ABSTRACT
        The career guidance process uses a variety of frameworks and
constructs to describe the world of work and to help individuals relate to
it. As the world of work changes, these constructs require fundamental
review. The constructs and frameworks currently used to describe work are of
five types. Employment constructs describe occupation, level, sector, and
contractual mode of employment. Employers' constructs have been developed to
differentiate internally between jobs. Employer-developed classifications are
as follows: job descriptions and titles, job analysis, job evaluation, grade
level and organizational location, and new frameworks. Classifications
linking individual characteristics to opportunities include interests,
values, and abilities and skills. Skills, competencies, and qualifications
are used to describe the requirements of work. Hybrid and multidimensional
frameworks are usually pragmatic combinations of other frameworks. A
simplified model of the relationship between some constructs and career
decision making highlights the following: different kinds of career decision,
only some involving a fundamental choice of occupation; need to relate work
preferences to employers' requirements and labor market opportunities; and
need to consider the future implications of choice. Within career guidance,
information needs vary by client group, type of decision, and guidance
purposes. Some of the hybrid and multidimensional models and those emerging
from employers come closer to linking work with careers. (YLB)

NICEC

Briefing

Constructs of Work Used in Career Guidance

NICEC

The National Institute for Careers Education and Counselling
is a network organisation initiated and supported by CRAC.
It conducts applied research and development work related to
guidance in educational institutions and in work and community
settings. Its aim is to develop theory, inform policy and enhance
practice through staff development, organisation development,
curriculum development, consultancy and research.

CRAC

The Careers Research and Advisory Centre is a registered
educational charity and independent development agency
founded in 1964. Its education and training programmes,
publications and sponsored projects provide links between
the worlds of education and employment. CRAC has
sponsored NICEC since 1975.

Sheraton House, Castle Park, Cambridge CB3 0AX
Tel: 01223-460277   Fax: 01223-311708
E-mail: enquiries@crac.org.uk

DfEE

The career guidance process uses a variety of frameworks
and constructs to describe the world of work and to help
individuals relate themselves to it. But the world of work
is changing, with major shifts in occupational and sectoral
balance, more varied forms of work in a more flexible
labour market, and more fluid organisational structures
and blurring of job boundaries. This may mean that the
constructs and frameworks require fundamental review.

This Briefing:

■ reviews the constructs and frameworks currently
used to define work;

■ examines the use of such constructs in career
guidance and career decision-making;

■ identifies areas requiring further investigation.

The Briefing is based on a DfEE-funded project which
included consultations with many experts through
interviews and at a residential event. It has been written
by Wendy Hirsh (NICEC Fellow), Jenny Kidd (Birkbeck
College) and Tony Watts (NICEC Director).

CONSTRUCTS OF WORK USED IN CAREER GUIDANCE

CURRENT CONSTRUCTS AND FRAMEWORKS OF WORK

The constructs and frameworks currently used to describe work are of five main types:

■ *Employment constructs* – used to describe occupation, level, sector and contractual mode of employment.

■ *Employers' constructs* – developed to differentiate internally between jobs.

■ *Classifications linking individual characteristics to opportunities* – interests, values, and abilities and skills.

■ *Skills, competences and qualifications* – used to describe the requirements of work.

■ *Hybrid and multi-dimensional frameworks* – usually pragmatic combinations of other frameworks.

EMPLOYMENT CONSTRUCTS

Job titles and occupations. A job title acts as a shorthand for a typical set of activities normally expected in that job, and therefore for the skills it requires. An occupation describes a group of similar jobs across organisational structures. In the UK, the Standard Occupational Classification (SOC) is used as the standard system for almost all employment-related data. It identifies and aggregates occupations by similarity of qualifications, training, skills and experience. At the most general level, occupations are placed into nine 'major groups': managers and administrators; professional; associate professional and technical; clerical and secretarial; craft and related; personal and protective services; sales; plant and machine operatives; and other.

Although there is value in having a standard system describing occupations and job titles, SOC has limitations. As the labour market changes, the descriptions have become out-of-date. Some parts have become overpopulated and not detailed enough. There are also conceptual difficulties: some SOC groupings lean more toward level of work and others to sector. In addition, information collected using SOC often needs to be re-interpreted to be useful in career guidance.

