



Department
for Education

Annex A: Encouraging participation and persistence in adult literacy and numeracy

Literature Review (August 2014)

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1 Introduction

1.1 About This Review

This review was commissioned by the Behavioural Insights Research Centre for English and Maths (BIRCEM) in order to provide an overview of the research that has been conducted in the areas of adult literacy and numeracy (ALN) and behavioural sciences that can provide answers to the following research questions:

1. How can adults lacking in basic skills be encouraged on to literacy and numeracy courses?
2. How can adults on literacy and numeracy courses be encourage to persist and complete these courses?

The aims of this review were to identify, describe and appraise literature relevant to these two research questions in order to both give an overview of the research findings to date and provide ideas for future research. This review was conducted rapidly over the period of two months (June and July 2014) and focusses on breadth rather than depth with the intention of providing an introduction to many different relevant areas that could be used as a basis for the development of ideas for future research.

This review is split into six sections;

1. A theoretical overview that explains the underpinnings of some of the strategies and methods to encourage participation and persistence as well as relevant models of participation and persistence,
2. An overview of the most commonly cited barriers to adult learning,
3. A discussion of commonly cited motivations for engaging with adult learning,
4. How participation and persistence can be encouraged through different types of provision,
5. Additional strategies that could be used to encourage participation and persistence based on insights from the behavioural sciences, and
6. Useful aids for encouraging participation and persistence that were uncovered as part of this review.

Each main section ends with a summary of the section and there is a conclusion at the end of the document that summarises the main research findings and puts forward suggestions for future research.

Due to the short time frame in which this review was carried out it was not possible to adopt all of the processes expected of an extended or systematic review. Research was

identified through searches of relevant databases (Australian Education Index, British Education Index, Education Resources Information Center, PsychINFO and Web of Science), web searches, searching websites of key organisations (Department for Business, Innovation and Skills [BIS], Learning and Skills Improvement Service [LSIS], National Foundation for Educational Research [NFER], National Institute of Adult Continuing Education [NIACE], National Research and Development Centre for adult literacy and numeracy [NRDC] and National Center for the Study of Adult Learning and Literacy [NCSALL]) and reference harvesting (following up on references cited in papers found during the review). Searches were not constrained by dates.

1.2 Background

Adult basic skills education only recently became a national priority after low levels of literacy and numeracy in the UK were revealed in the mid-nineties by the International Adult Literacy Survey (IALS). Following this, the Moser report (1999) highlighted that around 20% of adults were functionally illiterate and that around the same number had very low numeracy. The report proposed a national strategy for adult basic skills with ten main elements: national targets, an entitlement to learn, guidance, assessment and publicity, better opportunities for learning, quality, a new curriculum, a new system of qualifications, teacher training and improved inspection, the benefits of new technology and planning of delivery. These were largely addressed in the Skills for Life initiative which launched in 2001. At around this time a review of the evidence base on adult basic skills education showed that very little was known about best teaching practices or the impact of basic skills training (Brooks et al., 2001a). The review highlighted a complete absence of intervention studies investigating the factors of teaching that lead to progress on basic skills courses. Since then there has been a great amount of progress in both changing and improving practices and developing a good quality evidence base. However, as this review will highlight, there is still a lack of robust evidence in some areas of adult basic skills education and a number of questions that still require addressing including the research questions that form the basis of this review.

It should be noted that even though much effort has been made to improve ALN provision and outcomes, the 2013 OECD Survey of Adult Skills (PIAAC) suggested that 24% of adults in the UK (around 8.5 million people) are operating at or below the lowest level of proficiency in numeracy and 16% (around 5.8 million people) are operating at or below the lowest level of proficiency in literacy (OECD, 2013).

1.3 Withdrawal Trends

In 2012/2013 748,200 people participated in numeracy courses at Level 2 or below and 765,800 in literacy courses at Level 2 or below. Of those, 357,100 people (48%)

achieved the course qualification in numeracy and 351,500 (46%) in literacy (Skills funding Agency, 2014).

Analysis of the Learning and Skills Council's Individualised Learner Record (ILR) by Cara et al. (2009) showed that half of the adult literacy learners who withdraw do so during the first third of the course. In literacy courses it was learners aged 19-24 who were the least likely to persist during this critical period with 16-18 year old learners and older learners aged over 55 being more likely to persist until half-way through the course. This highlights the importance of initial support into learning, especially for those aged 19-24.

The data also showed differences in persistence across course levels during the first half of the course. In numeracy (and, to a lesser extent, literacy) Level 2 learners were less likely to withdraw than Level 1 learners who were in turn less likely to withdraw than Entry Level learners. These differences faded once past the half-way mark with learners on all course levels showing a similar likelihood of completing.

In general, research has shown that there is little difference in the demographic characteristics of adults that withdraw from learning and those that persist (e.g., Martinez & Munday, 1998; Comings et al., 1999; Vorhaus et al., 2011). However, one study suggested that parents of teenage or grown-up children, immigrants and learners over 30 were the most likely to persist (Comings et al., 1999).

1.4 Persistence Studies

To date, there have been three large-scale studies on persistence in adult basic skills education and their findings are referred to throughout the document using the references outlined below. It is worth giving a brief overview of each of these studies here in order to understand previous research in this area specifically.

1.4.1 MDRC/NCSALL Persistence Project

(Comings et al., 2001; 2003; Porter et al., 2005)

In the US in 2000 to 2003, the Manpower Demonstration Research Corporation (MDRC) and NCSALL, carried out an evaluation of the Literacy in Libraries Across America (LILAA) initiative that aimed to increase persistence in library-based literacy programmes. The project evaluated the implementation and outcomes of persistence strategies developed and applied in nine branches of five participating libraries. These strategies included improved instruction, more varied and more extensive social supports, and technology upgrades. Although these strategies seemed to have little effect on persistence, the study did provide insights into persistence patterns and pathways and barriers to persistence.

1.4.2 The New England Adult Learner Persistence Project (NEALP Project)

(Nash & Kallenbach, 2009)

In this project 18 adult education programs from five New England states developed and delivered persistence strategies to their learners (755 in total) focussing on one of the following areas: intake and orientation, instruction, counselling and peer support or re-engagement. Strategies ranged from goal-setting to building self-efficacy. Attendance and completion rates were measured for the majority of learners (730) and these increased significantly compared to rates from the previous year.

1.4.3 The Motivating Learners to Persist, Progress and Achieve Project (PPA Project)

(Litster, 2007; Lopez et al., 2007; NRDC, 2008a; 2008b; 2008c; 2008d)

In England in 2006 to 2008 the NRDC in association with the NIACE completed the PPA project for the Quality Improvement Agency (now the Learning and Skills Improvement Service, LSIS). The project was commissioned to increase the evidence base on learner persistence, progression and achievement in Skills for Life and to develop tools and techniques for learners, practitioners and managers to support persistence. In total, the project worked with over 400 Skills for Life learners and 300 teachers and managers.

Although these studies have undoubtedly added substantially to the evidence base on persistence, they all have limitations; most notably that none of them utilised robust research methods when evaluating interventions. The MDRC/NCSALL project only studied persistence in literacy programmes and not numeracy. Also, the findings from that study may not be generalizable to UK basic skills programmes as the US library-based programmes that were examined in the project had very different learner demographics and delivery styles to those in the UK. They tend to be delivered to mainly older learners from non-white backgrounds by volunteer tutors on a one-to-one or small group basis. The NEALP project was very short in duration (5 months) and the sample size of intervention groups ranged from 2 to 163 learners. They ascertained effects of the interventions based on comparison to the previous year and, in some cases, had no baseline data from the previous year to compare to. Evidence from the PPA project was also gathered over a short period of time providing a snapshot of learner persistence rather than a view of persistence over a longer learning journey. Researchers were unable to gather data on learners' home practices/self-study or from learners who were not actively engaged in learning. Findings were not based on a representative sample of either basic skills providers or learners and although the project produced and trialled a number of useful tools, the evaluation of this was largely anecdotal, relying heavily on case studies rather than quantitative methods.

As Vorhaus et al. (2011 p. 115) conclude; “there is no research from the UK that has followed a sample of adults with low basic skills over a sufficiently long period of time long to enable clear patterns of persistence to emerge. It is thus not obvious which adult learners will persist, or whether provider strategies for supporting learner persistence have any impact”. There is clearly scope for much research in this area in particular.

2 Theoretical Overview

Outlined below are theories relevant to both adult learning and participation and persistence in adult learning that provide the theoretical basis of some of the strategies for encouraging participation and persistence that are proposed later on in this report.

2.1 Adult Learning Theories

2.1.1 Andragogy

One of the most influential theories of adult learning is Malcolm Knowles' theory of andragogy – the art and science of helping adults learn (e.g., Knowles, 1970; 1973). Knowles was the first person to differentiate between the ways in which adults and children learn and his theory proposes six assumptions or principles of adult learning (from Knowles et al., 2011):

1. The Need to Know

Adults are relevancy-oriented, they need to see and understand the reason for learning something before they start learning it. They also want to know how what they are learning is relevant to what they want to achieve.

2. The Learners' Self Concept

Adults have a self-concept of being responsible for their own lives and decisions and the psychological need to be autonomous and self-directed is strong. Adults will resist learning when they feel that others are imposing their will, ideas or information on them. They like to be involved in directing and planning their learning and tailoring it to their specific interests and goals.

3. The Role of the Learners' Experiences

Adults bring life experiences and knowledge to learning and they like to be given the opportunity to use and apply them to new learning experiences. Groups of adults are also likely to bring a wide range of knowledge and experience to learning between them and be more heterogeneous than youths in their backgrounds, motivations, goals, interests, needs and learning styles.

4. Readiness to Learn

Adults need to be ready to learn – they are most interested in learning things at the time in their lives when they are most relevant.

5. Orientation to Learning

Adults are life-centred (or problem-centred) in their orientation to learning – they are motivated to learn if they can see how what they will learn will be applied in their lives and how it will also make their lives better e.g., enable them to do a task more effectively, enable them to apply for a better job, etc. Also, adults learn better when what they are learning is presented in the context of application to real-life situations.

6. Motivation

Although adults may have both internal (intrinsic, e.g., increasing confidence) and external (extrinsic, e.g., getting a job) motivations to learn, internal motivations are much stronger.

2.1.2 Motivational Theories

2.1.2.1 Motivational Framework for Culturally Responsive Teaching

Wlodkowski (2008) proposes that motivation is central to engaging and persisting with learning and that learning and motivation are inseparable from culture (people's background, beliefs, attitudes, values, emotions, etc.). Motivation is defined as a process or an internal state that activates, guides, maintains or directs behaviour (Kleinginna & Kleinginna, 1981). Without motivation to learn, there is no learning (Walberg & Uguroglu, 1980). As outlined above, motivations to learn can be extrinsic or intrinsic but a person is more invested in learning if they are intrinsically motivated. Therefore, teaching methods that encourage intrinsic motivation are likely to support persistence.

