As knowledge about adult learning evolves, assumptions and limitations of current theories are tested, challenged and replaced by new understandings. Yet beliefs about learners with difficulties in learning are more likely to influence decisions about how to teach, and what approaches to adopt, than new knowledge and insights. In this literature review the underlying purposes of provision for adults with learning difficulties are revisited, allowing greater clarity in deciding which strategies best suit their fulfillment. This led to a person-centred way of conceptualising the purposes of learning that offers a more holistic and multi-faceted view of adults with learning difficulties.
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List of abbreviations

ACE
Adult and Community Education

AEI
Australian Education Index

ALI
Adult Learning Inspectorate

BEI
British Education Index

CERI
Centre for Educational Research and Innovation

DDA
Disability Discrimination Act

DfES
Department for Education and Skills

EPPI-centre
Evidence for Policy and Practice Information

ERIC
Education Resource Information Center

FEFC
Further Education Funding Council

FEU
Further Education Unit

FHE
Further and Higher Education

HFT
Home Farm Trust

LEA
Local Education Authority

LSC
Learning and Skills Council

LSDA
Learning and Skills Development Agency
**NFER**
National Foundation for Educational Research

**NIACE**
National Institute of Adult Continuing Education

**NRDC**
National Research and Development Centre

**NTD**
National Development Team

**OECD**
Organisation for Economic Cooperation and Development

**OFSTED**
Office for Standards in Education

**QCA**
Qualifications and Curriculum Authority

**RARPA**
Recognising and Recording Progress and Achievement

**SPRU**
Social Policy Research Unit

**TLRP**
Teaching and Learning Research Programme

**UNESCO**
United Nations Educational, Scientific and Cultural Organisation
Executive summary

Main findings

The objectives of this review of literature were twofold:

- to identify the principal theoretical perspectives which indicate or reflect effective teaching or training approaches for learners with learning difficulties
- to provide a theoretical framework for evaluating current provision and informing the development of future provision for learners with learning difficulties.

The principal theoretical perspectives that underpin effective teaching strategies and approaches for learners with difficulties in learning are behaviourism, cognitivism/constructivism and socio-cultural models. These families of ideas are not mutually exclusive and have, over the years, influenced and been influenced by one another's insights into how people in general learn best. The effectiveness of particular teaching methods depends on their underlying purposes. For instance, if the aim is to help students remember facts, then direct instruction has been found to be most effective. On the other hand, approaches that engage students in active learning are more effective in developing understanding. Different purposes demand different methods. Thus revisiting the underlying purposes of provision will lead to greater clarity in deciding which conceptual and practical strategies are best suited to their fulfilment.

In practice, views and beliefs about the learners themselves are likely to influence decisions about how to teach and what approaches to adopt. Rather than being governed by new knowledge and insights about learning, decisions about how best to teach adults with learning difficulties are likely to be influenced by attitudes and beliefs about the nature of their disability, their status as adults and their place in society. This in turn has influenced ideas about the forms of provision that best meet their needs (whether specialist or mainstream) and the purposes of learning for this group of learners.

This led us to propose an alternative way of conceptualising the purposes of learning, one that is person-centred and which we believe offers a more holistic and multi-faceted view of adults with learning difficulties. The three purposes are:
being (developing a sense of and belief in one’s own identity and who we want to become)

having (acquiring new skills, knowledge and understanding and accessing new opportunities)

doing (becoming empowered to participate, and being enabled to participate).

These purposes are interdependent, and inextricably linked. This provided us with a different approach to interpreting and framing the literature on learning and adults who experience difficulties in learning. The main findings are as follows:

1 Decisions about teaching approaches are most effective when based on an informed eclecticism that draws on a range of theories of learning rather than an adherence to a single theoretical model. At present, beliefs about people with learning difficulties and how best to teach them tend to flow more from ideological positions than an informed view of teaching and learning.

2 Learning should be purposive. A focus on purpose, rather than outcome, shifts attention away from a reductive, functional and pragmatic notion of learning to a more complex redefinition of learning and one that reflects the emotional and psychological aspects of learning, and the acquisition of knowledge and skills as well as active participation. Teaching methods should be such that they enable these purposes to be fulfilled.

3 The literature supports Tomlinson’s assertion that teaching methods differ not according to kind but degree. Effective teaching should be governed as much by underlying values and purposes as by what is to be learned, the learner’s stage of development, their predispositions and their capacities.

4 In the past, participation in activities alone was often regarded as sufficient without regard for what a student was actually learning. However, process and outcomes are equally important. The nature of teaching methods and approaches can have a profound influence on the development of an individual’s sense of self and social and emotional well-being as well as on their attitudes and beliefs about themselves as learners. But it is equally important that people with learning difficulties acquire tangible learning outcomes regarded by society at large as well as by themselves as valuable, and that contribute to the fulfilment of their aspirations.
5 There is a shift in the literature away from the concept of ‘readiness’ towards a focus on learning in situ, whether that is in relation to basic skills, everyday living, personal and social interactions or employment. Effective teaching appears to combine learning in real-life settings with the development and practice of specific skills in controlled settings using a variety of methods. The transfer and generalisation of skills must be planned for, and will involve a network of other professionals working together to support learning in different settings.

6 The potential of information technology to support learning and contribute to learners’ empowerment and social inclusion has emerged as an important theme in the literature. Instead of being seen as a useful but peripheral tool, information technology and multi-media approaches need to be reconceptualised as central to the learning process.

7 The context of learning is crucial in terms of the planned and unplanned opportunities for learning that different environments can afford. The context influences not only what is learned but how it is learned through the social interactions that occur, the networks that are created and the means that are available within particular environments. The context can transform how learners see themselves and how they are seen by others.

8 The process of learning can become the means through which people with learning difficulties themselves challenge the negative and stereotyped views that are held by many in society about who they are and who they can become. In this context, learning is envisaged as a quality-of-life issue that emphasises respect for the real lives, experiences and aspirations of people with learning difficulties combined with the notion of community regeneration and empowerment. This can be achieved through working together towards a common goal where the participants are recognised as the experts. Examples include community-based programmes, performing arts projects and self-advocacy groups. These approaches challenge existing ideas about the nature of the knowledge that is to be acquired, the methods and materials that are used and the role of the learners in the teaching and learning process.
Implications for practitioners

- Use a wide range of teaching methods and approaches that draw on different ideas about learning, matched to a clearly articulated set of purposes.

- Take time to consider your beliefs and assumptions about people with learning difficulties and their place in society and how these influence the nature of provision that you offer and the methods that you use for teaching or training.

- Take time to articulate what you see as the underlying purposes of your provision and how they relate to the three purposes of being, having and doing.

- Explore with learners their reasons for wanting to learn and review the implications that these have for what and how you teach.

- Ensure that learning has meaning for learners through building on their own aspirations and interests.

- Recognise each learner’s unique experiences, motivations and aspirations as fundamental to the learning process.

- Focus on both process and outcomes, ensuring that learning leads to worthwhile outcomes for learners linked to their aspirations and needs.

- Use strategies that combine learning in real-life situations with learning in controlled or simulated environments.

- Recognise and actively plan for the transfer and generalisation of learning between settings.

- Embed the use of technology and multi-media approaches into the teaching and learning process.

- Ensure that learners have access to progressively more demanding learning environments through which they can widen their social networks and interactions and be supported in transforming how they see themselves and how others see them.

- Use teaching methods and approaches that actively contribute to the development of learners’ self-determination, self-advocacy and empowerment.

- Work with local partners from other services and community organisations to develop community-based programmes that involve learners in their co-construction.
Implications for the Learning and Skills Council

- Support the development of effective teacher training that focuses on teaching and learning and that expands the repertoire of teaching methods and approaches, including multi-media approaches to learning that practitioners have at their disposal.

- Review current funding priorities, targets and mechanisms to ensure that providers are supported in adopting a holistic approach to learning that takes account of the proposed underlying purposes of provision and the aspirations and needs of the whole person.

- Ensure that the introduction of Recognising and Recording Progress and Achievement (RARPA) is fully inclusive of all learners and that it opens up new ways of recognising the learning and achievements of people with learning difficulties.

- Ensure that national initiatives that promote the use of ICT include all staff working in the field of learning difficulties, and that providers are expected to develop inclusive ICT development strategies under the DDA.

- Ensure that funding decisions encourage providers to develop provision that opens up new and challenging learning environments and resist decisions that are likely to expand school-based provision for post-19 learners.

- Facilitate innovation that fosters the development of community-based programmes through supporting interagency working under the new children’s trusts arrangements and Learning Disability Partnership Boards.
Introduction

The starting point for this review of literature on theories of learning and adults with learning difficulties is the FEFC’s 1996 landmark report, *Inclusive Learning* (also known as the Tomlinson Report). This report made learning its central focus, arguing that unless we understand how students learn we cannot begin to make the right provision for them. Central to the Tomlinson Report was the notion of ‘inclusive learning’. The report defines this as:

*a way of thinking about further education that uses a revitalised understanding of learning and the learner’s requirements as its starting point. The aim is not simply for students to ‘take part’ in further education but to be actively included and fully engaged in their learning* (1996:25–26).

Theories of learning are ideas about how people learn, and they underpin teaching strategies and approaches. Forms of provision are about what and where such learning occurs. This is an important distinction because, as we shall show, teaching approaches and strategies for people who experience difficulties in learning and/or have disabilities are sometimes confounded with forms of provision making it difficult to fulfil Tomlinson’s vision of provision as something where students who experience difficulties and those with disabilities truly are ‘actively included and fully engaged in their learning’ (25–26).

In addition, since the publication of *Inclusive Learning*, reports have tended to focus on provision rather than learning. For instance, the recent Learning and Skills Council Report, *Through Inclusion to Excellence* (LSC 2005) has provided an important systemic review of provision for students with learning difficulties and/or disabilities but did not consider the underlying ideas about learning that are subsumed within forms of provision and which influence the teaching approaches and strategies that are adopted. The purpose of this project therefore was to explore the literature on theories of learning and their implications for those who experience difficulties in learning.

In this section the aims and objectives of the project are outlined, followed by a description of the learner group. We consider the main theoretical perspectives on learning before providing a rationale for this review. The section concludes by setting the review in context reflecting on developments post-Warnock and leading up to the Tomlinson report.
Aims

This review of literature aims to provide a conceptual basis for a further articulation of a notion of inclusive learning. The specific aims of the project were to:

- identify approaches that appear to be effective in raising attainment and improving learning outcomes in a range of contexts
- provide a theoretical basis from which to critique current practice
- make recommendations for the development of future practice and an agenda for further research.

Our objectives therefore included the following:

- to identify the principle theoretical perspectives which indicate or reflect effective teaching or training approaches for learners with learning difficulties
- to provide a theoretical framework for evaluating current provision and informing the development of future provision for learners with learning difficulties.

Consequently, we formulated the following research questions:

- What do we know about learning in settings other than schools?
- What theories of learning might apply to these settings?
- Are these theories interpreted differently for different learners, especially those who experience difficulties in learning?
- What are the implications?
Who are the learners?

The most recent survey of provision (LSC 2005) shows that there are some 579,000 learners with a self-declared learning difficulty or disability enrolled in the whole learning and skills sector, representing 11% of the full-time equivalent student body. Of this group, around 70% are adults. It is important to remember, however, that not all students with a disability will experience difficulties in learning, and so the group with whom we are concerned represents only a proportion of this number. That said, over the last 30 years the learner group has not only grown in size but has changed in complexity, gradually widening to include students with a wider range of difficulties in learning. These learners all experience generalised difficulties in learning arising from a range of cognitive, physical and/or sensory impairments as well as social disadvantage. Of course, as Norwich and Kelly (2005:48) point out, it is important to remember that the concept of learning difficulties is contested by those who see the term as socially constructed. But, as Norwich and Kelly also conclude, the depth of disagreement varies in inverse proportion to the severity of the difficulty: ‘More disagreements are found with difficulties in learning which are not so different from the average.’ Consequently, the term ‘learning difficulties’ is hard to define and is used differently for different purposes by different people in different contexts. For example, within the post-compulsory sector there have been various attempts over the years to identify the number of learners with learning difficulties and/or disabilities in further and adult education in order to judge equality of opportunity as well as establish a framework for allocating resources. Surveys of further education provision have relied on the use of traditional categories of learning difficulty and disabilities (FEFC 1997, LSC 2005) and data from management information system statistics, eg moderate learning difficulties, mental health problems, autism, dyslexia. Figures resulting from these surveys must be treated with caution, however, since they rely on self-declaration or on local interpretations of these terms.

Section 2
Legal definitions are based on Warnock’s (DES 1978) view that there is a continuum of difficulties in learning that spans the general population. The 1992 Further and Higher Education Act (and retained by the 2000 Learning and Skills Act) adopted the 1981 Education Act’s definition of learning difficulties as when ‘a person… has a significantly greater difficulty in learning than the majority of persons of his age’ (Section 4(6)–(7) Further and Higher Education Act 1992). An individual’s difficulties in learning are therefore conceived as relative to those difficulties experienced by others. However, no statutory means exist within the post-compulsory sector to identify young people and adults who do or do not have difficulties in learning as measured against such a norm.

Social services, on the other hand, use the term ‘learning disabilities’ to describe a narrower band of people who receive their support from within this broader group described by commentators in education as having learning difficulties. Other terms in use include ‘intellectual impairments’ and ‘developmental disabilities’.

The government’s White Paper ‘Valuing People’ (DoH 2001:14) gives the following definition of learning disability:

*Learning disability includes the presence of:*

- a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) with:
- a reduced ability to cope independently (impaired social functioning)
- which started before adulthood, with lasting effect on development.

Studies of adults with ‘learning disabilities’ show that between 50% and 90% have communication difficulties, while a total population study showed that between 5% and 15% present severe challenging behaviour (Emerson 2001).
So, the broad categorisation of learning difficulties belies many complex issues, including cultural differences in interpretation. The OECD collects international data on three different groups of learners within the compulsory education sector who receive additional or different support arising from a learning difficulty or disability:

- Cross-national category ‘A/Disabilities’: students with disabilities or impairments viewed in medical terms as organic disorders attributable to organic pathologies (e.g., in relation to sensory, motor or neurological defects). The educational need is considered to arise primarily from problems attributable to these difficulties.

- Cross-national category ‘B/Difficulties’: students with behavioural or emotional disorders, or specific difficulties in learning. The educational need is considered to arise primarily from problems in the interaction between the student and the educational context.