Job levels. Constructs of job level help individuals understand their chances of access to various types of work. Frameworks incorporating level are helpful in describing career progression. However, the notion of hierarchical level is becoming more problematic as work becomes less rigidly structured. Ideas of skill level rather than more general notions of job level may prove to be more powerful and robust.

Sectors. The Standard Industrial Classification (SIC) is used in the UK to classify sectors of employment. At the most general level, nine main sectors are used: agriculture and fishing; energy and water; manufacturing; construction; distribution, hotels and restaurants; transport and

communications; banking, finance and insurance; public administration, education and health; and other services.

Sectors are useful in career guidance because they relate to individuals' knowledge of employers, and there are strong similarities within sectors in the kinds of work on offer. Sectors incorporate common elements of culture and work patterns. Also, many employment forecasts are sectoral. However, information based on sector may mask the fact that some occupations are found across nearly all sectors.

Contracts. Employment information is also collected and presented to show contractual differences (e.g. full-time/part-time, temporary/permanent). For some individuals (e.g. parents looking for part-time employment) labour market information on where such work is available is essential, and may determine their occupational choice.

CLASSIFICATIONS DEVELOPED BY EMPLOYERS

Job descriptions and job titles. Traditionally, the way employers communicated externally and internally about kinds of work was by job descriptions. Job titles are still used in recruitment, but are now more often explained with reference to skills or personal attributes or experience/qualifications required. Job titles are still used internally, too, but have often become meaningless as descriptors of job content.

Job analysis. Some employers use job-analysis procedures to describe the content of jobs and the demands placed on workers, and many view carrying out some form of job analysis as a critical stage in employee selection and development. Because each job is analysed individually, job analysis is cumbersome and expensive. Developments in IT should make it easier to pool the results of job analyses to arrange jobs into families, but employers rarely do this in a systematic way.

Job evaluation. Job evaluation systems also analyse jobs along specific dimensions. These have traditionally focused on scale of responsibility, but are now taking more account of competence levels.

Grade level and organisational location. These have been used inside employing organisations to define work types. However, organisational structures are becoming less helpful as ways of defining work. Job grades/levels are getting broader, new functions are emerging, and there is a desire to break down old functional boundaries.

New frameworks. New frameworks which seem to be emerging in employing organisations include broad levels of work, job families (clusters of jobs with similar skills and areas of knowledge), ideas of work role, and skill and competence frameworks.

CLASSIFICATIONS LINKING INDIVIDUAL CHARACTERISTICS TO OPPORTUNITIES

Interests.   Interests refer to a person's preferences for particular work activities. One of the best-known interest frameworks is Holland's RIASEC model which sets out six interest types: realistic, investigative, artistic, social, enterprising and conventional. Others include those used in JIIG-CAL, Prospect and other computer-aided guidance systems and interest inventories.

General interests – for example, Holland's six types – may not be valid for all groups. Interests assessed at an intermediate level between specific occupational titles and general interests may be more useful. This is because they are more in line with the language people use themselves to describe their interests (e.g. writing, teaching). However, it could be argued that the more general, latent dimensions are helpful in broadening individuals' perspectives by linking preferred activities to others which are similar. On the other hand, these frameworks have been criticised for not taking enough account of emerging work roles which may demand a wider range of interests.

Values.   Values frameworks describe the satisfactions sought in work and educational environments. But relatively few of these types of frameworks exist to describe work, perhaps because it is possible to satisfy particular values in a range of different contexts. Career Builder, a computer-aided guidance system, attempts a classification of values in relation to occupations, as does Prospect.

Schein's career anchor framework is conceptually broader. According to Schein, career anchors consist of a mix of needs, values and skills which, as 'evolving themes' in career development, wed people to particular work roles. These are: security/stability; autonomy/independence; technical or functional competence; general managerial competence; entrepreneurial activity; service/dedication to a cause; pure challenge; and life-style integration. Because of its developmental emphasis, this framework may be most useful in guidance in mid-career and in analyses of organisational environments.