In their framework for culturally responsive teaching, Wlodkowski and Ginsberg (1995) respect the individuality of adult learners and their cultures and propose that a common learning culture suitable to all can be created in the learning environment. Their framework, which builds on the principles of andragogy, proposes four conditions that can be created through a collaborative process between teacher and learner to enhance adult motivation to learn:

1. Inclusion

An inclusive learning atmosphere is one in which learners and teachers are respected by and connected to each other. Adults need to feel safe, capable, accepted and connected with others in their learning environment. Inclusion can be established through introductions, multidimensional sharing, using collaborative and/or cooperative learning, clearly outlining learning objectives and emphasising how what is learned relates to real-life.

2. Positive Attitudes

Attitudes toward the learning experience will influence motivation to learn right from the beginning of the experience when the learner makes judgements about the teacher, the subject, the environment and the likelihood of their success on the course so it is very important that positive attitudes are developed right from the start. A positive attitude towards learning can be created or enhanced through positively confronting negative attitudes, giving learners choice and control over their learning, being clear about the purpose and outcomes of courses right at the start, providing encouragement, using goal-setting methods and learning plans and making learning interesting and fun.

3. Meaning

For adult learners, meaning is at the core of motivation – they have to see and understand how learning is connected to a goal or purpose in order to be motivated to learn. Meaning can be enhanced by incorporating learners' perspectives and values in the learning experience, making the content relevant to the learner, stating the benefits of learning activities and using examples, analogies, metaphors and stories.

4. Competence

We have an innate disposition to be competent – to be effective at what we value. Feeling competent at a valued activity engenders positive emotions, feelings of efficacy and intrinsic motivation. Therefore, learners can be motivated to persist in learning if they are made to feel that they are progressing and doing well. Competence can be engendered through providing effective feedback, providing opportunities for adults to demonstrate their learning in ways that reflect their strengths, praising and rewarding learning and providing positive closure at the end of significant units of learning.

In his book 'Enhancing adult motivation to learn', Wlodkowski (2008) outlines 60 strategies to enhance the above four conditions in order to keep adult learners motivated to complete courses, some of which will be reviewed here. It is worth also noting that Wlodkowski (2008) proposes that teachers can be more effective and motivating if they learn/improve upon the following five skills:

1. Expertise

Expert teachers know something beneficial to adults, know it well and are prepared to convey knowledge through an instructional process. Effective and motivating experts know how to connect their knowledge to the daily lives and needs of their learners and take into account the knowledge and perspectives that learners bring to courses. They also deeply understand the subject, can give more than one good example of what they are teaching, can personally demonstrate the skills and know the limits of both the subject and their own knowledge on the subject. They prepare well for instruction and are familiar with their materials enough that their lessons flow well.

2. Empathy

The majority of adults come to learning for a reason based on goals they have. Their goals and expectations will influence how they motivationally respond to what they are taught. Empathy allows teachers to understand the learner's world and their needs, goals and expectations. Motivating teachers will have an understanding of these goals and expectations and will adapt instruction in line with them and the learner's level of experience an ability and will also continuously consider the learner's perspectives and feelings.

3. Enthusiasm

Enthusiastic teachers care about and value their subject and teach in a way as to inspire enthusiasm in others. They are powerful models – when we watch people we tend to embody their emotions and so teachers that instruct positively with emotion, energy and expressiveness are likely to transfer these feelings to learners and motivate them to continue learning.

4. Clarity

No matter how expert, empathic and enthusiastic a teacher is they will not motivate learning if they are not clear or understandable to learners. Clarity can be helped by planning and conveying instruction in a way that all learners will understand and providing learners with the opportunity to ask for clarity when they need it and then the means for them to understand.

5. Cultural responsiveness

All learners are different – they come from different backgrounds, have had different life experiences and have different motivations for learning. They all have a right to instruction that accommodates their diversity and that is provided in an environment that is safe, inclusive and respectful. Efforts should be made to encourage and motivate all learners, especially those who might be reluctant to learn. Course content and learning should be related to the social concerns of learners and the broader concerns of society.

2.1.2.2 ARCS Model of Instructional Design

The ARCS model (Keller, 1983; 1984; 1987) is a method for designing teaching materials in a way that stimulates and sustains a learner's motivation to learn. The model has three parts; the first is a set of four categories that characterise motivation (attention, relevance, confidence and satisfaction) based on what is known from research in the field. The second is a set of strategies designed to enhance each of these four elements of motivation and the third is a systematic design process that assists in enhancing the motivational appeal of instruction for a given set of learners by applying the strategies in existing instruction. Together, the model allows teachers to identify the elements of motivation that they think need enhancing when teaching a given set of learners and then

adapt existing instruction in order to do so. The model has been widely used and validated in a number of adult learning settings. This is a similar framework to Wlodkowski's mentioned above but with a greater emphasis on the application of strategies and the design of instructional material.

The categories can be seen as conditions that need to be met for motivation to be activated and sustained and are explained below:

1. Attention: Attention is both an aspect of motivation and a requirement for learning - the content of instruction and its delivery must be appealing enough to keep learners motivated to attend and therefore learn.
2. Relevance: Learners must be able to perceive the benefits of learning and the relevance of what they are learning to their lives.
3. Confidence: Confidence affects persistence and completion of learning courses - learners must believe that they are able to succeed with some hard work and effort.
4. Satisfaction: People are motivated when they are satisfied with their progress and feel good about their achievements.

Keller (1987) outlines a number of strategies to encourage motivation through enhancing each of these four elements. The design process involves identifying and embedding these strategies into existing instructional materials and includes four steps:

1. Define: The first step in this phase is to identify what the motivational problem is, if it is the appeal of the instruction then it is appropriate to use the model. Secondly, motivational gaps should be identified by analysing the audience and finally, motivational objectives should be prepared based on this analysis.
2. Design: A list of potential motivational strategies should be created for each objective and this should then be critically reviewed and the most suitable strategies chosen.
3. Develop: In the development phase any specific materials required should be created and integrated into instruction.
4. Evaluate: The efficacy of the changes made to instruction should be evaluated using both motivational and learning outcomes.

2.1.3 Self-Theories

In decades of research on belief-systems and how they affect achievement and motivation, psychologist Carole Dweck and colleagues (see Dweck, 1999 and 2006 for an overview) have shown how people either believe that basic qualities such as ability and intelligence are fixed, permanent entities (entity theorists) or are malleable and can

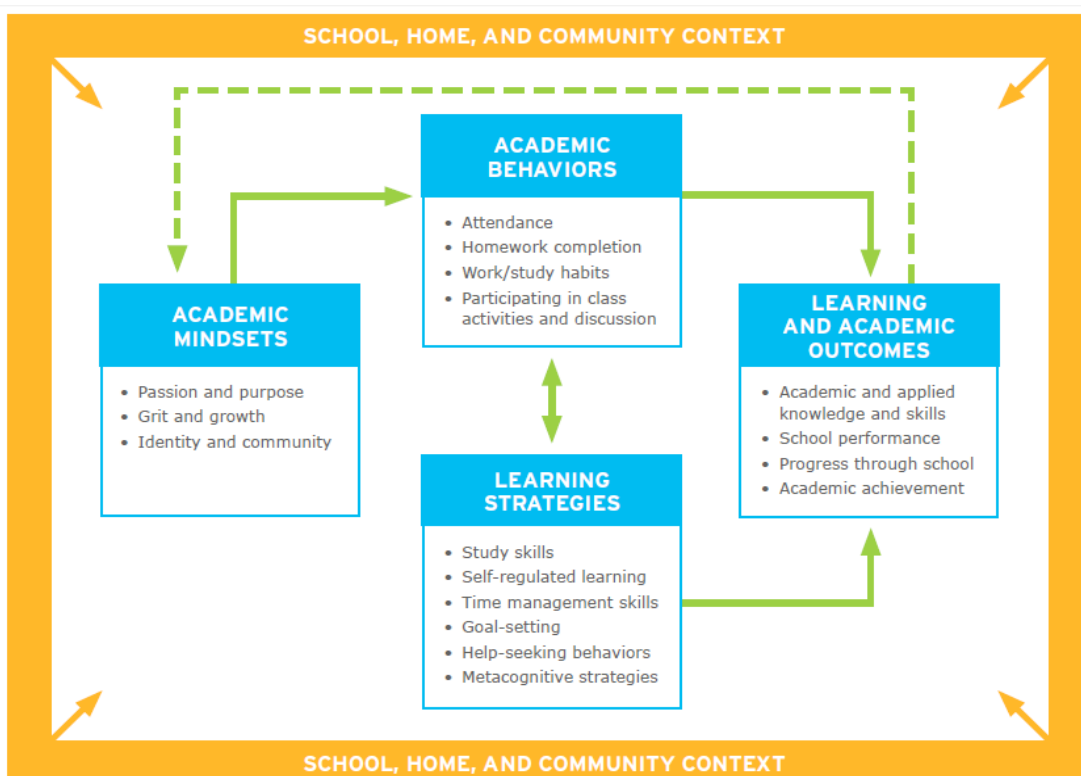
be developed with time and effort (incremental theorists). Learners who are entity theorists get satisfaction from being seen by others as smart and try to avoid looking unintelligent whereas those who are incremental theorists derive satisfaction from the process and consequences of learning – developing skills and knowledge. In later work, Dweck refers to entity theorists as those who have a ‘fixed mindset’ and incremental theorists as those who have a ‘growth mindset’.

Mindsets are strongly linked to academic achievement and persistence. Learners with fixed mindsets are likely to avoid challenging activities or give up on them easily because they believe that they simply can’t do them. They are also more susceptible to learned helplessness because of this. On the other hand, learners with growth mindsets react positively to challenging situations by increasing their efforts and problem solving strategies. Learners with a fixed mindset view not being able to do a task as failure whereas learners with a growth mindset view it as an opportunity to learn and get better.

2.1.4 Theory of Action

Building on the work of Carole Dweck and Farrington et al. (2012) Snipes et al. (2012) propose the theory of action that describes the relationship between academic mindsets, behaviour, learning strategies and outcomes (Figure 1).