- Cross-national category ‘C/Disadvantage’: students with disadvantages arising primarily from socio-economic, cultural, and/or linguistic factors. The educational need is to compensate for the disadvantages attributable to these factors. (OECD 2004a, p14)

Each of these broad categorisations is likely to contain some learners who will be described by the education system as experiencing difficulties in learning, with those with the most complex difficulties likely to fall into category A. If we accept that difficulties in learning can be seen as a continuum then the term ‘moderate learning difficulties’ may be used to describe learners who fall into categories B or C. Having said that, the UK, unlike most other countries, does not report any students whose social disadvantage leads them to have difficulties in accessing the curriculum (OECD 2004a). Thus there are considerable disagreements about who does and does not fall within category C, or indeed whether it is helpful to allocate resources on an individual basis to this group at all (Dyson, Meagher and Robson 2002).
In summary then, the concept of learning difficulties is wide-ranging and elusive. We therefore decided, for the purposes of this study, to include literature where the authors themselves described the learners as experiencing generalised difficulties in learning. In doing so, we recognised the many differences in both categorisation and terminology that exist between the different disciplines and cultures explored above. Studies concerning learners whose difficulties in learning result from particular developmental problems such as autism or Down Syndrome were also included. On the other hand, we excluded studies focusing on learners with specific learning difficulties, eg dyslexia, dyscalculia, as a significant review has recently been carried out (Rice with Brooks 2004). Thus, selecting the search terms on which to base our literature review required some pragmatic decisions about what terms to use and what to include within the review. These decisions are described in more detail in Section 3.

**Perspectives on learning**

Ideas about how people learn have evolved over time. Attempts to draw clear boundaries around different schools of thought are misleading, since as ideas develop they draw from and are influenced by one another. In an attempt to characterise the differences between the various theoretical perspectives, Norwich (2000) distinguishes between paradigms that are broadly mechanistic or individualistic, ie where the focus is on the individual, and those which are principally organismic, ie focusing on the interaction between the individual and their environment. The three broad theoretical perspectives described below reflect a gradual shift in emphasis away from an individualistic to an organismic approach to learning, but each approach is useful for particular purposes. These descriptions have drawn on the work of Bredo, (1997), Davis and Florian (2004), McInerney (2005), Merriam (2004), Tusting and Barton (2003) and the Teaching and Learning Research Project (www.learntolearn.ac.uk) – see Appendix 1.
**Behavioural models** are based on the premise that all behaviour is learned. Early models based particularly on the work of Skinner and Watson stressed the fact that behaviours can be modified in response to external stimuli, and that only changes in observable behaviour could be regarded as learning. The teacher’s role is to consider the eventual outcome that the student should achieve, to break down the learning process into a series of smaller tasks and to reinforce students’ successful achievement of the appropriate learning goals (Tusting and Barton 2003). Reinforcements gradually become more intermittent as the learning becomes an integral part of the learner’s repertoire of behaviour and skills. The attractions of the behaviourist model lies in its simplicity: there are practical, positive outcomes, achievements are easily identifiable and measurable, and everyone involved understands the goals and expectations implicit in the model (Davis and Florian 2004). The approach has been criticised because of its mechanistic emphasis on externally observable or measurable achievements (Sebba, Byers and Rose 1995). As Davis and Florian assert, there is abundant evidence that what an individual knows and understands may not necessarily be measurable in the form that is required. Consequently later models, while still largely focused on individual learning, were influenced by theories of cognition which took into account the ‘thinking’ aspect of learning.

**Cognitivist and Constructivist models** regard learners as active participants in the construction of their own knowledge. Among the key theorists that have contributed to work in these areas are Gagne, Chomsky, Piaget and Bruner. Cognitivist models provided insights into the mental processes involved in learning or information processing. The focus is on how individuals process information to solve problems and make sense of the world through organising mental models or schemata. Learning is:

*that reflective activity which enables the learner to draw upon previous experience to understand and evaluate the present, so as to shape future action and formulate new knowledge.*

(*Abbott, 1994*)
Constructivist models of learning built on cognitivist ideas, and deepened our understanding of metacognition (or learning how to learn), study skills, learning styles, deep and surface learning, and self-regulation. Individuals learn through their personal interactions with their environment. Tusting and Barton (2003) point out that constructivism charges learners with not only assimilating new knowledge, but also with constructing new forms of knowledge as they learn, making learning a transformative experience (Davis and Florian 2004). Subject disciplines are not static entities that can be passed from teacher to learner but are individually constructed, shaped by each person’s unique experiences and perceptions. The teacher’s role is to provide experiences and materials that foster the construction of individuals’ learning.

Socio-cultural models emphasise the social dimension of learning and the influence on learning of wider social, cultural and historical contexts (McInerney, 2005). Early work in this field at the beginning of the last century includes that of Dewey and Mead while later important theorists include Vygotsky, Lave and Engestrom. Learning cannot be understood only as an individual, internal process but as what is constructed as a result of interactions between people and the tools, language, signs and symbols that are inherent within particular settings or contexts. People learn through their participation in social groups and communities, enabling them to arrange new knowledge in ways that have personal meaning. Learning occurs both individually and collectively (whether that’s in a small group, class, team, organisation or online community) so that the collective knowledge is greater than and different from the sum of the knowledge of individuals. As Merriam (2004) points out, ‘Most communities of learning do not have a name, but they are quite familiar to us. We know who belongs.’ Participation in different communities influences how we see ourselves and how others see us. The implications are therefore that teaching needs to be contextualised and provide opportunities for learners to solve problems and work collectively in different contexts. Teachers need to recognise the implicit as well as the tacit knowledge that participation in different groups requires.
In summary, the development of knowledge about adult learning evolves, as does the development of knowledge about any kind of learning, as the assumptions and limitations of current theories are tested, challenged and gradually replaced by new understandings. But it is also important to remember that while researchers are engaged with new theoretical developments, such as ‘transformational learning’, practitioners are using strategies that emerged from older theoretical conceptualisations and their implicit beliefs about teaching, what Agyris and Schon referred to as ‘theories in use’ (1974). We turn now to exploring why this study was needed, and to placing it in the context of other related research.

The rationale for the review

Generally, there is limited understanding of how learning theories have contributed to the development of provision in post-school education or employment training for learners with learning difficulties and/or disabilities. A central and contentious area for debate is whether particular strategies are more suited to particular categories of disabled learners or whether the way in which people learn is fundamentally the same, regardless of an individual’s disability or learning difficulty. Lewis and Norwich (2001, 2005) describe the two polarities of the debate as the ‘general differences’ and the ‘unique differences’ positions. Those who adopt the former position argue that there are sets of characteristics specific to particular groups of disabled individuals, such as autistic learners, that determine how an individual learns, and therefore what teaching strategies should be adopted. Those who adopt the unique differences position argue that everyone is at once the same and different, and that medical categories of disability are unhelpful for educational purposes. The preponderance of evidence from the research literature on school-age learners more fully supports the unique differences position (eg Davis and Florian 2004, Florian, Hollenweger, Simeonsson, Wedell, Riddell and Terzi 2006, Lewis and Norwich 2001, 2005, Ysseldyke 2001) than the general differences position. The Tomlinson Report also clearly associated with the unique differences position with its assertion that: ‘the needs of learners with learning difficulties are similar to those of all learners and that teaching approaches will differ by “degree rather than kind”’, (p5), although it also argued for the retention of some specialist provision.
Lewis and Norwich (2001) have noted that attitudes and beliefs about forms of provision can influence the position some commentators adopt in the debate about whether particular strategies are more suited to particular categories of disabled learners (general differences approach) or whether the way in which people learn is fundamentally the same, regardless of an individual's disability or learning difficulty (unique differences approach). For instance, those who are committed to the retention of separate special schools and colleges as a form of provision are more likely to adopt the general differences approach, whereas those who are committed to inclusion in the mainstream of education are more likely to adopt the unique differences approach. Here beliefs about teaching and learning are informed by beliefs about forms of provision rather than the other way around, as generally discussed in the literature on learning theories where recommendations about provision follow new knowledge and insights about learning (Bransford, Brown and Cocking 2000, Merriam 2005).

Decisions about how to teach adults with learning difficulties and/or disabilities are guided by underlying curriculum purposes and beliefs about how best to respond to learning difficulties and/or disabilities. Teaching methods are selected on the basis of their fitness for purpose, but this fitness for purpose is informed by beliefs about the nature of the learning difficulty and what is considered an appropriate form of provision. As Davis and Florian's (2004) review of teaching strategies and approaches for learners with special educational needs noted, few studies have addressed issues particular to older learners. Adults with learning difficulties may be adults in name only. As a result, there has been limited empirical work that is directly relevant to the research questions posed here, although there have been a number of published reviews of research findings in related areas. These include:

- adult learning in general, eg Coffield, Moseley, Hall and Ecclestone (2004); Cullen, Hadjivassiliou, Hamilton, Kelleher, Sommerlad and Stern (2005); Hodkinson and Hodkinson (2004); McNeil and Smith (2004); Tusting and Barton (2003)
- literacy, language and numeracy learning for adults in general, eg Kelly, Soundranayagram and Grief (2004)
literacy, language and numeracy learning for particular categories of adult learners, eg Armstrong and Heathcote (2003); Rice with Brooks (2004); Besser, Brooks, Burton, Parisella, Spare, Stratford and Wainwright (2004)

pedagogy and school-age pupils with special educational needs, eg Lewis and Norwich (2001, 2005); Davis and Florian (2004).

In summary, reviews of post-school provision have either focused on adult learning in general without regard to those who experience difficulty, or on particular aspects of the curriculum. While those reviews that focus on literacy, language or numeracy may address the needs of learners who experience difficulty, most research into learning theories and those who experience difficulties in learning has been confined to school-age pupils, or has focused on particular categories of disabled learners. By focusing on the broader spectrum of post-compulsory provision and on the theoretical aspects of teaching and learning, this review aims to fill a gap in our knowledge.

**Background to the review**

We have taken as a starting point for this review the Tomlinson Report’s approach to learning and disability. The report proposed the following:

- **First**: it is the responsibility of organisations to create learning environments that meet the requirements of the learner, rather than the learner having to fit the environment.

- **Second**: teachers must seek to understand how people learn best.

- **Third**: students should be seen as equal and active partners in the learning process.

- **Fourth**: the needs of learners with learning difficulties are similar to those of all learners, and teaching approaches will differ by ‘degree rather than kind’ (1996:5).

The final and more contentious proposal was that teachers should be aware of learners’ different learning styles both in their planning and teaching.
Any discussion that relates to the implementation of these recommendations needs to acknowledge three interrelated points:

- the historical context in which provision for adults with learning/difficulties and or disabilities developed and which led to the Tomlinson recommendations
- the status of learners who experience difficulty as adults
- the range of settings in which learning occurs.

**Historical context**

It is important to remember that in England and Wales there has never been a single prescribed post-16 curriculum in further, higher or adult education. Curriculum content is governed by the syllabi of vocational and academic qualifications or the aims of particular courses. Historically, these divisions led to different teaching methods being adopted – the vocational curriculum tended to encourage an experiential approach, while the academic route relied on a transmission or didactic approach to teaching (Young, 1995).

In most vocational preparation courses experiential learning, whether in college-based workshops or work experience, played an important role. This was combined with classroom-based activities to support the development of concepts and underpinning knowledge. These approaches relied on ideas about learning, notably behaviourism, cognitivism and constructivism, that began to impact on post-compulsory education in the 1960s and 1970s. Broadly speaking, the development of ideas about learning began to shift away from focusing solely on the individual to a focus on the relationship between the individual and their environment. However, the 1980s saw the increasing influence of behaviourist principles on vocational education, with the introduction of National Vocational Qualifications and outcomes-based teaching approaches (Hyland 1994).
What of post-school provision for young people and adults with learning difficulties? In 1978 the Warnock Report had recommended that colleges establish both discrete and integrated provision as well as link programmes between schools and colleges. Following this report, studies of college-based programmes for students with learning difficulties showed curriculum content to be mainly a combination of generic vocational skills and basic literacy and numeracy, as well as social and life skills (Bradley, Crowe and Scott 1983) with an overemphasis on basic skills in many courses (Bradley and Hegarty 1981). The Copewell curriculum represented one of the few attempts to develop a systematic approach to planning the curriculum for adults with learning difficulties. Developed by Whelan and Speake (1981) and Whelan, Speake and Strickland (1984), the curriculum adopted a behavioural stance and comprised four areas: self-help, interpersonal, social academic, and vocational. Each area was further broken down into activities, eg personal hygiene, money, telephone, comprehension, and then further broken down into associated developmental checklists of skills. Dean and Hegarty (1984) contrasted this very structured approach to one that adopted a ‘formative approach’, which emphasised the importance of students experiencing a fresh start, and the learning that can arise spontaneously in new contexts. Later guidance emphasised the skills and qualities associated with employability, including autonomy, reliability, personal hygiene and presentation skills (FEU 1989).

These attempts to define the curriculum content by focusing on the individual’s needs were not without criticism. Corbett and Barton (1992) argued that trying to modify behaviours such as students’ social or presentation skills failed to tackle the profound structural inequities that existed within society.

Behavioural approaches, in which jobs were broken down into small tasks with each being taught in a step-by-step fashion, were also used with people with learning difficulties on job-specific training programmes in the United States and the UK (Gold 1981, Whelan and Speake 1981). This approach became known as Systematic Instruction, and was adopted by the Supported Employment movement of the 1980s and early 1990s. Supported Employment meant that people with learning difficulties began to be supported in the workplace to acquire work skills, rather than receiving training on separate training programmes (Beyer 1995).
While the focus of most research and development was initially in the further education sector, attention began to turn to the role of adult and community education and people with learning difficulties. The 1983 Health and Social Services and Social Security Adjudications Act (DoH 1983) introduced community care resettlement programmes for adults with learning difficulties who were living in long-stay hospitals. This led to the increasing involvement of adult education in working with disabled adults, both in supporting their preparation to leave the hospitals as well as their new lives in the community. The concurrent Disability Rights movement advocated community-based provision based on the values of empowerment, inclusion and student-centredness (Lavender 1988). Today these values find expression in national and international policies of inclusive education and lifelong learning (OECD 2004b, Learning and Skills Act 2000, Disability Discrimination Act (DDA) 1995 and the Special Educational Needs and Disability Discrimination Act 2001).

The increasing involvement of adult and community education led to debates about the role and purpose of adult provision and the relationship between therapeutic and educational approaches (FEU 1987). Based on new understandings from alternative views of learning such as constructivism and social constructivism, the FEU's 1992 guidance ‘A New Life’ advocated teaching approaches which suggested that learning occurs as a result of one’s experience, engagement or activity. ‘A New Life’ challenged the building-block approach advocated by behaviourist and developmental approaches to learning, and instead adopted a social model by emphasising the need to reduce external barriers to learning and progress. It emphasised the need to acknowledge learners’ prior experiences, to develop personal profiles and promote self-advocacy and a sense of identity and to recognise that teaching and learning can take place in a range of settings – at home, in hospital, in day centres – as a way of both acknowledging differences between learners and providing access to services. So for the first time curriculum guidance for adults with learning difficulties began to reflect a growing awareness that adult learning might be different from that of children’s, through recognising the experiences, self-direction, motivations and social roles that adults bring with them to the process of learning (Merriam 2004). The influence of some of the ideas contained in ‘A New Life’ remain in force today, in particular, the notion that learners are more motivated to learn when teaching is connected to their real lives, interests and aspirations.
Status of adults with learning difficulties

Approaches to understanding learning are influenced not only by different ideas about teaching and learning, but by ideas about differences between adults and children as learners. However, adults with learning difficulties may not be viewed as adults in the learning process. The Centre for Educational Research and Innovation (CERI) based at the OECD produced a series of seminal research reports throughout the 1980s and 1990s, e.g. CERI, 1986, suggesting that people with learning difficulties and disabilities were often not accorded adult status, but seen instead as perpetual children. The Tomlinson Report was influenced in many of its recommendations by the concept of adult status, arguing that the purposes of further and adult education should be to support learners in developing autonomy, having worthwhile paid employment and valued activities, family roles and social participation. However, these purposes are contested, and debates continue, for instance about the possibility of universal access to employment as well as what autonomy and family roles and responsibilities mean in practice for many adults with learning difficulties.

