AND #13
#15 option* (ft)
#16 #4 AND #15
#17 vocational (ft)
#18 #4 AND #17
#19 work based (ft)
#20 #4 AND #19
#21 work related (ft)
#22 #4 AND #21

System for Information on Grey Literature in Europe (SIGLE)

SIGLE is a bibliographic database covering European non-conventional (grey) literature in the fields of humanities, social sciences, pure and applied natural sciences and technology, and economics. All terms were searched free-text.

#1 attitude*
#2 choice*
#3 expectation*
#4 experience*
#5 opinion*
#6 perception*
#7 perspective*
#8 feedback
#9 interest*
Regard

Regard is an online database containing information on social science research funded by the Economic and Social Research Council (ESRC). It contains over 75,000 records, dating from the mid-1980s to the present, describing both research to be undertaken under ESRC awards, and books, journal articles and conference papers published as a result of the funded research.
The British Library’s Inside database was begun in 1993 and now includes 20,000 current journal titles and 100,000 conference proceedings that can be searched to article title level, amounting to over 20 million individual articles. It provides extensive coverage of science, technology, medicine, engineering, business, law, finance and the humanities.
### Appendix 3 Framework for reviewing relevant research

<table>
<thead>
<tr>
<th><strong>Reference</strong></th>
<th>Full reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category Descriptor</strong></td>
<td>The main focus of the research (whether on young people’s choice of subjects or pathways or on the impact of support mechanisms or other focus) and the key questions that it addresses (generic, specific, theoretical or practical).</td>
</tr>
<tr>
<td><strong>Date of review</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>National, regional or local</td>
</tr>
<tr>
<td><strong>Age of learners</strong></td>
<td>Secondary/post-16</td>
</tr>
<tr>
<td><strong>Research aims</strong></td>
<td>A summary of the aims of the research study as reported by the researcher in their paper</td>
</tr>
<tr>
<td><strong>Project details</strong></td>
<td>Name and funding details of any broader research project (if mentioned)</td>
</tr>
<tr>
<td><strong>Conceptual/theoretical approach</strong></td>
<td>Summary of the key conceptual and/or theoretical assumptions that underpin the work reported (but only in so far as these are explicated and acknowledged by the author)</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>Details of sample population, sizes, sample characteristics and selection procedures and rationale</td>
</tr>
<tr>
<td><strong>Methods (data collection and analysis)</strong></td>
<td>Summarised details of the reported procedures of data collection and of data analysis</td>
</tr>
<tr>
<td><strong>Main findings related to the key research questions posed for this review</strong></td>
<td>Summary of the study’s main findings as reported by the author(s) of the research report</td>
</tr>
<tr>
<td><strong>Conclusions and implications (author’s view)</strong></td>
<td>Summary of the main conclusions, key implications and lessons that the original researcher(s) drew from the study</td>
</tr>
<tr>
<td><strong>Reviewer’s comments</strong></td>
<td>Reviewer’s view of the key implications and lessons emerging from the study in relation to the key research questions being asked, including an assessment of the validity and reliability of the research findings, and any strengths and weaknesses.</td>
</tr>
<tr>
<td><strong>Links</strong></td>
<td>Brief notes about any points of commonality or divergence between this and other studies in the review e.g. similar or very different findings on a similar topic, methodological links or conflicts etc.</td>
</tr>
</tbody>
</table>
## Appendix 4  The scope of studies in the in-depth review