Figure 1. Theory of action



Source: Snipes et al. (2012, p. 6)

The theory highlights the strong influence that beliefs, attitudes and dispositions (mindsets) have on engaging, persisting and succeeding in learning. It proposes that academic mindsets are made up of three components (of which growth mindsets are one) and can influence behaviours such as participation in class and persistence in attending and learning strategies that can improve outcomes and facilitate academic success. These components are:

1. Grit and Growth

This refers to the importance of having a growth mindset as outlined above and grit – the determination and drive to stay focussed, to persevere in challenging situations and to persist through to reaching long-term goals. The two are related; developing a growth mindset also helps to strengthen grit (Duckworth, 2013). Students who have this set of beliefs, attitudes and dispositions “believe that intelligence is malleable, have confidence in their ability to shape their future and to learn new concepts and material and value their own efforts to achieve academic and learning goals” (Snipes et al., 2012, p. 7).

2. Identity and Community

This refers to the sense of belonging that students have in their classroom or learning community and the degree to which they see themselves as having a learner identity (i.e., being a learner). Learners who have a positive learner identity should also “take pride in belonging to their learning community, be comfortable in speaking up and actively engaging in the learning that takes place in that community and contribute to the building of a learning community through their engagement as a learner and a teacher of others” (Snipes et al., 2012, p. 7).

3. Passion and Purpose

This results when learning is interesting and enjoyable and is relevant to real-world goals. This concept includes the extent to which students “see the connection between school and future goals, careers, and success, value learning, both for its own sake and for what it can do for them and find the content of learning relevant to themselves and their communities” (Snipes et al., 2012, p. 7).

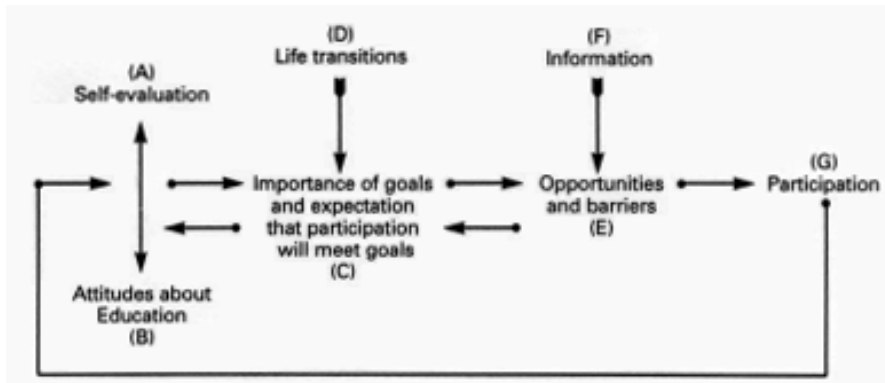
The theory is based on research which has shown that students with the above beliefs and attitudes are more likely to sustain positive academic behaviours, develop effective learning strategies and achieve than those who do not (e.g., Yeager & Walton, 2011; Farrington et al., 2012)

2.2 Models of Participation and Persistence in Education

2.2.1 Chain of Response Model

A popular model of adult participation in learning is Cross's (1981) chain of response model which can be seen in Figure 2 below:

Figure 2. Chain of response model



Source: Cross (1981, p. 124)

The model highlights six factors that influence participation and shows the relationships between them. The model proposes that individuals must first possess positive self-perceptions (A) and attitudes towards education and learning (B), for example, they must perceive that they are able to learn, have the confidence to do so and believe that learning is a positive experiences. Attitudes and perceptions are influenced by previous experiences in learning, peers and norms (see the section below on dispositional barriers for more detail). Self-perceptions and attitudes influence each other and attitudes towards learning influence and are also influenced by the value that the individual places on the goals that would be achieved through participation and the likelihood that the goals will be met (C).

External environmental factors (D), for example, 'critical incidents' such as a loss of job or a new child, also impact on goals often changing their importance and bringing new ones to the forefront. The more important an individual perceives the goal to be the more likely they will be to seek opportunities and overcome barriers in order to achieve it (E). If they do not highly value a goal or expect that participation will help them achieve it then they are likely to be discouraged from participation by a lack of opportunities and barriers to learning. Lack of information (F) on learning and funding opportunities may make barriers seem insurmountable.

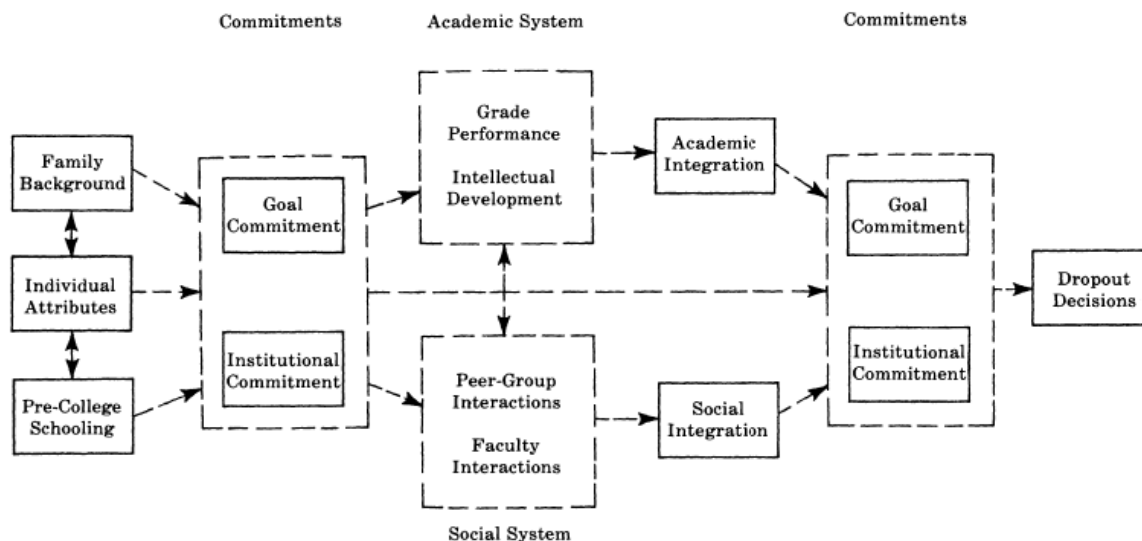
The likelihood of participation increases with the amount of positive responses along the chain. The model is reciprocal in that participation in learning will, in turn, influence self-perceptions and attitudes towards education. When the learner has decided to participate

and has enrolled in a course the cycle will start again with positive responses resulting in persistence and negative responses resulting in drop out.

2.2.2 Longitudinal Model of Dropout

Tinto's (1975, 1993) model of persistence (Figure 3) was proposed based on a literature review of the area and is still widely cited today.

Figure 3. Tinto's longitudinal model of dropout



Source: Tinto (1975, p. 95).

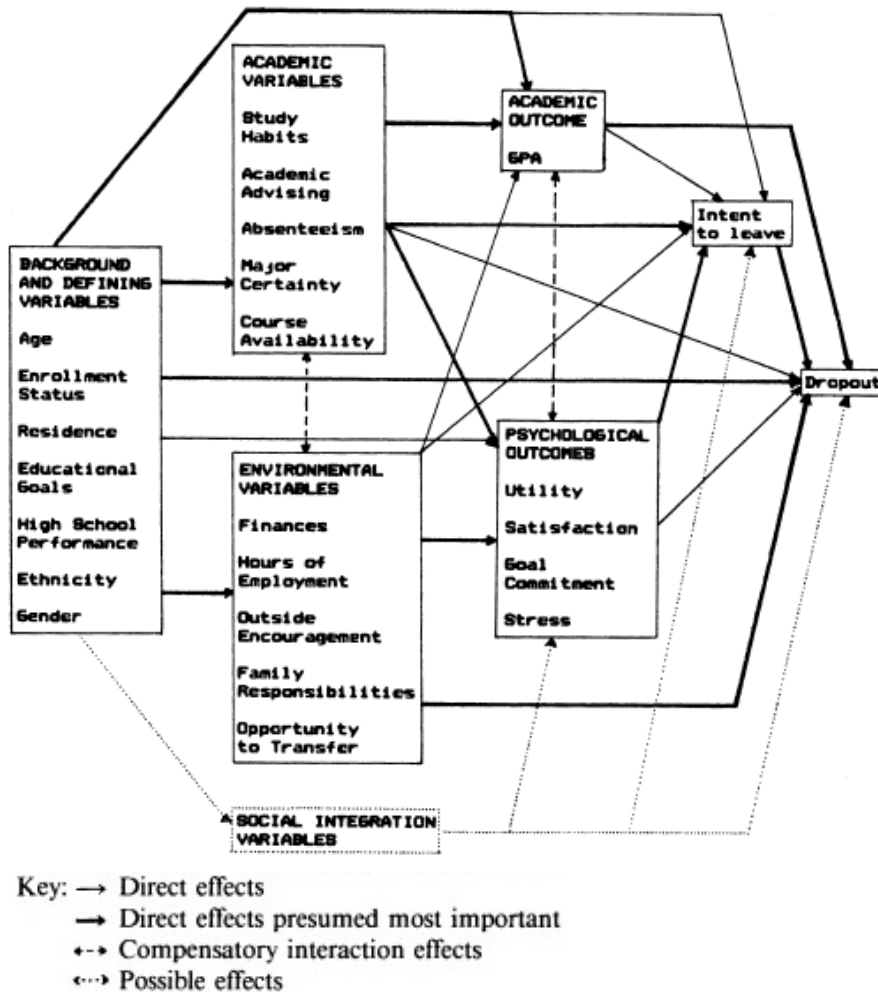
The model, which is based on persistence in college, proposes that an individual's decision to drop out or remain in learning is based on their interactions with academic and social systems over time and how integrated they become in these systems. These interactions modify commitments that the individual has to their goals and the institution and low commitment to either may result in drop out. The model also acknowledges the important role of an individual's attitudes, attributes, beliefs, experiences and backgrounds in persistence as well as participation.

2.2.3 Model of Non-traditional Undergraduate Student Attrition

Bean and Metzner (1985) adapted Tinto's model for non-traditional students, who they defined as being over 24, not living on campus, attending part-time, less influenced by the social environment of the institution and more focussed on education and acquiring a qualification. This model may therefore be more relevant to adult learners. Their model (Figure 4) was the first to include external, environmental barriers to persistence and they

argue that non-traditional students are more affected by these barriers and less by the extent of social integration than traditional learners.

Figure 4. Bean and Metzner's model of non-traditional undergraduate student attrition



Source: Bean and Metzner (1985, p. 491)

2.3 Summary

The theories outlined above suggest that engagement and persistence in adult learning can be supported through approaches that:

- Are learner-centred and tailor learning to the needs, goals, motivations and interests of the learner,
- Explicitly highlight the benefits of learning in terms of how what is being learned can be applied in real-life contexts,

- Are collaborative between teachers and learners allowing for joint planning of the learning journey including formulating objectives, goals and learning plans and mutual evaluation,
- Are collaborative between learners, establishing inclusion and peer support,
- Foster an inclusive learning environment making learners feel safe, capable, accepted and connected with both their teacher and other learners,
- Foster intrinsic motivation,
- Foster positive attitudes towards learning, growth mindsets, self-efficacy and self-esteem,
- Frequently reward progress fostering feelings of competency and confidence,
- Help the learner overcome barriers to learning,
- Take into consideration learners' backgrounds, experiences and knowledge,
- Use learning content and styles that are appealing enough to keep attention.