In an attempt to reconcile the relationship between andragogy and adults with learning difficulties, Price and Shaw (2000) and Price and Patton (2003) argue that the principles underpinning best practice in relation to both are identical. Both rely on a commitment to self-directed learning, building on previous experiences, problem-focused rather than subject-focused learning, and learning that is guided by what learners need to know.

The range of settings

Tomlinson recommended that learning environments should be created that meet the requirements of the learner rather than the learner having to fit the environment. Learning takes place in formal settings, such as colleges or employment training programmes, as well as informally at home or in the workplace. Recent research into non-formal and formal learning by Colley, Hodkinson and Malcolm (2003) concluded that there are elements of informal learning in formal settings, and formal learning in informal settings. The relationship between the learner and the learning context, and the extent to which this influences how they learn in different settings, is increasingly recognised as important (e.g. Bransford et al. 2000, Merriam 2004), although the nature of this relationship has not been explored fully. Questions about the effects of different settings on the learning of those who experience difficulties have yet to be investigated.
Conclusion

As Lefstein (2005) observes, care must be taken not to position ideas in terms of polarities, for example behavioural versus constructivist approaches to learning, unique versus general differences views of learners, since this only serves to create an unhelpful dynamic that often fails to find a way of addressing the concerns of both sides of any argument. There is growing understanding that learning is a complex activity. This has led a number of researchers to conclude that it is unhelpful to rely on a single strategy or theoretical model and that combined approaches based on a range of theoretical influences are more powerful than a single theoretical approach (Davis and Florian 2004, Speece and Keogh 1996). Thus, in order to broaden understanding of different learning theories and their influence on adult provision for learners with learning difficulties, it is necessary to examine the interrelationship between purposes of learning, teaching strategies and learning outcomes, and how these in turn are influenced by views and beliefs about disabled people and their place in society. In the next section we describe how we approached this task.
Section 3  Methodology and conceptual framework

Introduction

In this section we describe how we approached the task of identifying, analysing and conceptualising the literature from 1996 onwards. We wanted to know how far the ideas about learning contained in the Tomlinson Report had changed or developed. Given our argument that single theoretical models are limited, we needed to build a conceptual framework that permitted an understanding of how various learning theories, teaching strategies and learning outcomes combine to articulate the notion of learning for people with learning difficulties and to provide a ‘route map’ through the literature. This section describes how we developed the route map and sketched its contours as an introduction to the main review of literature in Section 4.

Method

The context in which we framed our searches is complex and uncharted. Thus we used a four-phase search strategy of progressive focusing that Hart (1999) terms ‘trawling’ and ‘mining’, which enabled us to undertake a broad search (trawl) that we were then able to refine (mine) to answer the questions posed by the project. The aim of each phase was to narrow the field of research while systematically searching for documents which related to the three areas we intended to explore: (a) teaching and training in the post-compulsory sector, (b) learning theories, and (c) learners who experience difficulties in learning.

A lack of substantive agreement on the definitions and terminology of the three interrelated areas at the core of the research resulted in having to repeat the trawling and mining process several times each time with a new set of search terms. With the support of an advisory committee, we agreed a number of search terms (Appendix 2) and search sites, including the databases of organisations like EPPI-Centre, LGA, NFER, NIACE, and NRDC among others (see Appendix 3). This process resulted in an amended list of terms which were used to search the ERIC, BEI, AEI and Psychinfo databases. This was followed by a hand search on academic journals (Appendix 4), government and other reports, professional and ‘grey’ literature, books and other material. Besides this, the most relevant and overall systematic finding across all sites was the lack of substantial research that combined all three of our areas, and in particular answered our question about learning theories for learners with difficulties in learning. (See Annotated bibliography for summary of key texts).
Each document was read by two readers who logged them on an electronic database using a grid made up of key-fields (Appendix 5) with the aim of classifying the documents by theories of learning, type of learning difficulty, and setting. Relevant documents that proved to be interesting or challenging were then read by two other team members and these were discussed during a series of meetings regularly held throughout the project. With regard to theories of learning, a main finding was that researchers did not often specify or make explicit the use of a particular theoretical perspective. These were therefore inferred through a series of clues ranging from the references used, and to the use of key terms typically associated with specific theories. We initially assumed that it would be possible to match the varied teaching approaches reported in the literature under the theoretical categories of behaviourism, constructivism, and socio-cultural theory. As a way of clarifying our respective understandings of what each theory entailed, we scrutinised possible definitions for each main theory (see, for instance, Appendix 1). This exercise proved to be very valuable, but it could not dissipate the doubts we had with the analysis of what each study aimed to achieve and what theories underpinned them.

As we proceeded, a pattern started to emerge in which the use of specific teaching strategies appeared to be related to (A) learning outcomes, (B) the wider learning purposes to be achieved and (C) the implications guiding the research, rather than a strict theoretical perspective. It became apparent that many empirical or theoretical studies drew from a series of theoretical sources and incorporated them in a variety of ways. Consequently this meant that some teaching strategies could be matched under more than one theory. The task of unravelling the dynamic relationship between teaching strategies and outcomes on one hand, and theories of learning on the other, shifted from being an analytical concern to being the core of the review. We began to agree, as Clarke, Dyson and Millward (1998) suggest, that there is a need for a re-definition and re-articulation of different perspectives such as those proposed by Billett (1998) and Price and Patton (2003). Moreover, such an approach seemed long overdue, given the body of research that suggests that teachers’ professional practice is informed by a range of theories rather than adherence to one (Brown and McIntyre 1993, Cooper and McIntyre 1996, Hargreaves A 1994, Hargreaves D 1998, Huberman 1993).
Towards a conceptual framework

As noted in Section 2, in which we consider current research in adult learning in general, the education of adults who have difficulties in learning is not detached from wider debates about the development and role of adult education in our present society. However, the mainstream literature does not openly or directly engage with the education of adults with difficulties in learning. To understand how ideas about learning have developed it is necessary to appreciate both general debates about learning as well as specific debates about the influence of models of disability on our values and beliefs about how people with learning difficulties learn best. Discourses about ordinary living and normalisation still inform the field of learning and adults with learning difficulties, together with a more transformative and empowering discourse centred on the notions of self-determination, economic independence and human rights/equal opportunities.

Theories of disability and learning

The education of adults with difficulties in learning is informed by a series of discourses about disability, difference and social inclusion. Sebba, Byers and Rose (1995), for example, claim that medical, psychological and ecological models have all influenced the education of people with learning difficulties. Sebba et al. argued that the medical model located the deficits within the person and stressed what people “could not do as a result of various “syndromes”” (1995:7). This model, based on medical labelling, led to the use of stereotypical assumptions about people’s learning capabilities. The psychological model was influenced by psychometrics and intelligence testing, developmental psychology and in particular Piaget’s theories, as well as behavioural psychology, mainly informed by Skinner’s theory of operant conditioning. Finally, the ecological model shifted the focus away from individuals and their deficits by stressing the influence of the environment on the individual. All of these ideas have had their adherents and critics, but like teaching and learning in general most have contributed to our overall understanding of the education of people with learning difficulties and/or disabilities.
Generally speaking, a medicalised notion of learning difficulty and disability views learning as constrained by the individual deficit, and thus frames what people should and can learn starting from the assumption of what they cannot do. Of course this is a reductionist understanding of the medical model, which has undoubtedly developed over the last 30 years. However, the idea that people lack the capacity to act properly, and consequently to learn satisfactorily compared to a norm or standard, has had a major impact on teaching and training strategies and methods.

So while psychometrics has been challenged as insufficient to measure levels of intelligence (Gould 1981, Thomas and Loxley 2001) it nevertheless still informs a tacit understanding of intellectual ability. Likewise, developmental psychology has been criticised for capping what people can do by framing their cognitive development within fixed stages.

Behavioural psychology, as Sebba et al. (1995) show, has been criticised for its potential to be used inappropriately, for removing learning from its natural context, for being too and uncritically dependent on assumptions about objectivity of measurement, and finally for disregarding a ‘lack of opportunities for fostering positive relationships, personal choice and interactions’ (1995:11).

However, many practitioners still use behavioural approaches based on a systematic approach to planning the curriculum that is achieved by breaking it down into areas which are further broken down into activities, eg personal hygiene, money, telephone, and then further broken down into associated lists of skills (eg MENCAP 2001, 2004). Though these approaches have been criticised for ‘removing learning from its natural context’ as well as ‘limiting the role of the pupil (learner) in contributing to the learning process’, (Sebba et al. 1995:11) behavioural approaches have been highly influential, and many teaching materials and curricula adopted by practitioners throughout the world are based on them.
The ecological model, the third important influence identified by Sebba et al., stresses the relationship between individuals and their environment, which is seen as dynamic and changing. The ecological approach is one of a number of theoretical ideas that fall under the general umbrella of organismic theories (Norwich 2000) and is considered more as a theory of teaching rather than learning since it emphasises the ‘match’ or ‘goodness of fit’ between learners and their environment. Based on work by Bronfenbrenner (1979, 1992), ecological systems are envisaged as a series of ‘nested systems’ rather like a Russian doll, beginning at the micro-level of, for example, the person in the family, and moving through to college and community, and to the macro-levels of the wider society and culture. Individuals can be members of different micro-systems such as their self-advocacy group, family or teaching group. Each system has its own dynamic, which in turn relates to and is influenced by the others, described as meso-systems. Teaching focuses on the micro level but is influenced by activities that occur within different systems. To some extent this approach can be seen as similar to the social model of disability, which argues that it is barriers within society that create disabilities.

A fourth set of ideas derives specifically from the Civil Rights movement. Burton and Sanderson (1997) cluster together normalisation, ordinary living, social role valorisation and rights. While to a certain extent the notions of ordinary living and normalisation still inform the field, it is worth pointing out that they have been criticised for imposing normative criteria about what constitutes a good quality of life (Holst 2000), and as Peters (1995) rightly points out, they have consequently diverted the focus from accepting diversity in their intent to integrate and normalise it. By contrast O’Brien, O’Brien and Jacob (1998), in their report of how people with learning difficulties are helped to live a ‘normal’ life in the community, show how the theory of social role valorisation (Wolfensberger 1995) can be helpful in enhancing the perceived value of the social roles of a person. In this case, the idea of ordinary living is matched with a transformative and empowering discourse centred on the notions of self-determination, economic independence and human rights/equal opportunities with the aim of changing social attitudes and simultaneously enhancing people’s self-image and competencies.
Klotz (2004) cites the work of socio-culturalists such as Gleason and Goode in the 1980s that went even further in challenging the concept of normalisation by revealing that the interactions of people with severe and profound learning difficulties had both meaning and purpose. Klotz concludes, ‘Rather than making them conform to normative social practices and behaviours as the means for their social inclusion and acceptance, this acknowledgment and engagement is in fact the fundamental basis for intellectually disabled people’s sociality.’ (2004:101)

This cluster of ideas has in turn given rise to the Quality of Life movement which has moved from a normative set of criteria against which the quality of the lives of people with learning difficulties can be measured to a recognition of both the relative and subjective nature of what constitutes ‘the good life’ for individuals. Thus in formulating our framework, it also became important to us to consider how the process of learning can be framed clearly within the overall purpose of supporting learners to acquire a good quality of life. This is a complex notion which informs the relationship between purposes, ie education, as contributing to ‘the good life’, theories of learning and the implications for teaching which provide the framework of the discussion in Section 4 (Dee, Byers, Hayhoe and Maudslay 2002, Holst 2000, Robertson 1998).

These considerations were reflected in the literature on learning for those who experience difficulties. On the one hand, there was a focus on learning as behaviour modification, on the other, learning was viewed as dependent on the experiential knowledge each learner brought to the learning experience. However, in the case of our target group, theoretical stances are often bound by assumptions about the nature of disability, difference and the meaning of inclusion, though it fundamentally revolves around coming to terms with what are considered to be the learner’s needs.
The literature engages with the notion of needs in a complex and varied way. The learner is positioned on a theoretical continuum from passive recipient in ideas based in normalisation and social control to active agent of transformation influenced by human rights and person-centred arguments. Between these two extremes lies a middle ground position with evidence of blending and combining these two apparently conflicting perspectives. The vast majority of documents view learners as active, able to communicate dreams, desires and wishes, but also in need of being taught the skills to communicate, and to acquire skills and knowledge and the capacity to use them. Learning therefore becomes a means to support the formulation of a set of life purposes to promote access to a number of opportunities. This view of needs as catalysts for positive change and transformation does inform the literature and theories of adult learning in general (Jarvis 1995, Mezirow 1991, Merriam 2004) and was specifically addressed by Maslow’s hierarchy of needs (1968). This approach to thinking about needs was also reflected in UNESCO’s four purposes of lifelong learning, which describe the needs of people to: learn to know, learn to do, learn to be, learn to live together. Moreover, learning occurs over time across all phases of the lifespan. Thus learning is lifelong.

The OECD (2003:1) suggests that the concept of lifelong learning has four central features:

- Lifelong learning covers the whole life cycle and comprises all forms of formal and informal learning.
- The learner is central to the process.
- The motivation to learn is fundamental to lifelong learning and is fostered through ‘learning to learn’.
- Personal goals for learning may change over time and will encompass all aspects of our lives.

UNESCO (1996) interpreted the purposes of lifelong learning as:

- **learning to know**, emphasising the need for knowledge about a broad range of general topics as well as working in depth on specific subject areas
- **learning to do**, meaning having opportunities to participate in practical and social activities alongside others
- **learning to be**, that is the development of personal responsibility, independence and judgement
- **learning to live together**, through developing an understanding of other people, their history, cultures and spirituality.
Central to the debates around lifelong learning are its underlying purposes. At one level the notion of lifelong learning has become intertwined with the need to have a trained and responsive workforce able to cope with the continuous change that the technological society demands. But lifelong learning also has the potential to be both socially and personally transformative (building social networks, enabling people to see themselves and others differently, and so on).