<table>
<thead>
<tr>
<th>Study</th>
<th>Source</th>
<th>Scope</th>
<th>Aim</th>
<th>Key results</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adey and Biddulph</td>
<td>Journal article</td>
<td>Regional (East Midlands)</td>
<td>Inquiry into the factors influencing pupils’ uptake of history and geography at GCSE.</td>
<td>Large discrepancy between number of students that ‘enjoy’ geography and history at KS3 and the number who opt to study them at GCSE. In both subjects pupils are anticipating a lot of reading and writing. Both subject content and the methods used to teach a subject were important elements contributing to influencing pupils’ subject enjoyment.</td>
<td>Mixed methodology. A questionnaire survey of 1406 Year 9 pupils in ten East Midlands comprehensive schools was undertaken during the summer term 1999. A questionnaire survey of teachers within these schools was also conducted in addition to a brief literature review.</td>
</tr>
<tr>
<td>Adnett et al. (2003)</td>
<td>BERA paper (based on report:</td>
<td>National</td>
<td>The study’s focus is on the variance in subject selection in history and geography that can be attributed directly to schools, independent of pupil characteristics.</td>
<td>The ratio of enrolments in GCSE geography to enrolments in GCSE history varies considerably by school. Variance appears unexplainable when considering only pupil background; other factors are in play.</td>
<td>Mixed methodology. Brief literature review followed by quantitative analysis employing series of statistical models to investigate relationships between pupil enrolment at subject level, pupil characteristics and previous attainment data at subject level. Sample consists of 400 schools drawn from the YELLIS and ALIS databases. The data cover the period 1994-2002 for students aged 16 (GCSE examinations) and 18 (A Level examinations).</td>
</tr>
<tr>
<td><strong>Clemens et al. (2003)</strong></td>
<td><strong>DfES research report</strong></td>
<td>National</td>
<td>To assess the experience of young peoples who have used the Connexions Service and to establish their views of the Service; to look at whether the Connexions Service is meeting the needs of young people; and to inform the ongoing development of the whole Connexions Service</td>
<td>Perceptions of Connexions were positive: the majority of young people who has used the service believed that it had a lot to offer (90 per cent) and that it helped young people to see what options were available.</td>
<td>Quantitative samples of young people aged 13-19 who had contact with Connexions were drawn from the databases held by the 15 Phase 1 Partnerships. In total 16, 120 respondents surveyed: 3224 interviews with young people in receipt of intensive or Category 1 support; 4191 interviews with young people in receipt of intermediate or Category 2 support; 8700 interviews with young people in receipt of minimum intervention or Category 3 support. Three per cent of respondents were aged 13-14 (p. 10).</td>
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<td><strong>Colley and Comber (2003)</strong></td>
<td><strong>Journal article</strong></td>
<td>Research carried out in five secondary schools in England (all of different types).</td>
<td>To determine whether there was evidence of greater gender stereotyping of some subjects in the 15-16 age group than the 11-12 age group and whether changes in the relative popularity of some subjects have occurred in the two age groups.</td>
<td>Despite some optimism that gender differences may be diminishing, there is still evidence of their continuing presence, and this can only be attributed to a broader and more enduring influence from societal gender roles and the beliefs associated with them (p.66).</td>
<td>Quantitative sample of 218 male and 144 female students aged 11-12 years and 300 male and 296 female students aged 15 to 16 years from. Data collected in conjunction with larger data set on computer use and attitudes. Students were asked to rank subjects in order of preference.</td>
</tr>
<tr>
<td><strong>Davies, B. (2004)</strong></td>
<td><strong>Journal article</strong></td>
<td>Local (findings from one comprehensive school)</td>
<td>To explore and compare the perceptions and attitudes of Year 7 and Year 10 pupils to MFL, and to compare</td>
<td>Findings suggest that the documented gender gap in attitude and performance at KS4 is not located exclusively in KS4 but</td>
<td>Mixed methodology of small-scale questionnaire and informal interviews. Questionnaire administered to</td>
</tr>
<tr>
<td>Reference</td>
<td>Type</td>
<td>Nationality</td>