Indeed, much of the research investigating what works in terms of engagement, persistence and success in adult basic skills learning has highlighted the efficacy of provision and teaching styles that incorporate some or all of these elements. In understanding how adults learn and the factors that influence decisions on participation and persistence we can start to see both how people may be encouraged into and supported to stay in learning and how people may be deterred from doing so. In the next sections we explore the reasons why adults participate in basic skills training and have a more in depth look at the barriers to learning that they may face before moving on to ways in which they can be overcome.

3 Motivations for Participating in Learning

Adult literacy and numeracy learners often have multiple reasons as to why they want to learn and develop their skills and these motivations may change as circumstances and priorities change in their lives (Barton et al., 2006). Learners frequently cite experiencing both intrinsic (for personal reward) and extrinsic (for external reward) motivations to attend classes and these can be categorised into five groups (Vorhaus et al., 2011):

1. Motivation by requirement; e.g., learner is mandated to go on a course.
2. Motivations related to work; e.g., attending a course in order to get a job or to move to a higher level of employment.
3. Motivations related to education; e.g., wanting to continue with/better education, wanting a specific qualification or wanting to help children with homework.
4. Motivations related to closed personal goals; e.g., to simply gain confidence in literacy and numeracy.
5. Motivations related to wider personal development; e.g., to increase confidence generally, to better oneself, to be better parents, to be more successful.

Commonly cited motivations to undertake literacy courses in specific are to gain qualifications and skills for employment, to improve skills not gained in school, to meet others and to help children with their school and homework (Rhys Warner & Vorhaus, 2008). In contrast, motivations for undertaking numeracy courses have been found to be less work or skills focused and more personal/social such as peer pressure, changes in circumstances, to help children, for enjoyment and to be able to do well in a subject that they see as being a sign of intelligence (Coben, 2005; Swain et al., 2005)

A study of over 1,000 adult literacy and numeracy learners suggests that although overall literacy and numeracy learners have very similar motivations for learning, motivations do vary with learner characteristic such as age, the course level and type of provision (BIS, 2013). Younger learners were more likely to report that they were motivated to enrol on a course by peers or a respected figure such as a previous teacher. Older learners were more likely to cite motivations related to employment, further education and improving confidence and self-esteem.

Learners enrolling on entry and lower level courses and those studying towards the Certificate in Adult Literacy or Numeracy frequently cited social and psychological motivations for learning (e.g., the chance to meet people, improving self-esteem, helping children with homework, improving everyday life skills) and many said that they had been encouraged by family and friends to enrol. Those on or progressing to higher level courses and those working towards GCSEs were more likely to cite motivations related to work or education (e.g., that they were required to do the course for work or that they were doing the course so they could meet the entry requirements for another course).

4 Barriers to Enrolling, Participating and Persisting in Adult Learning

Cross (1981) identified three main types of barriers to participation and persistence:

1. Situational: barriers relating to a person's circumstances and that arise in everyday life;
2. Institutional: barriers put in place by the education system, institutions and providers; and
3. Dispositional: attitudes, perceptions and expectations that prevent people from undertaking learning.

Of these, situational barriers are the most common reasons people give for not engaging with adult skills training. In a Basic Skills Agency (BSA; 2000) survey 51% of adults felt that being too busy and not having enough time was the main barrier to improving their basic skills. Other main reasons given were the inability to get time off work for learning (17%) and financial constraints (13%). This finding was supported by Tomoana and Heinrich (2004) who found that frequently cited reasons for non-engagement with literacy courses were work demands, financial and childcare constraints and the distance to travel to the class. Reasons relating to personal circumstances are also commonly cited reasons for withdrawal from learning (Kambouri & Francis, 1994; Barton et al., 2006). However, it is possible that many people may not want to admit that dispositional or institutional barriers have stopped them from participating in learning and so they cite situational barriers as their reasons as they are 'easier' reasons to give. Litster (2007) concludes that dispositional barriers are likely to have the largest impact on learner engagement and persistence and that it is these barriers that practitioners may understand the least.

Outlined below, under each type, are commonly cited barriers to enrolling, participating and persisting with adult literacy and numeracy courses. It is worth noting that many of these barriers (particularly situational and dispositional ones) may also affect attendance once a learner is enrolled onto a course. Attendance has been linked to withdrawal with research showing that people who leave courses attend less than those who persist (Kambouri & Francis, 1994; Brooks et al., 2001b).

4.1 Situational Barriers

4.1.1 Cost

Cost is continually cited as a major barrier to adult learning in many studies although cost may not be such a barrier to adult English and maths learners in the UK as these courses are free to anyone without a Level 2 qualification. Cost is however cited as a major barrier to workplace learning where some learners have to contribute towards courses (Stuart et al., 2010).

4.1.2 Location

The location of the course may act as a barrier to learning in two ways. When courses are located a distance away from the learner, travel costs, lack of transport, length and ease of journey and the learner's ability to travel may deter people from learning. This may particularly affect people in rural areas (Atkin et al., 2005; Ward, 2007) and over-crowded urban areas where local provision is lacking (Frumkin et al., 2007).

Learners may also be put off attending courses at large, formal institutions because of a lack of confidence, personal problems such as alcoholism that make them feel out of place amongst others not experiencing such problems, or previous negative experiences that they have had at such places when at school (Barton et al., 2006; Reisenberger et al., 2010).

4.1.3 Childcare

Lack or the cost of childcare is frequently cited as a barrier to learning, particularly for women (Litster, 2007). Drummond and Gawn (2006) conclude that many learners will be prevented from engaging, participating and progressing in their learning if onsite child care is not available. This may particularly affect poorer learners, learners in rural areas (Atkin et al., 2005) and those from minority groups where leaving children in childcare is culturally unacceptable even if it is available (Reisenberger et al., 2010).

4.1.4 Lack of Time

Learners often state that they are too busy or don't have the time to undertake learning and this may be relevant to members of minority groups in particular as they often work long and unsocial hours in service industries (Reisenberger et al., 2010).

4.1.5 Lack of Support

Another significant barrier to enrolling and persisting with learning is lack of support from family, friends and other significant people in the learner's life. In some cultures learning

may not be seen to be important and this may lead to potential learners encountering resistance and a lack of support from their support network (Reisenberger et al., 2010). Although perhaps not a representative sample but nonetheless an interesting snapshot, a study of ALN provision in Hackney and Brent found that many learners came from backgrounds where learning was not a priority and faced such resistance from family and peers (Drummond & Gawn, 2006).

4.1.6 Work Commitments

Half of the people with poor basic skills are employed (Reisenberger et al., 2010). These potential learners face barriers to learning if their employers are not flexible in accommodating their learning, for example, not letting them re-arrange work shifts around classes or letting them have time off for assessments. Learners frequently leave courses if they are offered employment as often their classes do not fit in with their new work schedule. This is particularly relevant to Job Seeker's Allowance claimants.

4.1.7 Time Needed to Make Progress

Based on research in the USA by NCSALL, the NRDC estimates that in order to progress one level within the national qualifications framework, learners need to spend at least 150 hours of 'time on task' (combined formal and self-study). Research has also suggested that gains for learners occur after around 100 hours of tuition (Comings et al., 1999; Benseman et al., 2005). This is a considerable time commitment considering that most adults find attending 75 hours a year difficult (Vorhaus et al., 2011).

4.2 Institutional Barriers

4.2.1 Accessing Course Information

A survey of community learners (Harding et al., 2013) carried out by BIS found that learners sometimes had difficulty accessing information about courses or were not aware of courses available to them. Some learners relied heavily on passive methods of becoming aware of courses such as word of mouth or posters in schools and were not used to sourcing course information on the internet. This highlights the need of institutions to make sure that their marketing reaches all audiences, particularly harder to reach learners.

4.2.2 Limited Provision

Learners may be deterred from institutions that offer a narrow range of courses or courses that are not appropriate to their level. They may also be deterred by the way provision is delivered, for example, if it is in classes with large numbers of people or requires use of skills that they do not have such as ICT skills.

4.2.3 Assessment Styles

Although some learners may like formal assessments such as tests and exams as they find them motivating and confidence boosting, others may be completely put off courses because of them (and may even leave to avoid them) especially if they have had bad experiences in the past (NIACE, 2006, Ward & Edwards, 2002).

4.2.4 Inconvenient Class Times

Along with the location of the course, the time of day that classes are held can also affect participation (Rhys Warner & Vorhaus, 2008). A study by the National Audit Office (NAO; 2004) suggested that many courses were not flexible enough to support persistence in learning, for example, being held only at times out of school hours where learners with children would have to arrange childcare.

4.2.5 Inadequate Initial Support into Learning

The first three weeks of a course are a critical period for withdrawal (Quigley & Uhland, 2000), emphasising the importance of adequate induction, orientation and initial support into learning. It is important that learners are matched to appropriate courses at the right level for them during enrolment as mismatching is likely to lead to learners dropping out of courses (NRDC, 2008a) as is provision of inadequate information, advice and guidance (Lopez et al., 2007). Community learners reported that making sure they were on a course at the right level for them was very important and they felt that this was the institution's responsibility (Harding et al., 2013).

Initial assessments and inductions that are not accessible, learner-centred or that are negative experiences for learners may deter them from continuing onto the course and from accessing learning in the future (NRDC, 2008a). Learners who start later onto courses are of particular risk of not being provided with adequate induction. These learners are more likely to leave a course early than learners who began at the start of a course (NRDC, 2008a).

Persistence may be linked to having experience learning and with knowing how to learn (Vorhaus et al., 2011); basic skills learners who have no prior qualifications, no previous experience of self-study or who have not previously engaged in vocational or basic skills training are more likely to drop out of courses than those who have (Comings et al., 1999; Cara et al., 2009). This highlights the importance of providing adequate support to inexperienced learners in particular both during the initial enrolling and settling in period and throughout the course. If these learners can be supported through to obtaining their first qualification they may be more likely to go on to undertake further study.

4.2.6 Lack of Support of Different Persistence Pathways

The MDRC/NCSALL persistence project (Porter et al., 2005) studied patterns of participation and concluded that learners displayed five 'persistence pathways':

1. Short-term pathway: learners who participated intensively for a brief period of time to accomplish a specific short-term goal. These learners either overcame or did not have any situational or dispositional barriers to persistence.
2. Tryout pathway: learners who again participated on a short-term basis but either faced barriers to persistence that they could not overcome during the time they participated or were unable to sustain their motivation as they lacked clear or attainable goals.
3. Intermittent pathway: learners who dipped in and out of learning usually due to situational barriers to persistence. These learners required longer periods of time to make gains in literacy due to their inability to stay in learning continuously.
4. Long-term pathway: learners who participated consistently on long-term programmes and were able to overcome barriers to persistence in order to do so.
5. Mandatory pathway: learners who were required to attend programmes. These learners participated over longer periods and their participation was usually regular but they left programs abruptly when they were no longer required to participate.