What are the implications of lifelong learning for adults with learning difficulties? While in practice mainstream adult education has focused on developing human capital, Riddell, Baron and Wilson (2001) in their comprehensive critique of provision for adults with learning difficulties argue that there has been an over-emphasis in education on social and life skills, strongly influenced by normalisation principles, at the expense of developing skills for employability. They go further in asserting that education acts as a kind of social control mechanism:

*Normalisation for people with learning difficulties is often shorthand for recycling through circuits of training that take them further away from the labour market and the opportunity to establish independent relationships.* (2001:206)

Concerns about the nature of lifelong learning have given rise to a debate on the role of teaching in achieving the general purposes described by UNESCO (1996). Sfard (1998) and more recently James and Brown (2005) contend that the debate can be encapsulated in the two basic metaphors of learning as acquisition and participation. Sfard contends that learning has traditionally been defined as a commodity, and as learners acquiring knowledge, skills and understanding, but that learners should instead be seen as active participants in the learning process and as becoming members of communities of learning. She goes further in suggesting that these two metaphors represent different views of the mechanisms of learning. While recognising the crudeness of the exercise, James and Brown used these metaphors to analyse a series of research projects on teaching and learning, concluding that while school-based projects were more characteristic of the acquisition metaphor, those in the post-compulsory sector tended to fit the participation metaphor. Both Edwards (2005) and McGuiness (2005), however, warn against taking these metaphors too literally.
Edwards argues that ‘deep’ learning – i.e., learning characterised by understanding – relies on learners’ active participation in order to acquire new concepts and ideas, while McGuinness suggests that these two kinds of learning, knowing that (acquisition) and knowing how (participation), tend to co-exist, and ‘at the most expert levels of human performance thinking is doing’. (2005:33). For McGuinness these metaphors belie the complexity of the debate about the nature of learning and the influence of the different theories of learning on that debate.

So these metaphors are to some extent interdependent, and they take us back to the debates about the relationship between theory and practice discussed in Section 2. But they also inform the literature in our area of research, and the studies we reviewed show that besides educational needs there are also the social and human needs of inclusion and participation that should be addressed as part of the teaching and learning process for people with learning difficulties. We concluded then that it was the combination of purposes, outcomes, contexts and teaching strategies that could help to explain the way theories of learning underpinned the literature and that would enable us to address the research questions.

**A proposed conceptual framework: having, being and doing**

Although single theory models help to review and make sense of the literature regardless of which group of learners or which educational context the literature is focused on, this approach fails to provide a more systematic frame through which we can articulate which theories of learning underpin the learning of adults. An additional objective of this research was to identify effective teaching or training approaches. But effectiveness is dependent on purpose. If the aim is to help students remember facts, then direct instruction is most effective. If, on the other hand, our aim is to foster understanding, then approaches that engage students’ active participation are more effective, (McInerney, 2005). Different purposes demand different methods. We therefore used a person-centred model to explore a different but integrated set of purposes. Here the articulation of a set of purposes is viewed from the perspective of the person, and aims to provide a more holistic frame of what learning should aim to achieve. It is based, as Merriam (2004) claims, on the understanding that the notion of person is complex and multi-faceted. Thus reviewing how people learn involves looking at the individual learner from multiple perspectives.
Learning, as we have claimed so far, is a matter of individual psychological traits, but also dependent on internal and external motivational factors and on what kind of knowledge is considered to be needed by each individual at any point in time. In order to clarify this, and building on the UNESCO model described above, we distinguished three interrelated person-centred purposes: being, having and doing. The relationship between these three purposes and their interdependence is illustrated in Figure 1. We do not see each of these three purposes as mutually exclusive but rather as three different facets of lifelong learning.

**Figure 1**
Purposes of learning

**Key**

B – Being
H – Having
D – Doing
In this model the purpose of being (or learning to be and learning to live together) relates to both the individual characteristics required of a learner, but also to the social and spiritual dimensions of learning and living (UNESCO, 1996). In terms of learning, the person as an individual is required to have knowledge of themselves, and to be self-motivated, self-regulated, self-confident, able to set targets and solve problems. The social and spiritual aspect of being, on the other hand, relates to the fact that a person needs to be accepted as part of and participate in the wider community through which we develop a sense of ourselves and our own identity. In terms of learning, this means that the person needs to develop communication and interpersonal skills as well as a sense of their own purpose and fundamental beliefs (Merriam 2004). However, it also stresses the fact that learning happens within a community, and that teaching should therefore foster the notion of learning as both an individual and a collective or group process, so that the learning of the whole is greater than and different from the sum of the individual parts.

The need to have skills for being brings us to the purpose of having (learning to know). Once again, the learner is viewed both as an individual but also as a member of a community. Thus what skills, knowledge and understanding a learner requires are both dependent on the development of his or her wishes and desires, and on what society requires of its members. Having is not detached from being, but intimately related to it. In this respect, having denotes a more objective perspective on learning, since it is possible to assess the degree to which learners acquire particular knowledge, skills and understanding. In terms of learning, having deals with both knowing how and ultimately knowing why. However, it also includes more fundamental purposes, like having equal rights, and thus education is not just a matter of gaining a qualification or acquiring knowledge about rights (Test, Fowler, Wood, Brewer and Eddy 2005) but also, and most importantly, to use such knowledge to ensure a person’s place as a citizen. Teaching therefore can be viewed as instruction, and developing understanding, but also as creating opportunities to improve people’s quality of life.
If being emphasises the emotional and psychological aspects of learning, and having focuses on knowledge, doing (learning to do) as a purpose is about learning to participate, but also being enabled to participate. At the educational level it means having the opportunity to learn through being an active learner, that is by solving real-life problems, by incorporating one’s knowledge, by making sense of things with reference to one’s own life. On the other, it also points to the socio-cultural dimension of learning, and the fact that the way in which we learn is mediated by the norms and rules of the different communities in which we live and work, which in turn contribute to our sense of ourselves and who we are and who we might become. However, the central purpose of doing is that of fostering the form of knowledge that is required to look outward and to engage with the world (Edwards 2005): learning to live together. Doing therefore refers to what people with difficulties in learning can do, but also what they are enabled to do. It deals with creating the educational opportunities for active learning, but also for learning and practising self-advocacy and self-determination as building blocks for personal and social empowerment. In the final analysis, while being is about individuals expressing their wishes and desires, doing is about pursuing them.
This section presents the main findings from the research literature from 1996 onwards on the learning and teaching of adults who experience difficulties in learning. We have already suggested that ideas of and about learning influence and are influenced by a complex range of factors, including not only who the learners are, and how learning occurs, but also where learning takes place and what purposes it aims to fulfil. In this respect, the literature describes a wide range of purposes of learning, suggesting that we need to conceptualise the processes of teaching and learning equally broadly through drawing on a wide range of ideas about how people learn best. The focus in this section is on such ideas and their influence on teaching strategies and approaches. In a nutshell, we propose that revisiting the underlying purposes of provision will lead to greater clarity in deciding which conceptual and practical strategies are best suited to enable their achievement.

In this section we explore the literature by analysing it in relation to each of the three broad purposes of being, having and doing, and from the perspectives of outcomes of learning, learning processes and teaching. To understand and interpret the different philosophical stances adopted by the authors and how these have influenced their research, connections are made with the three broad theoretical perspectives on learning outlined in Section 2, namely:

- behaviourism
- cognitivism/ constructivism
- socio-cultural models.

Although the boundaries between being having and doing are somewhat artificial, and we recognise the overlap and interdependency of each of these purposes, we have nevertheless defined each as follows:

- being (developing a sense of and belief in one’s own identity and who we want to become)
- having (acquiring new skills, knowledge and understanding, and accessing new opportunities)
- doing (becoming empowered to participate, and being enabled to participate).

The literature is analysed from these three perspectives, and in relation to the outcomes of learning, the learning processes and the implications for teaching.
One of the main reasons for learning is to achieve certain outcomes. Outcomes of learning describe the kind of outcomes that are associated with each of the three purposes. The term outcomes of learning has been adopted in preference to that of learning outcomes since this more easily encompasses the broad range of outcomes that are implied by the three purposes described above. The distinction between the two sets of terms made by James (2005) is helpful. He suggests that learning outcomes (meaning tangible skills, knowledge and understanding) can be assessed and measured, whereas the wider outcomes of learning encompasses those aspects that a learner may acquire through participation in the learning process itself, eg greater autonomy, self-awareness, self-confidence.

The sections on learning processes discuss what the literature says about learning in relation to being, having and doing. Learning in general implies a process of development and change, and is a fluid and evolving process. This section draws explicitly on the theories of learning outlined in Section 2 by exploring, through the literature, how each conceptual model can contribute to the achievement of particular purposes.

Finally, the sections on implications for teaching examine the practical implications of these ideas. Taking MacIntyre’s (2003) view of teaching, ‘Teaching is acting so as deliberately and directly to facilitate learning’, these sections describe what research says about how best to facilitate and support learning for people with difficulties.

We begin by exploring the notion of being as a central purpose in developing a person-centred approach to learning.
Being

Outcomes of learning

The purpose of being (or learning to be and learning to live together) broadly relates to both individual characteristics and to the social aspects of learning and living. In terms of outcomes, the person as an individual is required to have knowledge of themselves, to be self-motivated, self-regulated, self-confident, able to set targets and solve problems. More fundamentally Merriam (2004) notes that recent writing on adult learning emphasises the role of emotions in learning, on the body as a site of learning and on the relationship between spirituality and adult learning. The social aspect of being relates to the fact that a person needs to be accepted as a part of and a participant in the wider community through which we develop a sense of ourselves and our own identities, but also to learn how to be a member of that community.

In terms of individual being, the development of self-awareness, self-confidence, self-esteem and self-efficacy are explicitly related to the issue of physical and mental health (Lunsky and Havercamp 2002, Waters 2000, Mental Health Foundation 2002, Arthur 2003). The report of the Mental Health Foundation concluded that 40% of children and young people with learning difficulties also have mental health problems, compared to 10% of the general population, and stress the important role that education has in preventing the development of mental health problems. Lunsky and Havercamp argue that women with intellectual disabilities may well experience proportionally higher rates of mental health problems than males, if rates among the female population overall are considered, citing biological as well as psycho-social reasons, such as higher incidences of physical and sexual abuse.

Moreover, the development of self-confidence, self-esteem and self-efficacy also enables learners to cope with and participate in the multiple transitions that occur throughout our lives (Martin and Marshall 1996, Dee 2000, Dee et al. 2002). These periods of flux and change can be stressful and difficult, and there may be insufficient recognition of the emotional impact of changes in their lives which leave people feeling fearful and isolated (Arthur 2003). Education has a significant part to play in developing an individual's communication skills, self-esteem and sense of purpose, as well as their self-efficacy and autonomy.
Of course, these dimensions of ‘being’ are all interrelated. As far as social beings are concerned, Lave and Wenger (1991), in their seminal work on activity learning theory, emphasise the role of social groups in the transformation of individual identities through membership of a ‘community of practice’. For instance, a young person may change from acting and feeling like a ‘student’ to describing themselves as a hairdresser, an engineer, a nursery nurse or a teacher. Different settings can transform how we see ourselves, as well as providing new insights into who we are and who we want to become. Yet although the place of vocational preparation in transforming young people’s identities and how they think about themselves (becoming) has been widely discussed in the general FE literature (see, for instance, Young and Lucas 1999, Colley, James, Tedder and Diment 2003) much less attention has been paid to this concept in the field of learning difficulties. Research into the lives of people with learning difficulties shows that more often than not their identities are bound by the assumptions and expectations of others about who ‘people with learning difficulties’ are and what is best for them (Baron, Riddell and Wilson 1999, Armstrong 2003). Their research concludes that much post-school education acts as a kind of social control mechanism rather than one of self-realisation.

**Learning processes**

The articulation of who we are and who or what we want to become is a complex task, and most of the thinking in this area has been strongly influenced either directly or indirectly by constructivism and socio-cultural theories (Dee, Florian, Porter and Robertson 2003). In relation to individuals, it means locating the person at the centre of the learning process which is tailored around the person’s needs, but above all his or her aspirations. The idea of ‘person-centredness’ is important across all phases and stages of education, as well as in other sectors such as health and social care. In essence, it implies a shift in the balance of power between individuals and the services they receive by enabling individuals to have a greater say in the planning and design of services. In the care sector, *Valuing People* (DoH 2001) proposed that a person-centred approach to planning should underpin the support of adults with learning difficulties, and is concerned with the whole of a person’s life, of which learning new skills and having new experiences may make up one part.
In education, this approach is sometimes called ‘personalised learning’. The idea applies to all learners, and emphasises that teaching and learning are most effective when they are based on a learner’s own needs, interests and aspirations (Leadbetter 2004). Achieving genuine participation of the learner particularly with learning difficulties is easier said than done, however. Everson and Zhang’s (2000) evaluation of person-centred planning processes concluded that the greatest challenge is to engage in ways that are meaningful to the individual while Dee (2002), Laragy (2004), Mansell and Beadle-Brown (2004) and Routledge and Gitsham (2004) all suggest that the person’s voice and/or that of their families is often lost in the bureaucracy of planning processes, and overridden by the taken-for-granted assumptions of professionals. In contrast, accounts from practitioners working on the LSDA/LSC’s DDA projects (www.lsda.org.uk/dda) described how through listening to learners they changed both the content of their programmes and how they taught them.

Implicit in the notion of person-centred learning is the notion of choice. Ball, McCrea and Maguire (2000) suggest that the choices that we make are a way of representing ourselves and of expressing our identities, opportunities that people with learning difficulties can be denied. Rusteimer (2000), for instance, concluded that students with learning difficulties in FE are more likely to be vocationally ‘positioned’ by their tutors, and that decisions about which course a student will follow are based on the assumptions of staff rather than on learner preferences. This finding is borne out by Stalker and Harris’s (1998) review of literature on choice which concluded that the amount of choice an individual is afforded varies between cultures, settings, issues and individuals. Opportunities for choice-making are limited more by the attitudes and the nature of services than an individual’s innate abilities.
Some have argued that assumptions about who people with learning difficulties are and who they should become, as opposed to could become, stem from a general failure to recognise and respect the unique nature of the lived reality of their lives (Armstrong 2003). Yet research that informs the development of approaches that foster a sense of identity or ‘being’ has been conducted. Writing from a socio-cultural perspective, Klotz (2004) describes work that seeks to understand the ‘lived realities’ of people with severe learning difficulties rather than expecting them to conform to social norms. He describes early attempts to understand the apparently random and intuitive behaviour of people with severe and complex learning difficulties, eg rocking, flapping, shouting. Through mirroring and responding to these behaviours, Goode and Gleason concluded that rather than being random, the behaviours had real meaning and represented ways of communicating. Their work challenged approaches that relied on behavioural techniques alone, and the wish to make those with severe learning difficulties conform to socially accepted patterns of behaviour (normalisation). Instead they argued for approaches that valued and acknowledged an individual’s unique patterns of engagement, such that people with learning difficulties had more control over the forms of socially acceptable behaviour that they themselves valued.