Skills.   Frameworks based on individuals' abilities and skills are commonly used in computer-aided guidance systems and other self-assessment tools to match individual characteristics (usually self-reported) to opportunities. Many frameworks exist, often based on long-standing psychological models of individual aptitudes and abilities. For example, one HE Careers Service uses a framework describing personal skills in ten areas: working creatively; handling numerical data; working with text; practical competence; problem solving; organising; carrying out research; relating to people; influencing; and communicating.

Many careers companies use the Morrisby Profile, which assesses aptitudes together with aspects of personality, work style and interests and provides occupational suggestions based on the inter-relationship of scores on each dimension. The framework of transferable skills employed in the Headway computer-aided guidance system allows assessments based on skills developed in home-making or leisure activities. As with interests, it is becoming commonplace for guidance services to develop their own skills frameworks to suit their needs.

SKILLS, COMPETENCES AND QUALIFICATIONS AS WORK REQUIREMENTS

Skills.   As well as describing individuals' characteristics, skills are used to describe the requirements of work. As jobs change and become more fluid, skills may become a more reliable construct on which to base descriptions of work. And because skills belong to individuals as well as being required by jobs, they potentially form a robust bridging construct in guidance between individual characteristics and opportunities. Skills also reflect underlying knowledge gained through experience and training, and so have a progression element built into them.

Competences and competencies.   Competences ('es') are behavioural descriptions of desired aspects of work performance (e.g. 'communicates well with customers'). National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) use this notion of competence. Competencies ('ies') are behaviours deriving from underlying personal characteristics (e.g. cognitive abilities) and have also been of interest to employers, especially in recruitment and selection.

Skill and competence constructs are important in describing work, but have not been used so much to classify work. Because each job requires so many skills and to different degrees, skill frameworks may be more useful as descriptive material about jobs than a classification system *per se*. Also, much emphasis has been placed on core/basic/key skills which by definition are common across jobs rather than differentiating between them. In theory, skills could be used more to show what is special or different about jobs, but skill frameworks rapidly become unwieldy and require frequent updating.

Qualifications.   Qualifications can be used to describe work in at least three different ways: content of learning, job level, and sphere of work. Where a qualification maps clearly on to a particular job or group of jobs, the *content of learning* for that qualification is likely to be useful in career guidance to indicate the skills, knowledge and activities required. Qualifications may also be used to differentiate between *job levels* by giving an equivalent qualification level for the skill level required (e.g. graduate/non-graduate).

Qualifications may also be used to differentiate *spheres of work* according to the types of qualifications relevant. NVQs use terminology which links to types of work. The NVQ main area classification is more sectoral than occupational, though

specific NVQs have a more occupational feel. NVQs are more heavily used in some areas of the economy than others. The most significant use of NVQs to date has been in: construction; engineering; goods and services; health, social and protective services; and business services.

Other classification systems are used in other parts of the education system. Higher education uses more traditional discipline labels. Courses in FE are classified by the Superclass system, which has 23 'hierarchies' of subject: some are conventional disciplines (e.g. law, social sciences); some are sectoral (e.g. transport services); some represent common business functions (e.g. marketing).

Although qualifications provide some useful insights into types of work, there remain problems with using qualification structures as a mapping device. In particular, it is difficult to relate academic disciplines (as used in HE) to sector-specific vocational classifications (as used in NVQs). Also, current NVQs fall short of representing all the kinds of work existing

in the UK. Furthermore, vocational qualifications do not reflect the diversity within fields of work. However, level of qualifications approximating to skill levels may be a useful way of thinking about levels of work in the future.

HYBRID AND MULTI-DIMENSIONAL FRAMEWORKS

There are several frameworks which describe the world of work in terms of two or more of the constructs we have been examining. For example, Collins has proposed a two-dimensional model of work based on level and field: the level dimension has five categories representing increasing levels of qualification; the field dimension represents work fields classified into six categories related to the JIIG-CAL framework, based on a hybrid model of work types. Guidance practitioners increasingly use hybrid frameworks. These approaches are similar to the way employers are seeking multi-dimensional models to cope with the variety and shifting nature of occupations.