Given the length of time required to make significant gains in literacy and numeracy the long-term pathway is the most optimal one for achievement but following this pathway is not realistic for many learners due to the barriers that they face. Indeed, only a minority of students in the above study followed this pathway. However, this pathway is the one that most programs assume that learners will take and so often other pathways are not supported. Students may be less likely to persist or even enrol onto courses if they perceive that this is the only pathway available (Porter et al., 2005).

Often providers are not able to support learners who leave courses back into learning and doors are often closed to learners who have left a course but want to return (Litster, 2007). However, leaving learning can be a rational, necessary and positive response to a change in circumstances and learners should not be penalised for doing so especially if they wish to return to learning in the future.

It seems that there are disparities in the way that providers and learners view leaving courses with providers seeing leaving as dropping out altogether and learners viewing it as dipping out for the time being. Learners do not view leaving courses as dropping out or as an end to learning (Belzer, 1998); some students in the above persistence study

that staff had labelled as 'dropouts' even stayed in contact with the program during periods when they were unable to attend. Persistence is not supported by providers who are not flexible enough to accommodate different persistence pathways or who cannot support learners back into learning or during breaks from learning.

4.2.7 Funding

Funding arrangements in adult learning can impact on learners if funding is inconsistent, short-term or does not meet the needs of learners both putting people off learning and discouraging persistence. This is particularly relevant to learners who may need intensive and/or long-term provision.

4.2.8 Focus on Targets

When institutions are under pressure to meet attendance, achievement and completion targets there is a risk that they may prioritise learners that they think will help them meet these targets over those that may not such as entry level or older adult learners (NRDC, 2008a). Targets may also affect the type of courses given, limiting choice and flexibility which may then impact on persistence (NRDC, 2008a). Managers and practitioners interviewed as part of a study looking at effective strategies to support learner persistence, progress and progression (NRDC, 2008a) expressed concerns at not being able to offer progression routes for learners who would be unable to achieve qualifications within the time frame required of them.

4.2.9 Quality of Learning Experience

The quality of the learning experience is strongly associated with completion rates (Tusting & Barton, 2003). Lack of support and teaching that is of poor quality and not personalised to the learner are all barriers to persistence and progression (e.g., Casey et al., 2006; Hamilton et al., 2007). Cara and de Coulon (2008) also showed that learners' attitudes towards and progress in numeracy were strongly associated with the number of years experience and the level of qualification that teachers had. Learners showed greater improvements in numeracy if they had teachers who had a Level 3 or above qualification in maths.

4.2.10 Accessibility to All Learners

Institutions that do not appear culturally aware or diverse or do not incorporate different cultures into their curriculum may alienate non-White learners. Research has highlighted a lack of Black and Minority Ethnic teachers (who could act as role models), a lack of appropriate support (particularly pastoral) and a lack of cultural awareness and understanding from teachers as significant barriers to participation and achievement of Black and Minority Ethnic learners (Frumkin et al., 2007; Reisenberger et al., 2010).

4.3 Dispositional Barriers

4.3.1 Negative Learner Identity

An individual's learner identity (or self-concept) is essentially how they view learning and themselves as a learner - the beliefs and attitudes that they hold about learning and their own abilities. These identities develop over time, shape behaviour and decisions and are strongly influenced by experiences with learning and the learner identities of peers and family members.

Experience in compulsory education and family background and educational experience are strong predictors of lifelong participation in learning. Gorard et al. (2006) argue that this may reflect the influence of these predictors on learner identities and that it is these attitudes and beliefs about learning that then determine future participation in learning. An individual who comes from a family where learning is not valued, where the norm is not to participate in post-school learning, who was unsuccessful in school or had negative school experiences is likely to form a negative learning identity at a young age that can create lifelong attitudes to learning (Gorard & Rees, 2002; Gorard et al., 2006). These individuals tend to view post-school learning, be it in higher education, adult education or work-based learning, as irrelevant and unnecessary (Gorard et al., 2006). When attitudes and beliefs are so strong, situational and institutional barriers become irrelevant as even if these barriers were removed the individual would still not want to learn.

In Britain, negative learner identities may be reinforced by a culture that places stronger emphasis on the importance of working over learning (Bynner, 1998). Individuals who have a strong work identity may view learning as useless as they believe they can easily get a job without a qualification and that qualifications are only useful for progressing in education and not work (Gorard et al., 2006).

Identities are strongly linked to self-efficacy (Bandura, 1977) – how much belief we have in our ability to complete tasks and achieve goals – which is strongly linked to persistence. If we do not believe that we can achieve something then we will not persist in trying to achieve it. Learners with high self-efficacy tend to work harder and persist longer than those with low self-efficacy who doubt their abilities (Lim, 2001).

4.3.2 Low Core Self-Evaluations

In general, our fundamental, core evaluations about ourselves and our abilities are determined by four personality dimensions; locus of control, neuroticism/emotional stability, generalised self-efficacy and self-esteem (Judge et al., 1997). Locus of control refers to the amount of control we perceive that we have over events in our lives. People who have high internal locus of control believe that they have strong control over their

lives and surroundings whereas those who have high external locus of control believe they have very little control over these things. For example, when achieving a good test score people with internal locus of control would attribute this to their own ability and how hard they worked whereas people with external locus of control would attribute it to luck or the ease of the test. Neuroticism refers to the tendency to experience unpleasant feelings such as anxiety, depression, worry, envy and jealousy (e.g., Matthews & Deary, 1998). Those high in neuroticism experience such feelings frequently and react more negatively under pressure whilst those who are low in neuroticism are more emotionally stable. Generalised self-efficacy refers to the beliefs you have in your ability to perform well across a wide variety of situations, not just specific ones such as in learning. Self-esteem refers to the beliefs you have about your overall worth.

People who have high core self-evaluations therefore believe that they have control over events in their lives, are more positive and less susceptible to stress and have confidence in themselves and their own abilities. Those who have low core self-evaluations will lack confidence, will have a negative view of themselves and their abilities and will be likely to give up easily on tasks if they perceive them to be too difficult or if they induce negative emotions. These are all potential barriers to engagement and persistence with adult learning and the literature suggests that low self-efficacy and low self-esteem are particularly prevalent amongst adult learners.

In interviews with 70 learners studying literacy, numeracy or ESOL at Level 1 or below, Ward and Edwards (2002) found that many learners hadn't engaged in adult learning because they felt they couldn't learn. Many had negative perceptions of themselves and their learning ability, frequently referring to themselves as 'thick', 'stupid' or 'not clever'. The researchers found that these negative perceptions were sometimes reinforced by family or friends. A lot of learners also stated that a fear of looking stupid in front of others refrained them from asking questions or for help indicating the impact that lack of confidence/low self-esteem may have on learning. However, the study found that the learners' experience in adult learning was, for the majority, a positive one and lead to positive changes in self-perception, confidence and self-esteem.

4.3.3 Fixed Mindset

Along with individuals who have negative learner identities, those who have fixed identities or 'mindsets' will also possess beliefs and attitudes that will prevent them from engaging with adult education. Based on decades of research, Carole Dweck has shown that people believe that their basic qualities such as ability and intelligence are either fixed traits that cannot be developed or improved or are malleable and can change and develop over time with effort and hard work (e.g., Dweck, 2006). Learners who have fixed mindsets will believe that their knowledge cannot be improved upon and therefore that

they are incapable of learning (Kolb & Kolb, 2010). If a person believes that they cannot learn then they won't and will not engage with learning.

4.3.4 Previous Experiences in Learning

As discussed above, negative previous experiences in education can deter people from continuing with learning as an adult especially if they expect the learning experience to be similar or do not value learning. Previous research indicates that many adult learners have had negative childhood education experiences (possibly a factor in their need for further education as an adult) and acknowledges the difficulties in engaging these learners (e.g., Barton et al., 2008; Reisenberger et al., 2010). Adult learners may also bring misconceptions and misunderstandings that were not corrected during childhood with them to adult learning and these may act as barriers to progression if not identified and corrected by teachers (Coben, 2003).

4.3.5 Lack of Motivation

Much research has shown that how motivated a person is to learn is a strong predictor of enrolment, persistence and success on basic skills courses (e.g., Gorard et al., 2004; Webb, 2006; MacLeod & Straw, 2010). Motivation to learn is affected by many things including beliefs and attitudes towards learning (see above on learner identities), how learners perceive themselves and their future possibilities and their position in society (Litster, 2007). Adult learners that are enrolled on to basic skills courses as a mandatory requirement (e.g., at work, in order to receive benefits or as a result of being in prison) are particularly lacking in motivation as they did not actively choose to participate and often do not engage with or even attend courses and are difficult to support (e.g., O'Grady & Atkin, 2006; Litster, 2007). Forcing adults into learning does not motivate adults to continue with learning after the course and can lead to increased resistance to further learning (O'Grady & Atkin, 2006; Wolf & Evans, 2011).

4.3.6 Non-awareness of Training Need

Linked with motivation, many adults are either not aware that their basic skills are lacking, are aware but do not want to admit that they are or do not believe that training will be beneficial to them. Unless something happens in their lives that leads them to re-appraise their skills (a 'critical incident' such as having a child, change in job or becoming unemployed) or unless the benefits of learning are made explicit at the individual level these potential learners will probably not engage with adult learning (NRDC, 2006; Frumkin et al., 2007).

4.4 Summary

There are many barriers to learning and these are commonly categorised as being either situational, institutional or dispositional in nature. Commonly cited situational barriers to learning include cost, the location of the course, work commitments and lack of childcare, transport or time. Institutional barriers are those put in place by the institution offering the course and these include inconvenient class times, limited provision, lack of information about courses, funding restrictions, poor quality teaching, lack of support and guidance, lack of inclusion for all learners and a lack of flexibility in being able to support people who may need to dip in and out of courses. Dispositional barriers include negative attitudes and beliefs about learning that are often established during childhood and are reinforced by like-minded peers, low self-esteem and self-efficacy (belief in abilities), fixed mindsets, lack of motivation and a lack of awareness of training need.