We turn now to consider the implications of these ideas for teaching, since decisions that are made about how to teach just as much as what is taught can have a profound influence on the development of an individual’s sense of self and social and emotional being.
Implications for teaching

A key implication for teaching is finding ways of giving more control and greater participation in the learning process for learners, including those with the most profound difficulties in learning. Teaching therefore becomes a process of facilitation. Miner and Bates (1997) and Sanderson (1998) describe how using person-centred techniques such as developing multi-media personal profiles, futures mapping and action planning can help young people to feel more prepared, and thus more involved and in control during transition planning meetings. Ware’s (1996) work on interactivity, contingency sensitive environments and responsiveness have helped practitioners to communicate more effectively with people with profound and complex learning difficulties through becoming more aware of the range of ways through which learners may communicate, eg through eye pointing, gesture, facial expression and so on. Similarly Nind and Hewitt (2005) have developed an approach they term Intensive Interaction, influenced by early caregiver interactions. The approach involves giving control to the learner through respecting and responding to the individual’s own initiatives and ways of communicating. This work, and that of Ware, represents an advance on early behavioural approaches through the application of teaching techniques that rely not on normalisation principles, ie expecting the learner to conform to a set of externally imposed behavioural norms, but instead adopting a person-centred approach in which the learner is supported to take control of the learning process.

Working within the socio-cultural framework Sfard and Prusak (2005) concluded that individuals help to create their identities through their actions and the stories that they tell about themselves. A number of studies have focused on the use of storytelling with people with learning difficulties (Grove and Park 1996, Hill, Grove, Elders, Graves, Green, Marshall and Meader 2005), or arts and literature (Cocking and Astill 2004, Logan 2002) in enabling people to learn more about themselves and who they wish to become. Using Felce and Perry’s (1995) quality of life domains, Hill et al. found that belonging to a community-based storytelling circle impacted on participants’ social and emotional well being and personal development, as well as providing engagement in meaningful activities. Cocking and Astill (2004) claimed that the use of poetry and literature, drama and the arts, improved the participants’ concentration skills and their ability to express themselves, besides teaching them how to self-regulate their challenging behaviour and to work in a group.
As these studies also demonstrate, learning is not an isolated event but happens within a community. Teaching should therefore be sensitive to the notion of learning as both an individual and a collective or group process. In this way the person learns about themselves while simultaneously acquiring social competence (Logan 2002, Long and Holmes 2001, Lunsky, Staiko and Armstrong 2003). The study by Long and Holmes focused on teaching a group of adults with moderate learning difficulties to become more aware of how to keep themselves safe. The Lunsky et al. study focused on helping women with intellectual disabilities to know about their bodies and seek help and advice. Along the same lines, Logan (2002) points out that the learners with severe learning difficulties who took part in an arts-based programme enjoyed being part of a group and actively participated in the discussions.

A consistent finding from research is that many people with learning difficulties experience loneliness, isolation and depression (Arthur 2003, Mental Health Foundation 2002, Riddell, Baron and Wilson 2001, Anderson, Faraday, Prowse, Richards and Swindells 2003). Friendships that do exist are often with other disabled learners rather than non-disabled people, or what Riddell et al. describe as ‘bonding’ rather than ‘bridging’ social networks. Circles of Friends (Jay 2003) and community activities as well as peer support programmes all have a part to play in extending social networks. The value of social skills training in fostering friendships taught in isolation from real situations has been questioned, however (Hayhoe 1999, Moore and Carey 2005). Both these studies report on successful projects designed to foster friendships between disabled and non-disabled learners in a range of real-life settings.
To conclude, the provision of educational opportunities rests on the dynamic and fragile balance between what people want to be and what they need to be in order to become proactive agents in changing and shaping their lives (Alexander, Byers, Dee, Hayhoe, Lawson, Singal and Smith 2006). Hence, as well as developing skills that have immediate and practical application, the role of education is to enable learners to articulate and act on their ambitions, and indeed appreciate their personal agency in shaping their own identities. Providing opportunities is necessary but not sufficient. Learners also require support in developing skills and capacities to take advantage of the opportunities available to them, through, for example, being supported to reflect on their experiences and achievements and identify what they need to learn and do next. Implications for teaching need to be sensitive to all these considerations. In the next section we consider learning and the development of skills, knowledge and understanding that help to provide such access.

Having

Outcomes of learning

We have defined the purpose of ‘having’ as those aspects of learning that relate to an individual’s skills, knowledge and understanding, as well as having access to the opportunities for learning. With regard to those with learning difficulties, participation in learning activities has often been considered sufficient in itself, without regard to what an individual actually learns, so that teaching strategies and processes may become an end in themselves. Debates about the acquisition of skills versus engaging in activities for their own sake are amply illustrated through the research into vocational training. As Riddell, Baron and Wilson (2001) argue, any work-related training that is available tends to emphasise the social benefits of the experience of training rather than the expectation that it will lead to a job. They suggest that much work-related training for adults with learning difficulties emphasises independent living and social and life skills at the expense of acquiring specific vocational skills. Daniels and Cole (2002) suggest, in relation to young people with emotional and learning difficulties, ‘the challenge is to combine a focus on process (means) with a concern for outcome’.
Debates about the value of process *versus* learning outcomes are also to be found in the literature on multi-sensory approaches to learning for people with profound and complex learning difficulties (Dee *et al.* 2002). Whereas early multi-sensory environments increased the level of stimuli, eg lights, sounds, movement, smells, taste, without regard to what the learner might be gaining, more recently commentators have been concerned to stress multi-sensory approaches that do not rely on specifically designed environments. For example, a small-scale evaluation by Mitchell and van der Gaag (2002) of a multi-sensory programme using art, music and literature based on the story of Odysseus and designed by Grove and Park (1996) found that both the participants who had profound and complex learning difficulties demonstrated increased levels of interaction with objects, and people particularly, during the sessions themselves.

Another term for learning outcomes in FE is 'statements of competence'. These specify the skills, knowledge and understanding that learners must acquire in order to achieve particular vocational qualifications. These are tightly linked to funding – colleges are funded on the number, level and type of qualifications that their students gain. The upshot of this approach has sometimes led to the neglect of wider and sometimes unplanned or unintended consequences of learning. James (2005) concludes that this narrow interpretation means that learning outcomes are specified more for the benefit of organisations and policy-makers than learners.

In many ways, James’ criticisms of the narrow focus on learning outcomes fuelled by the funding regime mirrors debates about the direction and quality of much provision for people with learning difficulties raised by a number of authors. The FEFC inspectorate in 1999 concluded that only a minority of external awards actually enhanced students’ learning, and that too much time was spent in completing tasks with little relevance to the student (FEFC 1999). Tennyson made a similar point in 2002, when she argued that the acquisition of qualifications was less important than developing life skills for learners with learning difficulties. More recently, Wright concluded that the combined effect of colleges’ failure to take account of learners’ own aspirations combined with students being placed on inappropriate courses has lead to ‘segregation, patronisation and inequity’ (2006:38).
These debates over the merits of process versus outcomes can lead to an unhelpful polarisation, since processes can influence outcomes. *How* we learn can influence *what* we learn just as much as *what* we learn is influenced by *how* we learn.

The development of new skills, knowledge and understanding enables learners to access new opportunities. These include increased levels of concentration or problem-solving skills as well as communication, which can be viewed both as a fundamental tool for mediating social learning as well as a set of skills. For example Test *et al.* (2005) explore the place of communication in developing students’ capabilities to act as self-advocates not necessarily as part of the wider advocacy movement but as advocates for themselves in their everyday lives. So as well as the skills of communication, for example, listening or using assistive technology, they list components such as assertiveness, negotiation, articulation and persuasion, all of which enable students to engage with new opportunities.

New opportunities might also include participation in person-centred planning processes which should in turn open up new opportunities and an enhanced quality of life. To support learners in this process Neumayer and Bleasdale (1996) emphasise the need to teach choice-making skills, while McIntosh (2004) argues that the development of communications skills is at the heart of person-centred planning processes, particularly for learners with profound and complex learning difficulties. So ‘having’ represents the acquisition of new skills, knowledge and understanding, which in turn enhance learners’ capacity to participate in the learning process.

**Learning processes**

Bredo (1997) argues that different ideas about learning have different social consequences. Examples include the influence of behaviourism on vocational training, discussed above, or the influence of cognitivism, particularly developmentalism, on the literacy and numeracy curriculum which is now explored.
The Piagetian, stage-like approach to learning suggested that children progressed through a distinct set of cognitive stages, moving from concrete to abstract modes of thinking, or what can be described as hierarchies of thought. This approach, among others, has influenced the design of literacy and numeracy curricula which set out clear stages through which people are expected to progress in order to acquire new skills. But constructivists argue that all subject disciplines are human constructs and interpretations of human experiences, and that this developmental approach is only one way of organising subject matter. The developmental approach has been criticised for being too rigid in assuming that only after acquiring certain fundamental skills is it possible to function successfully in society (Koenig 1992, McCall and McLinden 1997). The literature shows how children and adults with a range of learning difficulties can learn to function successfully through the use of access strategies, and through support, to develop alternative coping strategies, eg problem-solving, which enable them to carry out everyday tasks that were once thought of as too complex or demanding (Porter 2003). On the other hand, a review of 28 studies in the US (Xin, Grasso, Dipipi-Hoy and Jitendra 2005) which looked specifically at the teaching of purchasing skills to children and adults with learning difficulties found that, while teaching what they term ‘by-passing skills’ was beneficial, those who had mastered the pre-requisite money calculation skills, eg counting on, were more proficient at handling purchasing tasks.

A further dimension of developmentalist thought that has had a long-lasting impact on practice is that the acquisition of certain skills is linked to particular ages and stages of development. Neuroscience or ‘brain research’ has shown, however, that there is no critical period for learning, but that we continue to learn throughout our lives, although there may be points during the lifespan when learning particular skills is easier than at others (Goswami 2004).
An idea based in early cognitive psychology, and one that has caught the imagination of many practitioners in further education, is that of learning styles. The concept was endorsed by *Inclusive Learning* (FEFC 1996) that emphasised the need for teachers to identify and accommodate learners’ individual learning styles as the basis for designing programmes that would in turn help them learn more effectively. Essentially learning styles research is based on the idea that individuals have different preferences and styles of learning, and that these can be grouped or categorised in some way (Coffield et al. 2004). These models and others like them can be ranged along a continuum from those that regard individual learning styles as relatively stable and innate to those models that are based on the belief that styles or preferences are influenced by context and experience, and are therefore fluid and open to change. Supporters of the former school of thought advocate working with an individual’s learning styles, matching strategies to style. Those who believe that styles are fluid, and the result of an interplay between the individual and their environment, place more importance on personal motivations and previous experience. Helpfully, Adey, Fairbrother, William, Johnson, & Jones (1999) concluded that teaching should cater for a range of learning styles.

Research into learning styles and people with learning difficulties is limited (Adey et al. 1999) although there has been research into developing learning strategies and learners’ metacognitive processes in relation to school-age pupils (see for example Elliot 2000 and Male 1995, 1996). Agran, Blanchard, Wehmeyer and Hughes (2002) suggest that learners are more likely to acquire strategies such as problem solving if they are embedded in the natural processes of the classroom or workshop.

More generally, the literature emphasises the importance of relating learning to the lives and experiences of learners, making connections between formal settings (for instance, college or training schemes) and informal settings (home, community) to develop comprehension and assist in the transfer and generalisation as well as the maintenance of skills. This is achieved through contextualising and situating learning in real-life experiences which are meaningful to learners, while at the same time allowing for the acquisition and practice of new skills in safe and controlled settings. This therefore implies a pragmatic blend of strategies that draws on behavioural, constructivist and socio-cultural theories of learning, and we turn now to considering their implications for teaching.
Implications for teaching

A number of studies were located either explicitly or implicitly in constructivist and socio-cultural models of learning (Coben, Colwell, Macrae, Boaler, Brown and Rhodes 2003, Bayash, Outhred and Bochner 2003, Faragher and Brown 2005, Jones Pring and Grove 2002, Moni and Jobling 2001, Young, Moni, Jobling and Kraayewoord 2004). ‘Teaching’, as Young et al. contend, ‘should be centred around the needs and interests of the adults rather than limited to a pre-determined set of functional skills,’ (94) and therefore ‘...the environment for literacy activities should incorporate all activities of daily programming, and not just those related to specific survival and functional skills’ (95). For instance, Moni and Jobling’s two-year literacy project used themes and activities located in the learners’ everyday lives involving family, friends, popular culture and the wider world. Teaching approaches involved direct teaching, demonstrations, scaffolding and group activities. Faragaher and Brown argue for a lifelong approach to the teaching of numeracy for adults with Down Syndrome. Numeracy teaching should be guided by the principles of quality of life: having choice, a positive self-image and empowerment, contributing simultaneously to the other underlying purposes of ‘being’ and ‘doing’.

Browder and Grasso’s (1999) extensive review of mainly US research into the teaching of money skills to individuals with a range of learning difficulties found that the focus was mainly on purchasing skills. They concluded that, while this was clearly useful, the contexts for developing money skills should be broadened to reflect the full range of contexts in which money is used in everyday life, eg banking, saving, budgeting. Second, they found that no one way of teaching was more successful than another, but that a combination of direct instruction, including the use of techniques such as prompting and fading, combined with ‘simulations, role-plays, natural cues and training in multiple settings’ was likely to be most effective (306). Finally, they advocate the need to develop alternative strategies to teaching the use of money that do not rely on pre-requisites or hierarchies of skills. Although Porter’s (2003) research has been mainly with children and young people, it represents one of the few UK-based studies of numeracy among learners with more severe learning difficulties. She stresses the importance for teachers to understand the difficulties a learner may have through exploring how learners approach particular tasks and the affective as well as the cognitive demands of mathematics.
Assisting students to transfer and generalise their learning means actively making links between settings including training care staff to reinforce social, communication and literacy skills (Bochner, Outhred and Pieterse 2001, Dobson, Upadhyaya and Stanley 2002, Jones et al. 2002, Moni and Jobling 2001). The importance of linking the acquisition of self-care skills to people’s everyday lives are emphasised by Lunsky, Straiko and Armstrong 2003. The authors emphasised the important role of care staff in helping women to generalise their newly acquired skills during visits to the doctor or hospital. Lunsky et al. devised a programme that included health education, coping skills, exposure to medical settings and assertiveness and empowerment training. Skills were developed through using simulated as well as real-life settings. The women worked together in groups, either discussing their worries or using role-plays, but they also had the opportunity to talk to doctors and nurses on a one-to-one basis. As a result, the participants improved their levels of self-confidence and felt less anxious about visiting the health centre.

Approaches to maintaining skills as students transfer between settings on an everyday basis is reflected in the writings of Dee et al. (2002) and McIntosh (2004). Strategies include the development of communication dictionaries and passports, particularly important for learners who rely on alternative or augmentative communication. They enable key people in the learner’s life to have a shared understanding about how best to communicate with the learner without having to start from scratch each time the learner moves between settings.