RELATING CONSTRUCTS TO CAREER GUIDANCE AND CAREER DECISION-MAKING
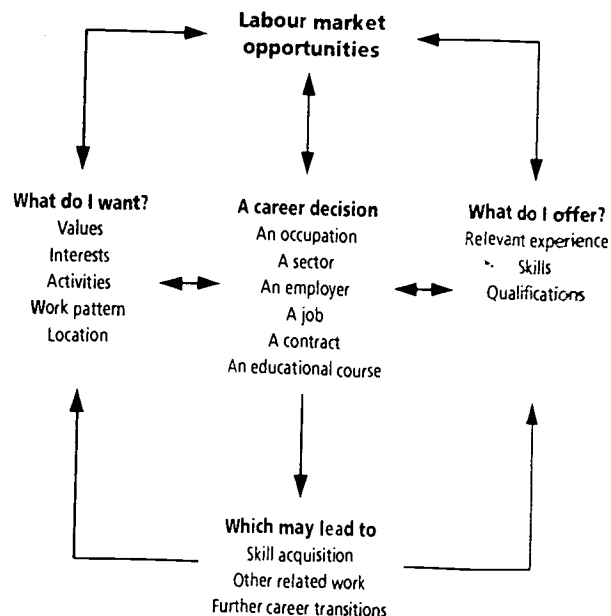
VIEWS OF PRACTITIONERS AND RESEARCHERS

Themes that emerged during the project included:

- Practitioners feel that too much emphasis is placed on 'occupational choice', especially in guidance for young people.
- Values and/or interests are often start points in guidance, but they more often lead on to a consideration of work activities or sectors, rather than specific occupations.
- Finding a good fit of values and lifestyle with work context and culture is seen as important.
- Individuals need help in developing conceptual tools which help them identify and sift information relevant to them.
- Practitioners on the whole prefer to use instruments to stimulate thinking: there is little confidence in mechanical 'matching' of individuals to work choices.
- Researchers are not convinced that the current instruments for helping individuals look at the world of work are all still valid in the light of labour market changes.
- Researchers are concerned that constructs and instruments may not be interpreted consistently by practitioners.

VARIED NEEDS FOR CAREER CONSTRUCTS

The relationship between some of the constructs examined and career decision-making can be represented diagramatically:

Labour market opportunities

What do I want?
Values
Interests
Activities
Work pattern
Location

A career decision
An occupation
A sector
An employer
A job
A contract
An educational course

What do I offer?
Relevant experience
Skills
Qualifications

Which may lead to
Skill acquisition
Other related work
Further career transitions

Although a simplified model, it highlights:

■ Different kinds of career decision, only some of which involve a fundamental choice of occupation.

■ The need to relate work preferences to employers' requirements and to labour market opportunities.

■ The need to consider the future implications of choices, which may involve development, progression and further, often unforeseen, transitions.

Within career guidance, information needs vary. *Different client groups* will need different types of information and will find different frameworks useful. For example, young people in the early stages of thinking about careers may value broad frameworks which portray differences between occupations, while those in mid-career may find the language of transferable skills more useful.

Type of decision is important too. Guidance practitioners work with people facing a wide range of different types of career moves, including initial occupational choices, educational choices, shifts in occupation, choice of employers, changes in contractual state, or intra-organisational moves. And geographical considerations will vary – some clients will need detailed information about local labour markets, while for others national data will be required.

Different frameworks will also be required for different *guidance purposes*. Within *career education*, frameworks that describe the world of work in broad terms will often be as useful as those that discriminate between opportunities. In individual *career guidance*, on the other hand, where the purpose is more likely to be helping individuals with specific decisions, information often needs to be more detailed and able to discriminate between opportunities. Different frameworks again may be needed in *career placement*: here occupational titles may be helpful, for example.

There is growing interest in *tracking* the work destinations of individuals leaving educational institutions or holding specific qualifications. Serious tracking would require the varied agencies and employers involved to adopt common definitions for both qualifications and work types.

DIMENSIONS OF CHOICE

Within the guidance literature, the constructs and frameworks used to describe work reflect concern with choice of occupation, and how interests and values assist that choice. Decisions related to other dimensions of working life have received less attention: for example, choice of type of organisation or employer, or decisions about whether to work full- or part-time. Classifications of organisational career systems exist, as do check lists for analysing other features of organisations, but these usually require 'insider' knowledge, and may be of more use in organisational career interventions than initial guidance.