<td>Purpose</td>
<td>Methods</td>
<td>Findings</td>
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<tr>
<td>Davies, P. <em>et al.</em> (2004)</td>
<td>BERA paper (based on report: DAVIES, P., ADNETT, N. and COE, R. (2004). <em>Within School Competition and Pupil Achievement</em>. Swindon: ESRC. The final report was not available to the research team at the time of writing)</td>
<td>National</td>
<td>To explore the extent and determinants of within-school choice using cross-sectional data drawn from the YELLIS database.</td>
<td>The adoption of a National Curriculum has not eliminated large inter-school differences in the schooling experience of young people (p15). The obvious school level variables fail to explain more than a small part of the variation among schools; the authors have found large variation among schools, but it is largely unexplained (p.17).</td>
<td>Quantitative cross-sectional pupil-level analysis of a large data set (over 100,000 pupils aged 16) from 664 schools for the year 1998. Sample drawn from the databases of schools participating in the YELLIS (Year Eleven Information System) data information service.</td>
</tr>
<tr>
<td>Golden <em>et al.</em> (2004)</td>
<td>DfES research report</td>
<td>National</td>
<td>To assess the effectiveness and cost effectiveness of the implementation of IFP; to evaluate the extent to which the IFP has fulfilled its national aims, objectives and targets; and to assess Respondents offered some reflective insights into decisions made in Year 9. Evidence suggests that there are benefits to working away from school: young people valued and responded to experience of learning in different</td>
<td>Mixed methodology. Range of research methods have been used (baseline data collection exercises; baseline and follow-up surveys of representative sample of around 12,000 students, 450 schools and 130</td>
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<tr>
<td>Source</td>
<td>Type</td>
<td>Region</td>
<td>Purpose</td>
<td>Data Description</td>
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<td>Ireson et al. (2001)</td>
<td>Report to the Nuffield Foundation</td>
<td>Selected regions ‘spreading from London and Southern counties of England to East Anglia and South Yorkshire’ (p.1)</td>
<td>To explore relationships between ability grouping and academic, social and personal outcomes for pupils in year 11; and to examine how different ability grouping systems in the secondary school impact on intentions to continue formal education in the short and long term and affect career aspirations for pupils at the end of compulsory schooling.</td>
<td>Pupils' self concept and their relationship with school are affected by the type of school attended in Key Stage 3 and to a lesser extent in Key Stage 4. Being in a school with more ability grouping has a negative impact on pupils' general school self-concept but no effect on their self-esteem. Self-esteem is likely to be influenced by factors outside school, especially as pupils reach the end of compulsory schooling. By the end of Key Stage 4, there are no gender differences in self-esteem, but higher attainment is linked to higher self-esteem and self-concept. Even though girls have a better relationship with school, and achieve higher grades at GCSE, they have less positive academic self-perceptions than boys.</td>
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<tr>
<td>LSDA (2003)</td>
<td>Research report</td>
<td>Regional (East)</td>
<td>To determine the modes and environments at this stage in their school career; positive achievements of students who participated; young people benefited from personal and social development.</td>
<td>providers of vocational courses; collections of attendance and attainment data; case studies in nine partnerships in spring 2003 and spring 2004). Data includes interviews with 45 Year 11 students in 16 schools across the nine partnerships.</td>
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<td>Quantitative sample comprised 45 mixed secondary comprehensive schools in England, representing three levels of ability grouping in the lower school (Years 7 to 9) with 15 schools in each level. The effects of setting on pupils' attainment at the end of year 11 were explored using multi-level modelling.</td>
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Midlands) level of alternative educational provision for young people aged 14-16 years. In addition, the project sought to gain views as to the provision’s effectiveness from young people and practitioners involved in the planning and delivery of programmes.