The importance of contextualising learning is also reflected in the literature on vocational training. There has been a philosophical shift in thinking away from work-readiness or ‘train and place’ to a focus on ‘place and train’ (Pozner 1997, O’Bryan, Simons, Beyer and Grove 2000): that is, the person is supported to develop the skills needed to do a particular job in the workplace rather than on discrete vocational training programmes. But just placement in the workplace does not guarantee that learning will occur – the concept of Supported Employment encompasses the full range of support that a person requires, including job-specific skills, travel training and social and emotional support. The literature highlights two aspects of vocational training: the acquisition of job-specific skills (Wall and Gast 1999) and the social skills required to survive in the workplace (Chadsey and Beyer 2001, Holmes and Fillary 2000, Reid and Bray 1998, Tomblin and Haring 2000).
The development of job-specific skills combines specific behavioural techniques such as target setting, task analysis, backward chaining and modelling with simulated or real-life settings. Holmes and Fillary adopted a socio-linguistic approach to help adults with learning difficulties improve their small talk in the work place. Using classroom-based activities such as discussions on when and where people use small talk, combined with role-plays, they also identified people willing to act as natural supports in the workforce to facilitate ‘chatting.’ In this instance, Holmes and Fillary were supporting young people’s access to new settings and a ‘community of practice’, which in turn supports new learning. Chadsey and Beyer warn, however, that much more research is needed into this aspect of work.

In summary then, teaching is viewed as instruction and developing understanding, as well as creating opportunities to improve people’s quality of life. Approaches are influenced by all three theoretical perspectives, and generally combine strategies drawn from each in pursuit of particular learning goals. But as we have seen, ‘having’ is also concerned with access to new opportunities and the knowledge required to participate successfully. This leads us to the concept of ‘doing’ and its implications for learning and teaching.

Doing

Outcomes of learning

If ‘being’ is about developing a sense of self, and ‘having’ the development of skills, knowledge and understanding, then ‘doing’ is about becoming empowered to participate in society as an equal member. Doing represents the ‘coming together’ or enactment of being and having. It is, as Edwards (2005) describes, about being able to look outward and engage with the world and to develop the capabilities to ‘adapt, be flexible, to solve problems and to communicate interpersonally’ (Torres-Velasques 2000:68). Three bodies of literature combine to contribute to our understanding of the concept of ‘doing’ and what it means for learners and learning: self-determination, self-advocacy and empowerment. These can be characterised as philosophies, processes or outcomes, or all three. The literature identifies slightly different but overlapping sets of desirable outcomes that can be associated with each, and these are summarised in the table below.
The extensive (and mainly US) literature on self-determination relates principally to compulsory school settings (Malian and Nevin 2002, Karvonen, Test, Wood, Browder and Algozzine 2004, Wehmeyer, Field, Doren, Jones and Mason 2004). Wehmeyer et al. distinguish between the philosophical and empirical rationales for self-determination. The first emphasises the rights of people with learning difficulties to assert control over their lives (doing) while the second emphasises better educational outcomes (having). They also argue that through developing students’ self-determination skills they are better equipped to participate in everyday life as well as in wider social movements, to assert themselves and make their voices heard. For instance, Kilsby and Beyer (2002) applied the principles of self-determination through using option and open-ended questions to develop the confidence of job seekers with learning difficulties to assert their views about which jobs they preferred.

Table 1
Outcomes associated with self-determination, self-advocacy and empowerment

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<tbody>
<tr>
<td>autonomy</td>
<td>knowledge of self</td>
<td>self-efficacy</td>
</tr>
<tr>
<td>problem solving</td>
<td>knowledge of rights</td>
<td>participation and collaboration</td>
</tr>
<tr>
<td>persistence</td>
<td>communication</td>
<td>having a sense of control</td>
</tr>
<tr>
<td></td>
<td>leadership</td>
<td>meeting personal needs</td>
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</table>

- taking personal action
- recognising and using sources of support
- gaining access to resources
Test et al. (2005) argue that the development of self-advocacy skills is a step towards self-determination. Skills should be developed throughout compulsory and post-compulsory education, and these skills may be used at the level of the individual as well as the group. However, the relationship between people with learning difficulties and the self-advocacy movement as a whole is a matter for debate. The disability movement in general has embraced a social model of disability, working through their writing and research as well as direct action to remove those structural barriers in society that have in the past disadvantaged disabled people. However, Walmsley (2002) claims that the relationship between the two groups is at best tenuous, and that people with learning difficulties have tended to rely on others to advocate on their behalf. On the other hand, Chappell, Goodley and Lawthorn (2001) argue that through the very act of participating in the self-advocacy movement people with learning difficulties may be ‘doing’ the social model through bringing their views and experiences into the public arena. It is up to researchers and others working with them to articulate these actions and search for innovative research practices (see, for example, Porter 2005, whose account of a research project with a self-advocacy group attempts to embrace these principles).

In contrast, Armstrong (2003) suggests that the agendas of many self-advocacy groups have been hijacked by service providers as a tool for evaluating services rather than being driven by the interests and concerns of advocates.

Arguably, the development of self-advocacy and self-determination can both contribute to empowerment and operate at several different levels – that of the individual, the group and community. The concept of empowerment, like those of self-determination and self-advocacy, grew out of the Civil Rights movement of the 1960s, and according to Dempsey and Foreman (1997) is used to describe a desirable outcome for a range of services, eg health, education, social services. The individual characteristics listed above in Table 1 can contribute to feelings of empowerment (self-efficacy, having a sense of control), fostered by creating opportunities through which people are enabled to share power and decision-making.
If these represent the desirable outcomes of learning then a fundamental purpose of education, and lifelong learning in particular, is to lead to an individual’s social and economic empowerment. In practice, the purposes of lifelong learning range from those that are largely economic, where lifelong learning seeks to enhance an individual’s contribution to the economy (human capital), eg vocational skills training, to those where the principle aim is individual development and enhanced quality of life (social justice and social capital), eg community-based projects. Taylor (2005) suggests that, in the UK, the rhetoric of citizenship and social cohesion does not reflect the real economic focus of most lifelong learning initiatives. For example, the government has invested considerable sums of money in promoting adult basic skills as a means of enhancing employability to the exclusion of other aspects of adult education. Others argue (OECD 2003) that it is difficult to separate these different purposes, and that enhanced employability can lead to a better quality of life and greater social inclusion.

Which policies are more likely to lead to social and economic empowerment of people with learning difficulties? Bates and Davis (2004) suggest that policies that promote social capital, which they describe as ‘social networks and norms of trust and reciprocity’ (196), that invest in building networks and communities and that support individual participation in those communities, are more likely to be more socially inclusive of people with learning difficulties. Unlike Taylor, they are more optimistic about the general shift of focus and quality of mainstream opportunities and the participation in these by people with learning difficulties.
On the other hand, Riddell et al. (2001) have argued that people with learning disabilities are excluded from mainstream lifelong learning, and are bound instead by the social relationships that are formed within the special provision that most of them attend. Research tends to show that even where people with learning difficulties do have jobs in open employment through supported employment schemes or other means, they are often socially isolated and dependent on established family ties and friendships rather than expanding their social networks through the workplace (Kilsby and Beyer 1996, Reid and Bray 1998). Research by Baron et al. (1999) concluded that economic access depended on fundamental shifts in how people with learning difficulties are seen. Such shifts in attitude can only be achieved through ‘contesting imposed negative identities’ (498) through individual and collective action brought about through empowerment. We turn now to considering the implications of these ideas for learning.

**Learning processes**

The context in which learning takes place is crucial (Lave and Wenger 1991) since it influences not only what is learned but how it is learned through the social interactions that occur as part and parcel of everyday activity. The relationship between social networks and learning is reflected in this quotation from Field (2005): ‘People whose social capital consists mainly of close ties and where their bonding connections are with others who have low levels of human capital, are very likely to enjoy very limited access to ways of acquiring and generating new skills and knowledge’ (140). This empowerment is developed as much where learning occurs, and with whom, as through the methods of teaching that are used.
We have already seen how learning communities can either challenge or perpetuate the identities of learners and the assumptions of others (Riddell et al. 2001). But as Merriam (2004) also points out, learning communities can reproduce inequalities within themselves so that certain hierarchies persist with some members of the community privileged over others on the basis of their status, race, class, gender or disability. So, for instance, those with learning difficulties may continue to be marginalised in the allocation of college resources or access to facilities. Drawing on feminist ideas, Merriam suggests practical ways in which assumptions may be challenged within learning communities through, for example, thinking about the nature of the knowledge that is taught and the methods and materials that are used, as well as the underlying assumptions of staff about who their learners are. So in developing self-advocacy, for instance, Test et al. (2005) propose that students with learning difficulties need to learn about their rights as well as developing their leadership and communication skills. Challenging staff assumptions implies that they may have to surrender power and control. Research by Kilsby and Beyer (1996), and more recently Redley, Dee, Weinberg, Clare, Holland and Dearden (2005), has shown how those responsible for supporting participation, whether in the workforce or in a self-advocacy group, can get in the way of genuine social interaction and empowerment. For instance Redley et al. (2005) found that many of the communicative intentions of members of a self-advocacy group were either missed or misinterpreted by those who were supposed to be supporting them.

Shifts in thought about how best to empower individuals to become active and participating members of society is illustrated by the changes that have occurred in relation to work preparation programmes discussed in the previous section. There has been a move from a ‘train and place’ approach in which people were required to reach a particular level of competence before being considered ready to enter the workplace (Pozner 1997) in favour of a ‘place and train’ model, recognising that training is likely to be more effective if support is provided in and around the workplace itself (Beyer 1995, Pozner 1997). This model recognises the importance for trainees to develop the implicit or tacit knowledge inherent within the work setting, eg how to get on with peers, who to ask for help, if they are to become active and participating members of the workforce.
A further model of learning that has attracted renewed interest in recent years is that of community development. Based on the work of Paulo Freire and Boal in the 1960s and 1970s, communities are ‘supported to develop critical awareness through shared investigation and analysis leading to collective action and positive change’ (Taylor 2000:17). The participants are the experts, and learning occurs through the process of working together towards a common goal. Included under this broad umbrella are performing arts groups that provide enabling contexts that ‘promote the capacities of people with learning difficulties’ (Goodley and Moore 2002:12). The process of performance (through theatre, music, film, dance and so on) creates the means through which dialogue and communication can occur both individually and collectively, thereby providing a context for self-advocacy. But they also provide training in performance arts as well as practical, social and emotional support. This approach fits with Leadbetter’s (2004) description of personalised learning through community regeneration programmes, and Merriam’s notion of empowerment through the learning process described above.

**Implications for teaching**

So if learning is to lead to ‘doing’, then models of teaching are required in which learners are engaged as equal partners in the learning process. Dempsey and Foreman (1997), Wehmeyer et al. (2004) and Karvonen et al. (2004) all conclude that we have no way of knowing at present what kind of practices enhance empowerment and self-determination, and that more empirical evidence is required based on large data sets before firm conclusions can be reached about how best to develop these qualities. Nevertheless, there are steps that can be taken to increase the likelihood that students are able to take more control of their lives and experience a greater sense of empowerment. Much of the literature points to the need for changes in the learning context. With respect to teaching strategies that develop self-determination, Browder, Wood, Test, Karvonen and Algozinne (2001) point out that self-determination requires the creation of opportunities in which it can be practiced and achieved, and advocate the use of experiential and contextualised learning. Field, Sarver and Shaw (2003), while accepting the notion of individual behavioural changes, also stress the need for changing the environment and the social attitudes that can impact on how people are allowed to make choices. The notion of creating opportunities to exercise self-determination is also emphasised by Mithaug (1998), again drawing on the social model of disability in focusing on the learning environment.
Learning is often viewed as a quality-of-life issue. Holst (2000) described a ‘participant-controlled action research project’ (36) in which a range of different methods were used to capture the wishes, thoughts, feelings and experiences of a group of people with learning difficulties living in the community and designed to find out what changes they wanted in their lives. Macaskill’s (2003) account of a community development programme based in Glasgow describes how adults with learning difficulties, service providers, families and carers, and the community, including employers, were all involved. Programmes were designed in collaboration with the adults, and the content reflected a holistic approach to learning that related to all aspects of their lives: sexual relationships, bullying and intimidation, leisure, employment, palliative care, leadership skills, and so on. ICT was used extensively, and the programme established a presence on the World Wide Web, thereby helping to widen social networks.

Facilitating economic empowerment means first and foremost believing in employment as a realistic goal for adults with learning difficulties. The literature distinguishes between work-related learning and work-based learning (Griffiths and Guile, 1999). While the former consists of activities such as visits to the workplace, work shadowing or work experience, the latter involves training in situ, such as Supported Employment. Work-related learning enables students to bring their learning from the formal setting of the college to bear on the informal setting of the workplace, and acts as a means of adjustment and familiarisation to the mores and expectations of the workplace. Yet Beyer, Grove, Schneider, Simons, Williams, Heyman, Swift and Krijnen-Kemp (2004) concluded that although extensive use of college provision was made by day services, colleges rarely gave learners active support in seeking employment, while Jacobsen (2003) found that programmes designed to enable people with learning difficulties to ‘make the jump’ between formal education and employment settings were few and far between. Important elements of such programmes include having senior management support, a belief that real work is an acceptable goal, individualised training programmes based on people’s interests and aspirations, and a knowledge of available work opportunities. The LSDA’s briefing for staff organising work experience for disabled students prompts them to expand the learner’s individual learning plan (ILP) to include the work environment (LSDA 2005).
Beyer and Kilsby (1996) conclude that as far as Supported Employment is concerned, three important elements are required to ensure a successful placement: training for job trainers in systematic instruction, the use of natural support systems in the workplace such as other members of the work force, and the development of self-determination, including the ability to set own goals, plan, monitor progress and adjust own performance. The use of strategies such as verbal rehearsal and self-prompting supported through the use of lists or pictures is advocated (see also the section on Having). Thus yet again we see how strategies can be combined and blended to serve more than one purpose.

Information technology and multi-media approaches have provided a significant means by which people with learning difficulties can be supported to take more control of their lives, increase the opportunities that are open to them and influence the decisions that are made (Paveley 1999) leading to a sense of empowerment. For instance, Cameron and Murphy (2002) and Germain (2004) describe how Talking Mats can be used as a vehicle for accessing young people’s ideas and opinions about themselves and their future. Multi-media profiling, using video, photos, computers, etc, enables people with a range of learning difficulties to present to others a picture of themselves and their lives (Dawkins 2005). Both Lancioni and O’Reilly (2002) and Moore, McGrath and Thorpe (2000) note the impact of ICT in teaching life and social skills to people with severe learning difficulties and autism, since ICT and multi-media approaches can provide both realistic images and a sense of control for the learner over social situations. Research into use of the internet by people with learning difficulties reports favourably on its potential to develop ICT, literacy and social skills (Johnson and Hegarty 2003) while a study of the use of Personal Home Pages by adults with Down Syndrome concluded that the internet has the potential to help people make and maintain friendships (Seale and Pockney 2002) although some may question the risk factors involved here. But as Parsons, Daniels, Porter and Robertson (2005) concluded, ICT demands continuous investment if it is to be seen as a core activity. They argue that ICT is an essential tool in enabling adults with learning difficulties to participate in mainstream activities and lifelong learning.
In conclusion, becoming empowered to participate can be seen as both a moral imperative influenced by the social model of disability and a central purpose of learning. If learning is seen as a quality-of-life issue that emphasises respect for the real lives, experiences and aspirations of people with learning difficulties, then approaches such as those described above that embrace community regeneration and empowerment, offer a real alternative and a possible route for future development.