Another drawback with many frameworks is that they are largely static, failing to take account of work histories and how careers develop over time. New career patterns link jobs requiring similar skills and knowledge that are easy to move between, and the concept of one kind of work experience or skills giving an individual the ability to move to another kind of work is now more important. Descriptions of careers in these terms need to be updated regularly as career paths accommodate to changes in work.

CONCLUSIONS AND KEY ISSUES

CURRENT STRENGTHS AND WEAKNESSES

■ Frameworks of *occupation* and *sector* are easy to understand, but the standard frameworks are not especially simple. SIC is quite robust as sectors change slowly, although some of the divisions are too broad to be helpful in career choice. SOC needs frequent updating to reflect new job titles, and its method of aggregation into broad socio-economic groups does not reflect likely career groups.

■ Some of the *hybrid and multi-dimensional models* and those emerging from *employers* come closer to linking work with careers.

■ The emergent *qualification levels* (as used in NVQs) hold promise in helping individuals map between their levels of skills and qualifications and the demands of employers, though extension is needed at the top end.

■ If work by sector, job family and level can be described by *skills*, then we can relate work to the notions of progression and development so central to careers. However, there are no highly developed frameworks for skills that are widely accepted in the UK, and it seems likely that skill information is better seen as illustrative and descriptive rather than a potentially exhaustive classification system.

■ Current groupings of vocational *qualifications by subject* are largely sectoral but different from SIC – this is not particularly helpful. Some of the information contained within the definition of NVQ units could be used more widely in career guidance to illustrate skills required in different types of work.

■ *Work context and culture* may be becoming more important constructs as they relate to individual values and lifestyle preferences. Although clear classifications exist for contractual variations in work, we do not have highly developed models of work context – i.e. patterns of work, workplace culture, social aspects of work.

■ We do have well-developed constructs of occupational *interests*, but there is doubt as to the continued validity of specific frameworks and instruments. More attention is needed to helping individuals map between interests and the frameworks employers use to describe opportunities.

■ *Labour market information* is predominantly collected and presented by sector and occupation. If multi-dimensional models of work are more helpful than occupation alone in decision-making, we need to look again at how LMI is reported.

KEY ISSUES AND AREAS FOR R & D

The findings of this project suggest several areas needing further investigation:

Clusters of work types and multi-dimensional models. We need ways of 'clustering' occupations which better reflect career options and progression. The construct 'occupation' as the primary description of type of work needs to be supplemented by other constructs which take more account of flexible forms of continuity and progression. Good start points would be current hybrid models and emergent employer-based constructs (e.g. job family).

Work context and psycho-social aspects of work. Research is needed into the best ways to describe workplace culture and how to help individuals relate these to other aspects of work and to their personal values and lifestyle choices. More descriptive material on workplace context and culture as it varies by sector and employer needs to be available.

Helping individuals relate themselves to work. We may need to identify 'intermediate' constructs to assist mapping. Guidance tools and LMI systems need a 'thesaurus' facility, to help individuals define terms and access related key words. We may need to be able to combine individual constructs like skills, interests and values into a more holistic view of the person. There is also a 'translation' job required between the language used by employers and that used in guidance. This aspect of translation would be assisted by increasing the regular contact between employers and guidance practitioners, so that the ever-shifting language of the labour market is reflected in the support given to individuals.

Skills as descriptors of work. There is an argument for skills supplanting or at least supplementing occupations as the dominant construct for highlighting similarities and

differences between types of work. The notion of skill is also attractive to describe development potential, career paths and career progression. It may be helpful to look at 'skills' in a more flexible way, embracing some aspects of values and attitudes.

Labour market information and intelligence. Computers have far-reaching consequences for labour market intelligence. They make frequent updating more straightforward and also lend themselves to multi-dimensional constructs through database technology. In addition, they can handle multiple coding of the same constructs through explicit cross-referencing and keyword searches. A clearer strategy for the provision of LMI is now needed, fully geared to increasing direct computer access by individuals and making information more user-friendly.