Situational barriers are the most commonly cited barriers to participation and persistence in learning. However, it is possible that many people may not want to admit that dispositional or institutional barriers have stopped them from participating in learning and so they cite situational barriers as their reasons as they are 'easier' reasons to give. Dispositional barriers are likely to have the largest impact on learner engagement and persistence and it is these barriers that practitioners may understand the least. This is because when attitudes and beliefs are so strong, situational and institutional barriers become irrelevant as even if these barriers were removed the individual would still not want to learn.

5 Encouraging Participation and Persistence in Adult Learning using Different Types of Provision

This section reviews findings on the use of different styles of provision to encourage participation and persistence in adult learning.

5.1 Learner-Centred Approaches

Participation and persistence in adult learning can be encouraged when aspects of the learner such as their needs, strengths, ability, background and prior experiences are understood and taken into account and learning is tailored to the learner's goals, motivations and interests (e.g., Litster, 2007; Wlodkowski, 2008; Nash & Kallenbach, 2009; Reisenberger et al., 2010). This is not an easy task and often requires much experience and a wide range of teaching methods and strategies (Derrick & Ecclestone, 2008). Student centred learning can also lead to a deeper understanding of the subject and improved retention of knowledge (Petty, 1998; Brandes & Ginnis, 1986).

As highlighted earlier, motivations for learning are often complex and are inseparably linked to learners' identities, background and circumstances. Therefore it is important that teachers get to know their students as well as possible in order to acquire a good understanding of why they want to learn (NRDC, 2006). Once this is known, the teacher can help the student to persist in learning through reminding them of their original motivations along the way (especially during difficult times) and by tailoring aspects of teaching (such as activities and tasks set to the student) to their motivations, end goals and interests (Taylor et al., 2005; Hamilton et al., 2007).

5.2 Flexible Learning

As noted earlier, learners follow different persistence pathways with many dipping in and out of learning due to barriers they face but they are often not supported during breaks from learning or back into learning when they wish to come back. Many programs assume that learners will be able to overcome barriers, attend regularly and for the long duration needed to make significant gains in learning. A system that wishes to facilitate persistence needs to be able to accommodate learners on other persistence pathways with less consistent journeys. Although it is very difficult to predict which pathway a student will take (and their pathway may change over time anyway) much can be done to acknowledge, accommodate and improve persistence on all pathways (Porter et al., 2005).

Providers and teachers need to be more flexible and accept that learners may miss classes, may need to leave a course for a period of time or may need to change classes

or the times that they attend (NRDC, 2008a). They also need to view learners who leave courses as doing so for a limited time and not permanently and try to support these learners during breaks from learning. Below are ways in which these recommendations may be facilitated.

Teachers need to understand the different pathways to persistence and adjust their expectations of students and the way they teach and support students accordingly. Although students should be encouraged to attend as much as they can, they should also be made to feel that there is no stigma associated with missing classes or returning to the course after a sustained break in attendance. In acknowledging to students that long periods of regular participation may be difficult for some people (as if it is expected that some classes may be missed) strategies can be put in place right at the beginning of a course to support non-attendance. Students can be given information up front on how to continue learning outside of the classroom and the tools to do so. Computer-based and self-directed activities can be used when class attendance is not possible, although use of ICT should be well supported as learners may lose confidence and motivation if they have problems using ICT resources away from class (Vorhaus et al., 2011). These activities can be incorporated into individual learning plans so that learners always have tasks that they can work on if they find that they are unable to attend a class.

Providers can try to engage students that are not participating continuously by keeping in regular contact with them (e.g., through calling them on a monthly basis), updating them on any changes to provision or new courses/services that may be of interest to them or may fit their needs or asking them to participate in an exit interview that could provide the opportunity to reconnect with the course or may reveal needs that could be addressed elsewhere (Porter et al., 2005).

Although flexible courses encourage engagement, persistence and progression in some basic skills learners (e.g., Barton et al., 2006), it should be noted that for others (particularly those thought of as 'at risk') structure and routine are essential to successful learning (Lopez et al., 2007).

5.3 Blended Learning

With blended learning programs, provision is delivered partly through traditional, classroom-based, supervised learning and partly through online delivery so learners have some control over when and where they learn (Horn & Staker, 2011). The use of technology (such as computers, mobile phones and tablets) in this form of learning supports flexibility and can enhance the learning experience. Studies measuring perceptions towards the use of technology in learning have shown that adult learners generally find learning using technology a positive experience, are enthusiastic to use technology and value the chance to develop ICT skills, the instant feedback provided by

ICT applications and the ability to learn out of the classroom (particularly using mobile technologies) and at their own pace (BSA, 2000; Mellar et al., 2007; Hinman & Fletcher, 2008). Online learning not only supports flexible learning but can provide provision when face-to-face learning is not possible, such as when employees want to offer training but cannot offer it on-site (Finlay et al., 2007). Online learning also has the ability to reach a large number of learners efficiently, for example, over 3 million people have completed a course with learndirect since they began operating in 2000.

Use of technology can increase learner motivation which, in turn, encourages engagement and persistence (White, 2003; Benseman et al., 2005; Hamilton and Wilson, 2005; Evans and Waite, 2008) and can also increase confidence (Mellar et al., 2007; Silver-Pacuilla, 2008). It can also create a very different learning experience to traditional methods that the learner may have experienced before at school. This may help to break any negative associations with learning that a learner may have from previous experiences and may be more attractive for hard to reach learners (Coben et al., 2007; Mellar et al., 2007).

However, it should be noted that use of technology only encourages engagement and persistence under the right learning conditions and when learners have the necessary skills and confidence to engage with the technology. Although learners at all levels of literacy and language proficiency may be able to engage with online learning (Silver-Pacuilla, 2008), use of technology should be seen as an enhancement to and not a replacement of classroom teaching. Adult learners (especially those at a lower level) value contact with a teacher and classmates and the support they provide and without this they may not be able to persist and succeed in learning (Lopez et al., 2007). This indicates that blended learning approaches combining supervised, classroom learning with some online delivery may be more appropriate than fully online courses. Indeed, a recently conducted meta-analysis showed that students in the USA who received blended learning performed significantly better than students receiving typical face-to-face classroom learning but there was no difference in the performance of students receiving fully online instruction and those receiving face-to-face instruction (Means et al., 2013). This meta-analysis synthesised results from 45 studies across a range of learners from high school students to adults in professional training and so the findings cannot be directly applied to adult learners. The authors also note that results should be interpreted with caution as the delivery of provision varied greatly and could account for the effects seen, for example, students on blended learning courses typically had additional learning time, access to additional resources and took part in activities that encouraged more interaction with other learners.

Use of technology can demotivate and discourage persistence when access to technology is an issue and when inadequate support is provided by teachers. It is important that teachers are given enough time, training and support to refine their own

ICT skills and to gain an understanding of how best to implement the use of technology in their pedagogy and to use a wide range of technologies in innovative ways (Frumkin et al., 2007; Lopez et al., 2007).

5.4 Embedded Learning

Engagement, motivation and persistence are also supported when language, literacy and numeracy skills (LLN) are well embedded in courses (Lopez et al., 2007). Casey et al. (2006) conducted a large study including over 1900 participants on 79 National Vocational Qualification (NVQ) programmes that investigated the impact of embedding LLN provision on outcomes including retention and success. Participants were either working towards Level 1 or 2 qualifications in health and social care, hair and beauty therapy, construction, business or engineering.

Their quantitative analysis showed a significant positive association between the degree of embeddedness of LLN and course completion rates. There was a 15.8% difference in the percentage of people completing courses where LLN was embedded to some degree (77.4% completion rate) and the percentage of people completing courses where LLN was not embedded (61.6%).

Further analysis at the level of the course showed that this difference in retention was more distinct at Level 2 where learners who received embedded LLN provision had a completion rate 28.4% higher than those who received separate LLN provision. The difference at level 1 was 7% but this was not statistically significant.

Although the degree to which LLN was embedded in the course is likely to be one of many factors that influenced persistence in this study, qualitative data support the quantitative findings suggesting that embeddedness was an important factor in persistence. Data from interviews suggested that, for Level 2 learners, linking LLN learning to the vocational subject helped learners to overcome the stigma associated with having literacy and numeracy needs and helped them to cope with the course better.

In terms of overall success at achieving the course qualification, the study also showed a significant difference in the success rate (the percentage of people that started a course and achieved a vocational qualification at the end) of learners on courses where LLN was embedded compared to those on courses where it was not. The average success rate for learners on embedded courses was 70.5% - 15 percentage points higher than the average success rate for learners on courses where LLN teaching was not embedded (55.5%).

In terms of achievement of LLN qualifications, embedding was associated with an increase in the number of people achieving LLN qualifications across all levels from Entry to L2 in literacy and at Entry and L1 in numeracy. Analysis of learners assessed at below

Level 2 in literacy, language or numeracy on course entry showed that on courses where LLN provision was not embedded 50% of learners achieved literacy/ESOL qualifications and 69.6% numeracy. These figures rose dramatically for learners which received fully embedded provision; 92.8% of these learners achieved qualifications in literacy/ESOL and 93.4% achieved numeracy qualification. Even partially embedding provision had a strong effect on achievement, especially in literacy/ESOL where 85.5% of learners achieved a qualification (78.6% of learners achieved qualifications in numeracy).

Another important finding from the study that should be noted was that when one teacher was responsible for teaching both the vocational subject and LLN, the probability of learners achieving LLN qualifications was much lower than when courses were taught by a team of teachers that specialised in either the vocational subject or LLN and taught only their specialty. This indicates that the benefits of embedding learning on both success and persistence that are seen in this study may only be achieved when learners are taught LLN by LLN teachers.

5.5 Work-Based Learning

As previously mentioned, half of the people with poor basic skills are employed (many in low-skilled jobs) and are unlikely to attend learning at formal institutions because they either don't have the time, have irregular work patterns or are deterred by negative previous experiences in learning at formal institutions (Reisenberger et al., 2010). Providing basic skills training in the workplace, a completely different learning environment, provides an opportunity to engage these potential learners. Indeed, employees prefer to learn at work than to learn externally at education institutions possibly because of the social dimension of the learning experience and because they are in an environment that does not have negative associations attached to it (Evans and Waite, 2008).

Wolf and colleagues (e.g., Wolf, 2009; Wolf & Evans, 2011) conducted a longitudinal study to investigate the long term (1 year and 1.5 year follow-ups) impact of short (typically 10 weeks) workplace basic skills courses (literacy or literacy and IT courses) on improvement of skills. Although their findings showed little evidence that workplace learning lead to a significant improvement in literacy skills their study did show other encouraging findings in terms of engagement and progression in learning and attitude change towards learning.

Analysis of the demographics of the 532 learners showed that workplace courses reach learners who would not normally be involved in continuous education, most notably there were significantly more male and older participants on the workplace courses than in mainstream further education (Wolf, 2009). Over a third of learners (41%) were

employees for whom English was their second language. Almost all were in low-skilled, non-supervisory positions and had not undertaken any learning recently.