**Conclusion**

Field, Martin, Miller, Ward and Wehmeyer (quoted in Field, Sarver and Shaw 2003, 339) define self-determination as:

*a combination of skills, knowledge and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behaviour. And understanding of one’s strengths and limitations together with a belief in oneself as capable and effective.*

In many ways this summarises what we have described as the person-centred purposes of adult learning: being, having and doing. Learning should lead to the skills and knowledge (having) and beliefs (being) that enable an individual to become autonomous (doing). Learning is also about understanding one’s own strengths and limitations (having) combined with a belief in oneself (being) as capable and effective (doing). In this section we have proposed that being, having and doing are integrally linked. Decisions about how to teach should be guided by a clarity about underlying purposes. We have argued that learners who experience difficulties in learning will benefit from interventions that draw on behavioural, constructivist and socio-cultural theories of learning through providing access to activities and opportunities, as well as helping learners to consolidate and build on their experiences. More fundamentally, if the goal of lifelong learning is to enable and empower people with learning difficulties to improve their quality of life and to challenge the negative stereotypes and assumptions of others, then it is important to begin to think differently about the nature of much of the provision that is currently offered.
In conducting this review of literature we began with Tomlinson’s view of provision for adults with learning difficulties as something in which learners are fully and actively engaged, and in which teachers and learners are both learners. The ideas contained in the report were firmly located in the social model of disability and the ecological model of teaching that strives for a match between individuals and their learning environment rather than the learner having to fit the environment. In reviewing the current literature on learning and adults with learning difficulties, we have concluded that Tomlinson’s vision can best be achieved through adopting an informed eclecticism about which teaching strategies and approaches to use. As discussed throughout this report, the current position on learning for adults and/or children is not so much concerned with a prevailing view, or that which is ‘right’. Rather, the focus is on combining strategies and blending concepts from different theoretical models in terms of fitness for purpose. We conclude that it is the conceptualisation of these purposes that holds the key to reframing ideas about teaching methods, and any subsequent judgements about their effectiveness.

The following provides a summary of the main findings and their implications for practitioners and policy-makers.

1 Decisions about teaching approaches are most effective when based on an informed eclecticism that draws on a range of theories of learning rather than an adherence to a single theoretical model. At present, beliefs about people with learning difficulties and how best to teach them tend to flow more from ideological positions than an informed view of teaching and learning.

**Implications for practitioners**

- Use a wide range of teaching methods and approaches that draw on different ideas about learning, matched to a clearly articulated set of purposes.

- Take time to consider your beliefs and assumptions about people with learning difficulties and their place in society, and how these influence the nature of provision that you offer and the methods that you use for teaching or training.
Implications for the Learning and Skills Council

- Support the development of effective teacher training that focuses on teaching and learning and that expands the repertoire of teaching methods and approaches, including multi-media approaches to learning, that practitioners have at their disposal.

2 Learning should be purposive. A focus on purpose, rather than outcome, shifts attention away from a reductive, functional and pragmatic notion of learning to a more complex redefinition of learning, one that reflects the emotional and psychological aspects of learning, and the acquisition of knowledge and skills as well as active participation. Teaching methods should be such that they enable these purposes to be fulfilled.

Implications for practitioners

- Take time to articulate what you see as the underlying purposes of your provision, and how they relate to the three purposes of being, having and doing.

- Explore with learners their reasons for wanting to learn and review the implications that these have for what and how you teach.

Implications for the Learning and Skills Council

- Review current funding priorities, targets and mechanisms to ensure that providers are supported in adopting a holistic approach to learning that takes account of the proposed underlying purposes of provision and the aspirations and needs of the whole person.

3 The literature supports Tomlinson’s assertion that teaching methods differ not according to kind but degree. Effective teaching should be governed as much by underlying values and purposes as by what is to be learned, and the learner’s stage of development, their predispositions and their capacities.

Implications for practitioners

- Ensure that learning has meaning for learners through building on their own aspirations and interests.

- Recognise each learner’s unique experiences, motivations and aspirations as fundamental to the learning process.
In the past, participation in activities alone was often regarded as sufficient, without regard for what a student was actually learning. However, process and outcomes are equally important. The nature of teaching methods and approaches can have a profound influence on the development of an individual’s sense of self and social and emotional well-being as well as on their attitudes and beliefs about themselves as learners. But it is equally important that people with learning difficulties acquire tangible learning outcomes regarded by society at large as valuable, as well as by themselves, and that contribute to the fulfilment of their aspirations.

**Implications for practitioners**

- Focus on both process and outcomes to ensure that learning leads to worthwhile outcomes for learners, linked to their aspirations and needs.

**Implications for the Learning and Skills Council**

- Ensure that the introduction of Recognising and Recording Progress and Achievement (RARPA) is fully inclusive of all learners and that it opens up new ways of recognising the learning and achievements of people with learning difficulties.

There is a shift in the literature away from the concept of ‘readiness’ towards a focus on learning *in situ*, whether that is in relation to basic skills, everyday living, personal and social interactions or employment. Effective teaching appears to combine learning in real-life settings with the development and practice of specific skills in controlled settings, using a variety of methods. The transfer and generalisation of skills must be planned for and will involve a network of other professionals working together to support learning in different settings.

**Implications for practitioners**

- Use strategies that combine learning in real-life situations with learning in controlled or simulated environments.

- Recognise and actively plan for the transfer and generalisation of learning between settings.

The potential of information technology to support learning and contribute to learners’ empowerment and social inclusion has emerged as an important theme in the literature. Instead of being seen as a useful but peripheral tool, information technology and multi-media approaches need to be reconceptualised as central to the learning process.
Implications for practitioners

- Embed the use of technology and multi-media approaches into the teaching and learning process.

Implications for the Learning and Skills Council

- Ensure that national initiatives that promote the use of ICT include all staff working in the field of learning difficulties, and that providers are expected to develop inclusive ICT development strategies under the DDA.

7 The context of learning is crucial in terms of the planned and unplanned opportunities for learning that different environments can afford. The context influences not only what is learned but how it is learned through the social interactions that occur, the networks that are created and the means that are available within particular environments. The context can transform how learners see themselves and how they are seen by others.

Implications for practitioners

- Ensure that learners have access to progressively more demanding learning environments through which they can widen their social networks and interactions and be supported in transforming how they see themselves and how others see them.

Implications for the Learning and Skills Council

- Ensure that funding decisions encourage providers to develop provision that opens up new and challenging learning environments, and resist decisions that are likely to expand school-based provision for post-19 learners.

8 The process of learning can become the means through which people with learning difficulties themselves challenge the negative and stereotyped views that are held by many in society about who they are and who they can become. In this context, learning is envisaged as a quality-of-life issue that emphasises respect for the real lives, experiences and aspirations of people with learning difficulties, combined with the notion of community regeneration and empowerment. This can be achieved through working together towards a common goal where the participants are recognised as the experts. Examples include community-based programmes, performing arts projects and self-advocacy groups. These approaches challenge existing ideas about the nature of the knowledge that is to be acquired, the methods and materials that are used and the role of the learners in the teaching and learning process.
Implications for practitioners

- Use teaching methods and approaches that actively contribute to the development of learners’ self-determination, self-advocacy and empowerment.

- Work with local partners from other services and community organisations to develop community-based programmes that involve learners in their co-construction.

Implications for the Learning and Skills Council

- Facilitate innovation that fosters the development of community-based programmes through supporting interagency working under the new children’s trusts arrangements and Learning Disability Partnership Boards.

One of the aims of this report was to propose a possible theoretical model against which current provision for adults with learning difficulties can be evaluated and future provision developed. The purposes proposed here provide such a framework for conducting systematic and empirical research into the nature of teaching methods and approaches that are currently being used in practice, and their relationship to theories of learning. Questions that such research might seek to address include:

1. How do practitioners draw on the range of theoretical ideas about learning in their teaching or training?

2. How would they describe their underlying purposes?

3. How would learners describe their purposes in learning?

4. What factors influence the decisions taken by practitioners about how to teach or train? How do their underlying purposes influence their decisions?

5. To what extent are the three purposes of being, having and doing reflected in their work?

6. What new approaches and models of provision can best foster learners’ social and economic empowerment?


Dawkins B (2005). Working with Acting Up, Mencap has been piloting multi-media profiling as a tool to help people with profound and multiple learning disabilities gain more control over their lives. *PMLD Link*, 17(1), 10–12.


Lancioni FF & O'Reilly M (2002).  


*Personalisation through Participation: A New Script for Public Services.* London: Demos.

Learning and Skills Council (LSC) (2005).  
*Through Inclusion to Excellence.* Coventry: LSC.

Learning and Skills Development Agency (LSDA) (2005).  
*Disability Discrimination Act Briefing for staff organising work experience or work placements* www.LSDA.org.uk (accessed July 2006).


*Transformative Dimensions in Adult Learning.* 
San Francisco: Jossey Bass.


Raising standards in Mathematics. In C Tilstone 
& R Rose (Eds), Strategies to Promote Inclusive Practice. 
London: Routledge Falmer.

Porter J, Aspinall A, Parsons S, Simmonds L, Wood M & 

Supported employment in Great Britain. In M Floyd (Ed), 
Vocational Rehabilitation and Europe. London: Jessica Kingsley.

A new world order: Connecting adult developmental theory 
to learning disabilities. Remedial and Special Education, 
24(6), 328–338.

An instructional model for adults with learning disabilities. 

Redley M, Dee L, Weinberg D, Clare I, Holland T 
& Dearden C (2005). 
Face-to-face Communication in the Self-Advocacy Movement: An 
Exploratory Case Study www.educ.cam.ac.uk/randd/reportsum

Real Jobs: the perspectives of workers with learning difficulties. 
Disability and Society, 13(2), 229–239.

Developmental Dyslexia in Adults: A Research Review. 
London: NRDC.

The Learning Society and People with Learning Difficulties. 
Bristol: Policy Press.

Quality of life as a consideration in the development of inclusive 
education for pupils and students with learning difficulties. 
In C Tilstone, L Florian & R Rose (Eds), Promoting Inclusive 

Putting person-centred planning in its proper place. 
Learning Disability Review, 9(3).


Tennyson C (2003).


Torres-Velasquez D (2000).

*Models of Adult Learning: A Literature Review*. London: NRDC.


Wall ME & Gast DL (1999).

Walmsley J (2002).

Ware J (1996).
*Creating a Responsive Environment for People with Profound and Multiple Learning Difficulties*. London: David Fulton.

Learning and mental health. *Adults Learning*, 12(2), 9-10.


The Copewell Curriculum: development, content and use. 
In A Dean & S Hegarty (Eds), *Learning for Independence*. 
London: FEU.

Social Role Valorization is too conservative. No it is too Radical. 
*Disability and Society*, 10(3), 365–368.

Wright AM (2006). 
Provision for students with learning difficulties in general colleges of further education – have we been going round in circles? 

The effects of purchasing skills instruction for individuals with developmental disabilities: A meta-analysis. 
*Exceptional Children*, 71(4), 379-400.

Young L, Moni KB, Jobling A & van Kraayenoord CE (2004). 
Literacy skills of adults with intellectual disabilities in two community-based day programs. 

A curriculum for the 21st century? Towards a new basis for overcoming academic/vocational divisions. 

Pedagogy and learning in Further Education: New contexts, new theories and new possibilities. 

Ysseldyke JE (2001). Reflections on a research career: Generalizations from 25 years of research on assessment and instructional decision making. 
*Exceptional Children*, 67(3), 295–309.
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<th>Perspective</th>
<th>Key ideas about learning</th>
<th>Implications for teaching</th>
<th>Implications for differentiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviourist</td>
<td>Environment is determining factor. Learning is conditioned response to external stimuli. Complex wholes are assembled out of parts. No concept of mind, intelligence, ego etc – only interested in observable behaviour.</td>
<td>Teacher's role is to train people to respond to instruction correctly and rapidly. Basic skills are introduced before complex skills. Positive feedback and correction of mistakes to make the connections between stimulus and response.</td>
<td>Students can be taught in homogenous groups according to level of skill, or individually according to rate of progress through a differentiated programme based on a fixed hierarchy of skill acquisition.</td>
</tr>
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</table>

[1] Learning How to Learn 2002
http://www.learntolearn.ac.uk
<table>
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<tr>
<th>Nature of achievement</th>
<th>Implications for assessment</th>
<th>Key theorists</th>
<th>Associated philosophical and political movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>The accumulation of skills and facts in a given domain, demonstrated in speedy performance and the formation of habits.</td>
<td>Progress measured through timed tests with items taken from different levels in a skill hierarchy (constructed by decomposition).</td>
<td>Watson, Skinner, Pavlov, Thorndike</td>
<td>Positivism, Empiricism, Technicism, Managerialism, Conservative politics</td>
</tr>
<tr>
<td>Perspective</td>
<td>Key ideas about learning</td>
<td>Implications for teaching</td>
<td>Implications for differentiation</td>
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<tr>
<td>Cognitive</td>
<td>Learning is determined by what goes on in individuals’ heads. Focus is on how people construct meaning and make sense of the world through organising concepts and principles in schemata (mental models). There is an emphasis on conceptual knowledge, and problem solving is seen as the context for knowledge construction, although strategies for problem solving and reasoning are important.</td>
<td>Role of the teacher is to help ‘novices’ to acquire ‘expert’ understanding and to solve given problems by symbolic manipulation with ‘less search’.</td>
<td>People’s constructions of knowledge vary with past experience, so teachers need to take account of individual and group differences in present understanding in order to ‘scaffold’ future learning.</td>
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<td>Nature of achievement</td>
<td>Implications for assessment</td>
<td>Key theorists</td>
<td>Associated philosophical and political movements</td>
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<tr>
<td>Understanding and competence in relation to:</td>
<td>Necessary to elicit students’ mental models (through open-ended assignments, thinking-aloud protocols, concept-mapping) and give opportunities to apply concepts and strategies in novel situations.</td>
<td>Piaget, Chomsky, Bruner (but later work engages with socio-cultural perspective), Hirst, H Simon</td>
<td>Positivism, Rationalism, Humanism, Liberal politics</td>
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<tr>
<td>Perspective</td>
<td>Key ideas about learning</td>
<td>Implications for teaching</td>
<td>Implications for differentiation</td>
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<tr>
<td>Situated (socio-cultural, activist)</td>
<td>Learning occurs in interaction between individual and environment. Thinking is conducted via actions that alter the situation, and the situation changes the thinking. Learning involves participation and problem-solving and is not necessarily the property of an individual but shared within the social group (distributed cognition). The collective knowledge of the group or organisation is greater than the sum of the knowledge of individuals.</td>
<td>The teacher needs to create environments in which people can be stimulated to think and act in authentic tasks (like apprentices) beyond their current level of competence. Important to find activities that a person can complete with assistance but not alone. Tasks need to be collaborative and students need to be involved in the generation of problems and solutions. Teachers and students jointly solve problems and all develop their skill and understanding.</td>
<td>Differentiation is intrinsic to learning because problems and actions are generated as social situations change. Since neither the environment nor the internal organisation of the individual is fixed, differentiation as a contrived strategy is not relevant. Individuals can have different levels of participation in activity and all move to increased participation.</td>
</tr>
<tr>
<td>Nature of achievement</td>
<td>Implications for assessment</td>
<td>Key theorists</td>
<td>Associated philosophical and political movements</td>
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<tr>
<td>Engaged participation in ways that others find appropriate, ie seeing the world in a particular way and acting accordingly. Shaping and being shaped by a community of practice. Knowledge needs to be seen in relation to context and understanding cannot be judged absolutely.</td>
<td>Learning needs to be inferred from active participation in authentic (real-world) projects. Focus is on how well people use the resources (intellectual, human, material) available to them to formulate problems, work productively and evaluate their efforts.</td>
<td>W James, Dewey, Mead, Dreyfus, Vygotsky, Rogoff, Lave, Wenger, Engestrom</td>
<td>Pragmatism, Functionalism, Social democratic/progressivist politics, Existentialism, Phenomenology, Marxist dialecticism, Modernism, Communitarian, Post-modernism</td>
</tr>
</tbody>
</table>
Appendix 2