There are many models of 14-16 provision in place, with most planners planning in light of the Increased Flexibilities Programme (p.1). Alternative provision activities had promoted vocational and work-related routes, with young people giving them greater parity of esteem to more conventional academic routes. Young people enjoyed ‘college life’ and were generally happy with options on offer.

80 young people from across the East Midlands were interviewed to gain their views and opinions as Year 10 and 11 learners (p.8).

<table>
<thead>
<tr>
<th>Moon et al. (2004)</th>
<th>Literature review</th>
<th>National</th>
<th>Overall aim was to ascertain the role and impact of careers education and guidance (CEG) on young people’s transitions from KS3 to KS4.</th>
<th>Existing evidence suggests that CEG can have a positive impact on the transition process for young people, if delivered appropriately by adequately trained staff across the Key Stages (p.55)</th>
<th>Literature review. Review process highly systematic and comprised distinct phases: searching, screening, keywording and data-extracting. Initial search yielded 6,766 studies. Only 10 studies met all inclusion criteria. Ten studies included – 3 from USA, 4 from England, 1 from UK, 1 from Wales and 1 from Scotland.</th>
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<tr>
<td>Morris et al. (2001)</td>
<td>DfES research report</td>
<td>National</td>
<td>To provide information on the extent, type and quality of careers education and guidance being delivered in schools and careers services; to suggest how schools and careers services</td>
<td>Schools’ internal support strategies designed to meet young people’s individual guidance and other needs remain highly variable (p.54). Few schools focused on students’ vocational and guidance needs and instead focused on social</td>
<td>Mixed methodology: postal survey (528 schools); careers service chief executives (37); in-depth case studies (28 schools including group discussions with 164 Year 11 students); operations managers</td>
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<tr>
<td>Author(s)</td>
<td>Report Type</td>
<td>Area of Study</td>
<td>Methodology</td>
<td>Findings</td>
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<td>Morris et al. (1999b)</td>
<td>NFER report</td>
<td>Research sought to identify: main changes in CEG provision since 1995; extent of change over time in young people’s careers related skills; influence of different types of school and provision on both changes in skills and rates of change in skills; relationship between careers-related outcomes and specific careers education and guidance activities.</td>
<td>Quantitative methodology. Survey data on careers-related experiences, attitudes and understanding of 7,562 students who had recently completed years 9 and 10 was added to the data already available from the 5,822 young people who completed the 1995 baseline survey in 30 schools.</td>
<td>Schools need to be more interactive with careers service. Young people’s career related skills improved but not necessarily positive about guidance. There needs to be better balance between provision of professional help and guidance and the promotion of independent decision-making skills. Different genders use careers services in different ways – this should be recognised and worked with.</td>
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<td>Morris (2004)</td>
<td>Report for the National Audit Office</td>
<td>To obtain the views of schools on: whether the availability and accessibility of careers guidance in schools has changed since the implementation of Connexions; and the quality and provision of services provided by Connexions.</td>
<td>Quantitative sample of 1000 secondary schools surveyed from all 9 government regions and covering 47 Connexions regions. The survey was completed by the coordinator for advice and guidance in each school and achieved a 58% response rate.</td>
<td>The author’s analysis suggests that there is still a significant degree of polarisation in terms of the range and quality of access to professional guidance available to young people and some clear differences in the capacity of individual schools to provide appropriate guidance for all of their studies.</td>
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<td>Nelson et al. (2001)</td>
<td>DfES research report</td>
<td>Research sought to: establish extent to which schools and their external partners were very positive about the</td>
<td>Mixed methodology. Research consisted of surveys and case</td>
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schools had used (and might continue to use) the regulations to introduce extended work-related learning, and their reasons for doing so; and to ascertain the characteristics of young people for whom schools had decided to introduce extended work-related learning and the strategies they had adopted for identifying, targeting and supporting students.

enhanced flexibility that the regulations had provided, the extended work related learning programmes that they had been able to put in place and the benefits these had brought about for the participating students and the wider curriculum. Conditions for successful student outcomes included sufficient time for student induction and preparation, careful time-tabling and a matching of work placements to students’ career aspirations and specific needs.

studies over three phases. Phase 1 – exploratory telephone interviews with 50 schools who were disapplying national curriculum subjects. Phase 2 – postal and follow-up survey with 100 schools disapplying. Phase 3 – involved 2 detailed case-study visits to 20 schools. During visits interviews were conducted with 96 teachers, 304 students and 34 external partners.


Although most aspects of advice about key stage 4 options given in Year 9 are at least satisfactory, many pupils and their teachers are unclear about post-16 routes of progression from these new GCSE courses (p. 4). New vocational GCSEs got off to a satisfactory start, with some high points and some low points. They are supporting the government’s intentions to diversify the curriculum at KS 4 and make it more vocationally relevant to pupils. There are grounds for optimism about the future of these courses...(p. 3)

Qualitative methodology. Discussions held with key members of staff responsible for developing and teaching new GCSEs in vocational subjects in 133 secondary schools. 195 lessons were observed and discussions were conducted with ‘several’ pupils in Years 10 and 11. Observations were also conducted of training sessions by 3 awarding bodies.

Reiss (2001) Journal article Local The project aims to shed light on the experiences of employers of employers in practical work based curricula.