Participation on workplace basic skills courses lead to a lasting change in attitudes towards education. Seventy-five percent of learners said they felt differently about education after their course, in consistently positive ways. There were strong levels of learner satisfaction and many learners reported that the course had led to increased confidence in and outside of work and increased amounts of reading.

For learners who volunteered to go on courses (the majority), participation in workplace learning was strongly associated with participation in further education and training. This indicates that although skills gain on the workplace course may have been small, participation may have led to engagement with other courses where larger gains may have been made. It should be noted that learners who were effectively forced to participate in workplace courses were significantly less likely than voluntary learners to engage in further education or training.

The above study also reports interesting findings about the provision of basic skills courses in the workplace. For example, the authors wished to evaluate numeracy courses but they struggled to find workplaces offering numeracy courses. They also wanted to investigate whether use of learning materials tailored to the work sector and related to job-specific skills were more effective than generic learning materials but found that use of such materials was almost non-existent. Given the benefits of tailoring learning mentioned above in this report it is possible that workplace basic skills courses could be more effective in terms of engagement, persistence and skills gain if the material was directly related to work and learners could see how undertaking such a course would help them in their jobs.

Union Learning Representatives play a very important role in encouraging engagement and persistence in workplace learning (Stuart et al., 2010). Basic skills courses are more likely to be successful if trade unions are actively involved in workplaces that provide courses (NRDC, 2006). However, representatives report that engagement with learning is very dependent on managers and their attitudes towards learning and whether they actively encourage or block opportunities (Ross et al., 2011). Representatives can help mitigate situations where employees want to learn but are discouraged from doing so by their employer but this again shows the negative impact that attitudes can have on learning.

5.6 Short or Taster Courses

As previously stated, adult basic skills learners who have not previously engaged in adult learning are more likely to drop out of courses than those who have (Comings et al.,

1999; Cara et al., 2009). In a study of lifelong learning, Jenkins and colleagues (2002) found that undertaking one episode of lifelong learning increased the likelihood of an individual undertaking more learning in the future. Other research has shown that being on a course that does not result in a qualification is just as an important predictor of achieving Level 2 qualifications as being enrolled in training or achieving Level 1 qualifications (Sabates et al., 2007). This suggests that if inexperienced adult learners can be encouraged onto and sufficiently supported through any kind of course then this may be enough to put them on a path to engaging and persisting in further learning (Vorhaus et al., 2011).

Short or taster courses may be a particularly effective way of engaging potential learners and putting them on the path to further learning. An evaluation of short (3- and 6-hour courses) ICT courses (Kirk et al., 2001; Kirk & Kirk, 2002) showed that such courses attracted many people who would not have initially enrolled on a longer course but that around half of learners progressed on to another ICT course, mainly at a higher level. Progression may have been affected by the learners' experiences and perceptions of the course with bad experiences dissuading those from progressing. Only 17% of those rating the course as 'poor' progressed on to other courses, however ratings of 'excellent', 'good', or 'average' were associated with much higher progression rates (each around 50%). Learners generally described their experience of the course as positive and often talked about how they had gained the confidence to go on and learn something else.

Kirk and Kirk (2002) report that colleges offering taster courses often encouraged and enabled progression in the following ways:

1. Asking learners if there are any other courses they might be interested in and giving them a list of suggestions as part of a course evaluation form that they were asked to complete.
2. Including information about other courses in learners' course packs.
3. During the taster session tutors gave information or advice about other courses to either the group or individuals.
4. Offering a formal guidance interview.

Interestingly, the above study reported that around 10% of learners on the short courses had basic skills needs and highlighted the need for institutions and tutors to be aware of this and adapt content accordingly. They also go as far as to say that people with basic skills needs are likely to present themselves as ICT learners as they feel more comfortable admitting that they need support developing ICT skills than they do literacy and numeracy as there is less stigma involved with an ICT skills deficit.

The authors concluded that short courses play an important role in introducing people into adult learning and encouraging them into further learning when the learning experience has been a positive one and adequate support was received. Short or taster

courses allow people to sample the experience of adult learning, to see what the learning environment is like and to get to know a tutor. They can also provide the confidence required to sign up to a more formal course and allow an individual to gauge their ability and interest in order to decide what the most appropriate course for them is.

5.7 Community Learning

The Department for Business, Innovation and Skills funds a range of flexible courses, usually

unaccredited, for adults aged 19 and over through the community learning budget (£210m for 2014/15). This budget supports the following four programme elements:

1. Personal and Community Development Learning
2. Family English, Maths and Language
3. Wider Family Learning, and
4. Neighbourhood Learning in Deprived Communities.

Community learning courses cover a wide range of areas (e.g., parenting, family learning, health, arts and crafts, languages, ICT, employability etc.) including basic skills but these courses are just a small part of what community learning offers. Courses are designed to help people of all ages and backgrounds to pursue and interest, acquire a new skill, address a need, learn how to support their children better, re-connect with learning or prepare for progression on to formal courses.

Just like short courses, community and family learning courses also provide a good opportunity to 'hook' people into learning and engage people who would not normally consider enrolling onto more formal basic skills courses. The community learning learner survey (Harding et al., 2013; 2014) reports on a range of short and long-term outcomes of people engaged in all types of community learning. Although basic skills is only a small part of this, 35% of survey respondents reported that the course they went on helped to develop literacy skills and 25% reported that it helped to develop numeracy skills (note: this should be interpreted with caution as no actual skills gain was measured – these figures are based on self-reported perceptions). The survey shows similar outcomes to those mentioned above of short courses; increases in confidence, substantial engagement with further learning after undertaking the course and a growth in positive attitudes towards education (75% of learners agreed that they felt more enthusiastic about learning after the course).

In the first wave of the survey (conducted on over 4,000 learners up to 7 months after course completion), 52% of learners had already engaged in further learning with 70% of these learners reporting that the community learning course encouraged them to progress. This trend continued in wave two (conducted on just under half of the wave 1

learners approximately 18-24 months after course completion) where 43% of learners said that they had taken part in a taught course and 47% said they had undertaken some form of self-taught/individual learning since the first wave interview. Of the participants engaged in further learning since wave 1, 77% said that the original community learning course encouraged them to do another course.

The impact of undertaking the community course on progression to further learning was more marked for those people living in deprived areas – 85% of those from the three most deprived IMD (index of multiple deprivation) deciles reported that community learning had encouraged them to take another course compared with 74% of those from the seven least deprived IMD deciles. The same was true for people receiving unemployment-related benefits, income support, housing or council tax benefits – 85% of these learners were encouraged onto another course by their experience in community learning compared to 75% of learners not in receipt of these benefits. This highlights the efficacy of community learning courses in encouraging all types of learners, including harder to reach groups, to progress with learning.

Although the majority of community learning courses are on subjects other than basic skills, a lot can be learned from the effective ways in which community learning providers encourage people, especially harder to reach people, into learning and support them in persisting. These strategies, some of which are outlined below, could also be applied to encourage engagement and persistence with basic skills courses¹. They are drawn from two evaluations of community learning; the Adult and Community Learning Fund (ACLF; McMeeking et al., 2002; Sampson et al., 2004) and the Community Learning Trust pilot (CLT; Evans et al., 2014).

5.7.1 Taking Programmes to the Learners

Holding courses in safe, familiar and welcoming community settings such as cafes, community halls or even supermarkets rather than in formal educational institutions provides a completely different learning environment to the classroom which may have negative associations. In both evaluations many community learners said that they had had negative previous experiences of education and holding classes in places like the above that are not associated as being ‘for learning’ or ‘education’ makes them more accessible. These settings can also attract learners who lack the confidence to enrol at more formal institutions.

¹ Please note that it appears that none of these strategies have been robustly evaluated in their efficacy but have been reported in evaluations and reports as being useful for engaging learners and supporting persistence.

Another way of attracting learners is to hold learning at facilities already attended by targeted groups of people (e.g., centres that people are attending for treatment, therapy or support). Familiarity with the venue means that learners would not have to overcome any worries about finding and being in a new environment.

5.7.2 Flexible, Social and Informal Learning

As well as providing learning in non-traditional settings, providing a learning experience that is completely different from school may help people to overcome negative associations with learning. The ACLF evaluation highlighted that an informal style of delivery that allowed learners to work at their own pace and a social atmosphere that enabled learners to make friends and support networks were both crucial to persistence. Learner feedback from the CLT evaluation highlighted that learners felt more confident when they enrolled with someone they knew and so people may be encouraging onto courses by suggesting that they enrol with a friend.

5.7.3 Tailoring Provision to the Learner

The evaluations showed that persistence in community learning was also supported when provision was adapted to the learner's interests, individual needs and circumstances. Some learners, especially those more disadvantaged, led chaotic lifestyles that meant they could not attend classes regularly. These learners were supported through strategies such as providing one-on-one support to catch up with what had been missed or providing learners with activities that could be done outside the classroom.

Learners were engaged through attractive activities (such as using IT as a hook) and programmes that tailored provision based on interests and contexts (such as sport and DIY). Where specific, harder to reach groups were targeted into learning the CLT pilot evaluation found that this was facilitated greatly through partnership working (described in the next section) as partners often understood the needs of these groups and were able to help design and tailor provision. Peer research (asking people from targeted groups such as recovered substance abusers to talk to their peer group) was also used to gain an understanding of needs and what types of provision specific groups would be interested in.

5.7.4 Working with Partners

As mentioned above, working with partners such as specialist agencies across the voluntary and community sector or private partners can be particularly useful in engaging hard to reach and/or disadvantaged learners. This is because they have an

understanding of these people as well as experience with working with them and have often built trust and relationships with them already. The community learning pilot trusts were particularly effective in working with such partners who helped them to identify needs, map, design and deliver provision and recruit, support and retain learners.

The CLT pilot evaluation highlights how working with partners was useful in attracting and engaging men, people with mental health problems and people affected by substance misuse. For example, in Sunderland, the Wider Family Learning programme was delivered in partnership with Sunderland Football Club which helped to attract local people and achieved a 30% male participation rate in a range of employability and family learning courses. Persistence was supported by the incentive of free match tickets for course completers. In another attempt to attract men into learning, West of England CLT partnered with B&Q who provided DIY courses on their premises, promoted these courses on their website and blog and signposted learners to further provision.

5.7.5 Social Prescribing

The CLT pilots found that social prescribing approaches were useful in engaging people with mental health issues and deprived and disadvantaged families in community learning. The pilot trusts worked closely with key workers such as GPs and social workers to identify and recruit learners through 'prescribing' learning as part of their support package. 'Prescriptions' can include volunteering, basic skills learning, arts, exercise classes and self-help.