Lessons from practice. There seems to be a lack of learning from the frameworks which practitioners have developed for themselves, and the ways they may help clients. Research into current practice needs to investigate the following issues:

■ Which constructs of work do different kinds of clients find most helpful?

■ Which constructs and frameworks do guidance practitioners find most useful in working with individuals at different stages of the guidance process and different stages of career development?

■ What are the most useful strategies for helping individuals map between themselves and the world of work, and what intermediate constructs, if any, are needed?

■ If clients are to be encouraged to research their own information, which kinds of systems and frameworks would best help them to do this?

FURTHER INFORMATION

The findings of the project are reported in full in:

Hirsh, W., Kidd, J.M. and Watts, A.G. (1998). *Constructs of Work Used in Career Guidance*. NICEC Project Report. Cambridge: CRAC.

Available from NICEC, Sheraton House, Castle Park, Cambridge CB3 0AX, on receipt of an A4 stamped (45p) and addressed envelope.

Further copies of this Briefing are available from the same address, again on receipt of an A4 stamped (20p for one or two copies, 31p for up to four copies, 38p for up to six copies) and addressed envelope.

April 1998

Maureen Flanders

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
ERIC REPRODUCTION RELEASE (specific document)

I. Document Identification:

Title: C ω J T ∧ ν C T J   o ⊢   ω • L ℓ   ν J L ૭ • N
            C ∧ ∧ L ∧   ϭ ω • ᠀ ∧ ν C L

Author(s):   ω .   ᴍ ∧ ſ ᴍ ,   J . ᴍ . ℓ • ᠀ ᠀   ⅄   ∧ . ϭ .   ᴡ ∧ ⊤ ⊤ ſ

Corporate Source: N ᴵ ᴄ ∧ C

Publication Date: ᴵ ૧ ૧ ₴

II. Reproduction Release: (check one)

In order to disseminate as widely as possible timely and significant materials
of interest to the educational community, documents announced in Resources in
Education (RIE) are usually made available to users in microfiche, reproduced
paper copy, and electronic media, and sold through the ERIC Document
Reproduction Service (EDRS). Credit is given to the source of each document.
If permission to reproduce and disseminate the identified document is granted,
please CHECK ONE of the following options and sign the release form.

 ✓ Level 1 - Permitting reproduction and dissemination in microfiche or
other
ERIC archival media (e.g., electronic) AND paper copy.

___ Level 2A - Permitting reproduction and dissemination in microfiche
and in
electronic media for ERIC archival collection subscribers only.

___ Level 2B - Permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality
permits. If permission to reproduce is granted, but no box is checked,
documents will be processed at Level 1.

"I hereby grant to the Educational Resources Information Center
(ERIC) nonexclusive permission to reproduce and disseminate this document as
indicated above. Reproduction from the ERIC microfiche or electronic media
by persons
other than ERIC employees and its system contractors requires permission from
the copyright holder. Exception is made for nonprofit reproduction by
libraries and other service agencies to satisfy information needs of
educators in response to discrete inquiries."

Sign Here:
  Signature: _____   Position/Title: D ᴵ ∧ ℓ C ⊤ • ∧

  Printed Name: Organization: N ᴵ ᴄ ℓ C
       ∧ . ϭ .   ω ∧ ⊤ ⊤ ſ

1

Address: Telephone No:

Fax: E-mail address:

Date:

III. Document Availability Information (from Non-ERIC Source):

If permission to reproduce is not granted to ERIC, or if you wish ERIC to cite
the availability of the document from another source, please provide the
following information regarding the availability of the document. (ERIC will not
announce a document unless it is publicly available, and a dependable source
can be specified. Contributors should also be aware that ERIC selection criteria
are significantly more stringent for documents that cannot be made available
through EDRS.)

Publisher/Distributor:

Address:

Price per copy: Quantity price:

IV. Referral of ERIC to Copyright/Reproduction Rights Holder:

If the right to grant reproduction release is held by someone other than the
addressee, please complete the following:

Name:

Address:

V. Attach this form to the document being submitted and send or fax to:

Associate Director for Database Development
ERIC/ACVE
1900 Kenny Road
Columbus, OH 43210-1090
FAX: 614/292-1260

1/98