The research was ethnographic.
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<th>Study</th>
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<td>(ethnographic study in one school)</td>
<td>light on two main questions connected with the trend of diminishing popularity of science in the secondary phase (Years 7-11): 1) How do pupils experience school science lessons? 2) Why do some pupils enjoy science and do well in it, while others don’t?</td>
<td>popular and pupils often made connexions between content of their science lessons and their out of school experiences (p. 35). As the years went by, enthusiasm gradually waned, in part because the pupils didn’t find their science lessons relevant enough (p. 35). School science education can only succeed when pupils believe that the science they are being taught is of personal worth to themselves (p. 37)</td>
<td>and conducted in a non-selective mixed-state school near Cambridge. Data was collected primarily though observation and interviews over a five year period. The author followed one cohort from their first lesson as 11 year olds at the beginning of Year 7 to their last lesson as 16 year olds at the end of Year 11. In total the author sat in on 563 50-minute lessons and carried out 225 interviews with pupils, parents and teachers.</td>
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<td>Stables and Wikeley (1999)</td>
<td>Journal article</td>
<td>Regional (West of England)</td>
<td>To ascertain whether changes in curriculum and teaching approaches (since the authors’ first study), due largely to the advent of the GCSE in the late 1980s, has increased pupils’ interests in modern languages.</td>
<td>Perception of subject importance relates strongly to perceived usefulness for careers. Many pupils make naïve connections between specific subjects and careers (resulting in comments such as “There’s no point in doing RE unless you’re going to be a vicar”). MFLs included in list of subjects Year 9 pupils would most like to drop. Considerations of difficulty and ability dominated the reasons for wishing to drop subjects. Authors indicate that the teachers taking MFLs mattered most to students with regard to whether they wanted to take them, than to</td>
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<td>Mixed methodology. The project replicates a study carried out by one of the authors in 1984/5. In both 1984 and 1996, a sample of Year 9 cohorts from ten West of England comprehensive schools completed a short questionnaire, inviting them to respond to all their school subjects in terms of liking and perceived importance. Later in each year, stratified sample of 144 pupils from four schools were invited to interview to discuss their reasons for subject enjoyment and perceptions of</td>
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<td>Turner (2003)</td>
<td>Unpublished thesis</td>
<td>Local (one case-study school)</td>
<td>To investigate the attitudes of high school pupils to technology. More specifically the main aims of the study were to examine: the attitudes of pupils to technology; the pupils’ perceptions of the nature and importance of design and technology as a subject; the relationship between gender and pupils’ choice of design and technology options; and the pupils’ attitudes to design and technology as a basis for a career</td>
<td>Subjects identified by the young people as being vocationally relevant to future career pathways included: English (92%), Mathematics (91.3%), IT (78%), Science (77.3%), Geography (60%) and French (57.3%) (p. 98). Pupils possessed ‘stereotypical attitudes and opinions about the gender suitability of some of the school subjects and particularly certain aspects of the technology curriculum’ (p. 147).</td>
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<td>Unwin et al. (2004)</td>
<td>DfES research report</td>
<td>(Inter)national – Although the policy context for the literature review is England (and relevant to the UK), literature</td>
<td>The report provides results from a review of the literature on the impact of vocational qualifications (VQs). It addresses four key questions: 1) What drives learner choice? 2) What do we know about the nature and extent of the market for The research-based literature on VQs is thin, reflecting the invisibility of vocational education and the work-based pathways more generally. Where they do exist, studies of vocational education and vocational learning often do not include any focus on VQs, and, hence, the UK lacks a substantive</td>
<td>Literature review. The number of articles reviewed is not clear (perhaps over 200) although they are from a variety of sources including primary studies (research-led studies with an empirical base); secondary studies (analyses of data sets such as the Youth</td>
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on VQ provision in other countries was reviewed to see if it could ‘shed light on the UK situation’.

3) How do different delivery mechanisms impact on the effectiveness of VQs? 4) What does the literature tell us about the wider impact of VQs?

evidence base on VQs.

Cohort Study); conceptual studies; academic critiques; and policy documents. Interviews (by telephone, email and face-to-face) were conducted with key informants from organisations with a stake in VQs.

| Wikeley and Stables (1999) | Journal article | Regional (West of England) | To elicit the degree of young people’s subject liking; to establish their perceptions of relative subject importance; and to establish their approaches to subject option choices | Pupils see subjects in terms of usefulness for jobs and not relevance to life at that time. The majority are reported to be naïve about the linkage between school subjects and careers and the availability of jobs without post-16 education. | Quantitative methodology. This ESRC funded project builds on Stable’s earlier work on approaches to subject option choices. In both projects an entire population of Year 9 pupils in 10 non-selective comprehensives completed a simple questionnaire. |