List of search terms

**The contexts**
- Adult education
- Adult learning
- Adult provision
- Continuing education
- e-learning
- Formal/informal/non-formal learning
- Further education
- Post-16
- Post-secondary/post-compulsory
- Supported living
- Vocational education
- Work-based learning

**The learning theories**
- Activity theory
- Andragogy
- Behaviourism
- Cognitivism
- Communities of practice
- Constructivism
- Experiential learning
- Developmental theories
- Gestalt theory
- Humanistic
- Learning to learn
- Learning styles
- Legitimate peripheral participation
- Lifelong learning
- Socio-constructivism
- Socio-cultural theory
- Transformative learning
Target group

In UK search engines
Attention Deficit Hyperactivity Disorder (ADHD)
Autism
Down Syndrome
Inclusive education
Learning difficulties
Learning disabilities
Profound and complex learning difficulties
Profound and multiple learning difficulties
Severe learning difficulties
Special educational needs

In USA search engines
Attention Deficit Hyperactivity Disorder (ADHD)
Autism
Down Syndrome
Intellectual impairment
Mental retardation
Severe intellectual impairment
Severe mental retardation
### Appendix 3

#### List of databases

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<tr>
<th>Organisations</th>
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<td>ACE (adult and community education)</td>
<td>ERIC</td>
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<tr>
<td>ALI</td>
<td>BEI</td>
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<tr>
<td>DfES</td>
<td>AEI</td>
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<tr>
<td>EPPI-centre</td>
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<td>HFT</td>
<td>Psychoinfo</td>
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<td>LSC</td>
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<td>LSDA</td>
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<td>Mencap</td>
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<td>NFER (National Foundation for Education Research)</td>
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<tr>
<td>NIACE</td>
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<td>Norah Fry</td>
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<td>NRDC (National Research and Development Centre)</td>
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<td>NTD (National Development Team)</td>
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<td>OFSTED</td>
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<td>QCA</td>
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<td>Scope</td>
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<td>SPRU (Social Policy Research Unit)</td>
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<td>Tizard Centre</td>
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<tr>
<td>TLRP (Teaching and Learning Research Programme)</td>
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### List of journals

ACE Bulletin  
British Educational Research Journal  
British Journal of Educational Psychology  
British Journal of Education Technology  
British Journal of Learning Disabilities  
British Journal of Sociology of Education  
British Journal of Special Education  
British Journal of Visual Impairment  
Cambridge Journal of Education  
Computer Education  
Educational Psychology in Practice  
Educational Research  
Educational and Behavioural Difficulties  
Educational Theory  
Equals  
European Journal of Special Needs Education  
Exceptional Children  
Disability and Society – University Library  
JARID (Journal of Applied Research in Intellectual Disabilities)  
International Journal of Disability, Development and Education  
International Journal of Language and Community Disorder  
Journal of Curriculum Studies  
Journal of Education for Teaching  
Journal of Educational Psychology  
Journal of Further and Higher Education  
Journal of Intellectual Disability Research  
Journal of Learning Disability  
Journal of Research in Special Educational Needs  
Journal of Special Education  
Journal of Vocational Education and Training
## Appendix 5

### Key database fields

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<td>Setting</td>
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<td>Setting</td>
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<td>Adult and Community Learning</td>
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</table>
| FE, Adult and Community Learning | This paper identifies four relatively distinct traditions which have been used to guide work and research with people with intellectual disabilities. These are:  
- ordinary living, which includes both the human rights and normalisation approaches  
- functional or skill-based  
- behavioural  
- developmental tradition.  
  By drawing on Habermas’ theory of knowledge, the authors argue that these traditions are not incompatible, but rather that the ordinary living tradition might provide an integrative framework for all the others. The central argument supports the view that knowledge on people with intellectual disabilities is better served by integrating different views into an emerging super-ordinate paradigm. |
<p>| FE, Adult and Community Learning | This article discusses how a social model of disability could be useful to frame the debate about learning difficulties. The authors offer a brief history of the social model and show how people with learning difficulties have so far been largely excluded from it. As a way forward, the authors propose an increase in the kind of research approaches that would allow people with learning difficulties to be part of the research process – ie participatory research and self-advocacy groups. While recognising that people with learning difficulties tend to distance themselves from the political dimensions of ‘disability’, the authors also show that self-advocacy groups have a social and political dimension that so far has been under-theorised. |</p>
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<td>Coffield F, Moseley D, Hall E &amp; Ecclestone K (2004). <em>Should We Be Using Learning Styles?</em> What research has to say to practice. London: LSRC.</td>
<td>All learners</td>
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<td>Mental Health Foundation (2002). <em>Count Us In: The Report of the Committee of Enquiry into meeting the mental health needs of young people with learning disabilities.</em> London: Foundation for People with learning disabilities/Mental Health Foundation.</td>
<td>Learning difficulties</td>
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<td>FE, Adult and Community Education</td>
<td>This LSRC publication presents an overview of 13 models of ‘learning styles’ found in the literature of the post-16 sector. While in the final analysis the report found inconclusive empirical evidence to support the use of learning styles, it nevertheless claims that a developing awareness of learning strategies can contribute to the development of metacognition. In conclusion, the report argues that a debate about learning styles should be part of a wider discussion about pedagogy taking into account the impact of contextual structures.</td>
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<td>Adult and Community Learning</td>
<td>This book starts with an analysis of the concept of ‘The Learning Society’, makes a clear distinction between learning and education, and explores the concept of social capital. In so doing it offers a critique of policies which aim to promote social capital, and it offers a framework for understanding how adults gain and use knowledge. Field identifies two kinds of knowledge: academic, abstract, codified, typically acquired through formal learning; and practical, situated, implicit and typically acquired via informal learning. By drawing on data from a Northern Ireland study the author suggests that ‘for many purposes, information acquired informally through connections and skills picked up from workmates and family, can be far more effective in certain circumstances than those transmitted by formal educational institutions.’ (p79). In conclusion, the key task for the Learning Society is to develop the stock of social capital, or the ‘social networks, the reciprocities that arise from them and the value of these for achieving mutual goals’ (p1) that is available to all adult learners.</td>
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<td>FE, Adult and Community Learning</td>
<td>This report of the committee of inquiry into the mental health needs of young people with learning difficulties suggests ways of improving and promoting mental health for young people during the transition between adolescence and adulthood. The report concludes that young people with learning difficulties are more at risk of developing mental health problems than their peers. As a way of rectifying this, the report suggests that positive mental health can be promoted by improving young people’s resilience and autonomy through considering the impact of environmental factors and the need for joined-up multi-agency responses.</td>
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<td>FE and Adult Community Learning</td>
<td>The article is a review of the literature on teaching food preparation in order to identify the best instructional techniques. While there is no conclusive evidence that one strategy is better than any other, the most encouraging were <em>pictorial instruction</em>, or the use of cards and computers, <em>systematic prompting strategies</em> and studies combining time and delay techniques. Most interestingly, though, the authors discuss the relationship between formal and informal learning. While the evidence shows that formal learning is used to carefully plan activities with the aim of pursuing high performance in independent living and vocational areas, informal learning with its more relaxed approach and freedom from pre-set performance criteria is useful for improving social skills. Consequently, the authors recommend a blending of strategies and more research to determine which strategies are better suited to particular individuals.</td>
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<td>Compulsory education</td>
<td>Located within the debate on the nature and need to have a special pedagogy, this article proposes instead the notion of continua of teaching approaches and the ‘unique differences position’. By drawing on empirical evidence, the authors support the thesis that the notion of a continua of teaching approaches makes it possible to distinguish between the ‘normal’ adaptations to teaching approaches made for most learners and the greater degree of adaptations required for those with more severe difficulties in learning.</td>
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<td>Adult and Community Learning</td>
<td>This edited volume offers an overview of the development, practical implementation, and ethical dilemmas of using person-centred planning. The book reflects on a number of themes, ranging from a focus on interdependency to the need to take the contributions and aspirations of people with learning difficulties and/or disabilities as starting points for planning. It finally highlights a number of challenges that practitioners have to face.</td>
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<td>Supported employment</td>
<td>This report offers a critique of the current system of provision for supported employment, and proposes a policy framework for providing better opportunities for employment and a better quality of life for people with disabilities. To achieve this, supported employment needs to be recognised as a valid model, but it also needs to be adequately funded. Of interest for learning is the authors’ definition of supported employment as based squarely on a social model of disability and on the values of social and economic inclusion that promote self-determination, choice and independence.</td>
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<td>FE, Adult and Community Learning</td>
<td>The article focuses on the relationship between adult developmental theories drawn from biology, sociology and psychology and the notions of adulthood and self-determination so as to argue the case for an integrative model able to fully reflect the complexity and uniqueness of adults’ experiences and development. Starting with a re-definition of adulthood, the authors make a theoretical connection between the integrative model, the concept of self-determination and theories of learning that emphasise the transformative dimension of learning. The authors suggest that an approach based on self-determination, being reflexive and thus adaptable to the changing needs of adults, can enhance personal values, beliefs and experiences, and can promote choice making and self-awareness.</td>
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<td>FE, Adult Community Learning</td>
<td>This book aims to fill a gap in the literature on lifelong learning, and problematises the relationship between lifelong learning and disability. While taking into consideration arguments that stress the inclusionary dimension of lifelong learning, the authors also demonstrate that policy based on human capital premises have resulted in forms of lifelong learning which further marginalise people with learning difficulties. In particular it explores the connections between community care, education, training, employment, housing and benefits policies and the extent to which they include or exclude people with learning difficulties.</td>
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<td>Rogers A (2003). ‘What’s the difference?’ Adult Learning, Vol. 15, No. 2, 15–17.</td>
<td>All learners</td>
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This article explores the nature of perceived differences in learning between children and adults and the implications of this for teaching. While it is suggested that there is no substantial difference between the learning processes which adults & children employ, the difference lies in the way in which different people engage in both acquisition and formalised learning. This will vary according to their experience and the constructions and expectations they build on these experiences. However, the main argument of the article is that it is the construction of child and adult identity that defines the relationship between teachers and learners and that contribute to the main differences between children and adults as learners.

The article proposes the use of universal design for learning (UDI) as a new paradigm/approach for enhancing equal educational access to adults with learning disabilities. At the core of UDI is the idea that the design of products and environments should be usable by all people to the greatest extent possible. According to the authors, this notion of equal access can be extended to the design of instructional and teaching strategies by implementing the nine principles of UDI. The authors conclude that while the principles are well grounded in the literature, more empirical research is needed to evaluate the effectiveness of UDI in enhancing learning experiences.

The article focuses on the development of a conceptual framework for self-advocacy, which is viewed as a sub-skill of self-determination. While the authors consider self-advocacy as an outcome which has a positive impact on academic success, they also view it as a valuable strategy that needs to be learnt and therefore to be taught. As a way to help teachers and parents to teach self-advocacy skills the authors conceptualise it as comprising four interrelated areas: knowledge of the self; knowledge of rights; communication; leadership. All four areas need to be taken into consideration and teaching of any of them is dependent on the person’s needs. Moreover, the authors argue that learning self-advocacy skills is not tied to a developmental sequence of intellectual abilities.
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<td>FE, Adult and Community Learning</td>
<td>This article argues the case for using a sociocultural paradigm drawing on the theories of Vygotsky to understand the learning of adults with disabilities. The central question addressed is how children and adults with disabilities can be helped to develop the capabilities identified within a sociocultural paradigm, ie the capabilities ‘to adapt, to be flexible, to solve problems, and to communicate interpersonally’ (p68). The key argument proposed by the author is that we need to move beyond a notion of knowledge transmission to empower people to discern and use the available knowledge to make informed decisions.</td>
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<td>Adult and Community Learning</td>
<td>This is a wide-ranging review of literature on adult learning that classifies theories of learning as either grounded in psychology (behaviourism, cognitivism, cognitive constructivism, developmental theories, activity theory/social constructivism, situated cognition, brain science) or grounded in a humanistic and emancipatory framework.</td>
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<td>FE</td>
<td>This paper outlines the current changes in both context and demands faced by teachers in further education, and proposes the need for a new approach to learning and pedagogy. This ‘reflexive learning’ results from a synthesis of four main theories of adult learning and the development of situated learning into what they term ‘trans-institutional learning’ (p22). The authors articulate five fundamental assumptions behind this reflexive approach. These are that learning is a social process involving communities of practice; it is situated; it occurs within contexts that are bounded by other contexts; it requires us to distinguish between the different types of learning and identify their interdependence on each other; and finally it involves being immersed in ideas that provide the basis for reflection on experience. Within this approach, the focus is not on identifying the one best pedagogic technique but on clarifying the different purposes of different types of learning and the different pedagogic strategies that may help to realise them.</td>
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This meta-analysis examines the effectiveness of numeracy teaching strategies and in particular purchasing skills for individuals with developmental disabilities. It was found that the effectiveness of the teaching strategies employed varied according to the students’ pre-knowledge, their entry skills, money skills adaptation, type of purchase, and instructional setting. The meta-analysis suggests that pre-knowledge of counting money yielded better results; there was no overall proof that prompting and fading strategies were more effective; and that the effectiveness of any strategy depended on the purchasing goal (i.e., using vending machines, grocery shopping or withdrawing money from bank account). The authors conclude by saying that the instruction of skills cannot be isolated from a wider set of factors, including the impact of the environment, and that the teaching of purchasing skills should be integrated with the teaching of other social skills.
The Learning and Skills Network welcomes continuing interaction with researchers and research users. Please contact us with your questions, ideas and information.

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As knowledge about adult learning evolves, assumptions and limitations of current theories are tested, challenged and replaced by new understandings. Yet beliefs about learners with difficulties in learning are more likely to influence decisions about how to teach, and what approaches to adopt, than new knowledge and insights. In this literature review the underlying purposes of provision for adults with learning difficulties are revisited, allowing greater clarity in deciding which strategies best suit their fulfillment. This led to a person-centred way of conceptualising the purposes of learning that offers a more holistic and multi-faceted view of adults with learning difficulties.