The West of England CLT worked with partners and used social prescribing to reach families and try to encourage them into learning that would help them move closer to employment. They worked with GPs, the Troubled Families team and Jobcentre Plus to understand the needs of their clients and to develop tailored provision that would both appeal to them and help them become more employable. The trust developed a clear, simple document about the courses that the partners could then give their clients when referring or 'prescribing' them to provision.

5.7.6 Recruiting Through Community Outreach

The ACLF evaluations showed that the most effective way of attracting learners was by word of mouth, particularly when outreach staff went out into communities to talk about courses and when they were also accompanied by successful learners who acted as role models (please see the section below on peer support).

5.8 Family Learning

Family learning comes under the community learning umbrella in terms of funding and there are two main types of programme: Wider Family Learning (WFL) and Family English, Maths and Language (FEML). Provision covers a diverse range of learning approaches in which children learn with their parents, grandparents or carers.

Family learning encourages adults into learning through their desire to support their children. This can be an effective way of engaging adults as studies have shown that parents are highly motivated to help their children develop both cognitively and socio-emotionally (e.g., Swain et al., 2009; Carpentieri et al., 2011). Retention rates for FEML courses are high - in 2011/12 of the 58,000 adult learners enrolled on FEML courses 87.8% achieved their learning aims (BIS, 2013) – indicating that this type of provision is effective in supporting persistence.

However, the impact of family learning on adult basic skills gain is inconclusive. Firstly, there is very little robust quantitative data on the benefits of WFL, mainly because of the nature of WFL programmes; they do not produce readily quantifiable outcomes and do not directly focus on improving basic skills. Secondly, evaluations of FEML courses have been conducted but they have mainly focused on literacy and not used robust methods with very few studies using a control group (Brooks et al., 2008a). As with much of the literature in the area of adult basic skills learning, evidence of skills gain from family learning tends to be based on evaluations and self-report rather than using standardised measures (NRDC, 2012). Finally, very little is known about how comparative adult skills gains on FEML courses are to those gained on other adult literacy or numeracy courses (Brooks et al., 2008a).

Although the evidence on benefits to parents' basic skills is mixed, there is good evidence to show that family learning has a positive impact on parenting skills, ability to help children with their education, self-confidence, self-efficacy, learner identity and attitudes to learning (OFSTED, 2000; Brooks et al., 2008a; NRDC, 2012). The 'softer' gains mentioned here may all impact on persistence and progression on to further study; there is some evidence that family learning courses provide a stepping stone on to further skills-focused learning (NRDC, 2012).

Another benefit of family learning is that it can often provide that 'critical incident' whereby adults become aware that their basic skills are lacking and may be motivated to do something about this. Once awareness is triggered, interest in improvement tends to follow (NRDC, 2006). Interestingly, Horne and Haggart (2004, p. 15), observe that, "despite the main motivation for many adults' participation in family learning being the support of their children's learning and development, parents often go on to address their own learning needs when attending family learning".

5.9 Summary

Research shows that the styles of provision that support participation and persistence in learning are those that support elements of the theories outlined at the beginning of this report. For example, learner-centred approaches to teaching allow learners some autonomy over their learning journey when the learner and teacher plan together what is to be learned, where, when and how and when learning content is tailored to the learner's goals, motivations and interests. When ALN provision is embedded in subjects that are of interest to the learner and in line with their goals this makes learning relevant and purposeful – learners can see directly how what they are learning will benefit them in the future. Blended learning courses where learners study in part online and in part in the classroom give learners flexibility in and autonomy over learning and provide a learning experience that is completely different to the one they experienced in school which may also encourage participation in courses.

Family English and maths learning (FEML) has been found to be especially effective in engaging and retaining adults possibly because parents are highly motivated to help their children develop both cognitively and socio-emotionally and this makes learning particularly motivating and relevant for them. However, the impact of FEML on adult basic skills gain is inconclusive. Evaluations of FEML courses have been conducted but they have mainly focused on literacy and have not used robust methods with very few studies using a control group and many measuring skills gain through self-report rather than using standardised measures. Very little is known about how comparative adult skills gains on FEML courses are to those gained on other adult literacy or numeracy courses.

Evaluations of work-based basic skills learning programmes have shown that they have little effect on improving skills (possibly because they are usually short in duration) but they do however have large impacts in terms of changing attitudes towards learning and increasing confidence and self-esteem. Importantly, these courses are effective in encouraging people into learning and engaging those who would not usually participate in adult education, most notably, males and older people. People who voluntarily engage in work-based learning often continue on to other learning and so although skills gain on the workplace course may have been small, participation may have led to engagement with other courses where larger gains may have been made.

Although the majority of short, taster and community learning courses do not address adult basic skills directly they have also been shown to improve confidence and self-esteem, change attitudes towards learning and encourage people on to further learning. These courses allow people to sample the experience of adult learning, to see what the learning environment is like and to get to know tutors. They may also provide a 'critical incident' whereby adults become aware that their basic skills are lacking and may be motivated to do something about this. It is therefore possible that if people can be

encouraged into and supported through short, taster, work-based, community or family learning courses then this may be enough to change their perceptions about themselves and learning and motivate and encourage them to address their basic skills needs.

Community learning courses cover a wide range of areas (e.g., parenting, family learning, health, arts and crafts, languages, ICT, employability etc.) including basic skills but these courses are just a small part of what community learning offers. Despite this, much can be learned from the effective ways in which community learning providers encourage people, especially harder to reach people, into learning and support them in persisting. These include taking programmes to the learners by hosting them in familiar, community venues, providing very informal learning with a large social aspect, adapting provision to the learner's interests, individual needs and circumstances, working with partners such as local charities and community groups who understand the needs of targeted learners and who are able to help design and tailor provision, social prescribing, and recruiting learners through community outreach.

6 Strategies for Encouraging Participation and Persistence in Adult Learning

This section outlines various strategies to encourage participation and persistence in adult learning that are based on theories and findings from both adult learning and the behavioural sciences.

6.1 Identifying and Utilising Teachable Moments

As the principles of andragogy suggest, adults need to be ready and willing to learn and need to see the relevance of learning and how it will benefit them. The literature reports that people often address their skills shortages at critical moments in time when they are made aware of their lack of skills and believe they need to learn (also known as teachable moments) such as when they lose a job or change employment, go to prison or try to help a child with homework. These are good moments to try and encourage people into learning (prompting them at a time when they may be most receptive) and this is done to some extent by advertising courses in schools, workplaces and job centres and in family learning.

As previously mentioned, family learning can often provide that 'critical incident' whereby adults become aware that their basic skills are lacking and may be motivated to do something about this. Once awareness is triggered, interest in improvement tends to follow (NRDC, 2006) and although adults may initially engage with adult learning to help their children develop they often go on to address their own learning needs (Horne & Haggart, 2004). Another good time to approach potential learners may be when they reach out to community and voluntary sector groups and there is some evidence that engaging learners in this way is successful (Hamilton & Wilson, 2005), particularly through personal approaches by outreach workers (McIntosh, 2004).

6.2 Ease of Access

People may be encouraged both into learning and to persist in learning when situational barriers are removed and when physical access to courses, access to information about courses and sign-up processes are easy. As previously mentioned, access is a considerable barrier to learning and people can be put off attending courses that are far away, difficult to get to via public transport or are hosted at formal educational institutions. Holding basic skills courses in accessible locations and/or in less formal community settings is popular with learners and encourages take up of courses (McIntosh, 2004; Evans et al., 2014). There is also evidence to suggest that some learners may be particularly in favour of learning at home as long as they are given adequate support (Merton, 2001; Sticht, 2001). Assistance with childcare (particularly

provision of onsite childcare), transport or travel costs and access to social services can also encourage engagement and persistence (Vorhaus et al., 2011).

Lack of access to information about courses has been cited as a barrier to engagement (e.g., Harding et al., 2013) and providers should consider how they can best disseminate information about courses that is clear and easily understandable to everyone. The community learning survey (Harding et al., 2013) highlighted the importance of not just relying on the internet to disseminate information as some learners, especially those classified as hard to reach, may have difficulties accessing the internet and are more used to finding out information through more passive methods such as word of mouth or seeing locally placed advertisements.

The procedure for signing up to courses should be made as easy and as accessible as possible. Simplifying and/or helping people to fill out application forms may have a marked effect on enrolment. For example, in one study the authors tested whether streamlining the application process for university financial aid, providing assistance with completing the application form and providing personalised information about the aid available had a greater effect on increasing application submissions than just providing the information or doing nothing (control). The results showed that, compared to the control, streamlining the process and giving assistance resulted in 40% more submissions but that simply providing information had no effect on submission rates. This subsequently resulted in those receiving the simplified process and assistance being more likely to enrol and persist in university and receive more financial aid in the future (Bettinger et al., 2012).

6.3 Marketing

Marketing is an important aspect of recruiting learners to courses and can be instrumental in developing good first impressions and the credibility that leads to sustained engagement (McNeil & Dixon, 2005). When advertising courses, it is important to do so in a way that will have the maximum effect at drawing people in. Marketing materials such as leaflets, adverts and flyers can be made more effective in a number of ways including:

6.3.1 Making them Attractive

In order to get a message across to someone they must first see the message and so marketing materials need to be eye-catching and capture attention. This can be done by making materials and messages simple, novel (e.g., using irregular shaped flyers and not standard square or rectangular ones), vivid (e.g., using colours and messages that are eye-catching and memorable) and personal (e.g., messages that are relatable and not abstract). Incentives, discussed in more detail in the incentives section below, can make

courses attractive and any incentives offered should be advertised whether they are monetary or other things like free tea and biscuits, free transport or free childcare.

6.3.2 Making them Targeted

Targeting specific groups of people known to have poor basic skills may raise awareness of the need for training amongst these groups and may motivate people to enrol (Michael & Hogard, 1996). Effective messages are developed with the audience in mind and therefore it is important to understand the attitudes, beliefs and behaviour of intended audiences in order to determine how best messages can be communicated to them (McKenzie-Mohr & Smith, 1999).

6.3.3 Framing Messages Effectively

According to Prospect Theory (Kahneman & Tversky, 1979) we have a tendency to be loss averse – we prefer avoiding losses to acquiring gains of the same value. Therefore, messages that emphasise the losses that occur as a result of inaction are likely to be more effective than those that emphasise the benefits of action (Davis, 1995; McKenzie-Mohr & Smith, 1999).

Such loss framed messages proved very effective in encouraging people into learning when used during the ‘Get On’ or ‘Gremlins’ advertising campaign that was a part of Skills for Life. Research for the campaign showed that people lacking in basic skills felt that this was their own problem to fix at a time that they felt right and were unlikely to be encouraged into learning by organisations or advertising (Barnes, 2002). The research found that people did not feel that their lack of skills impacted greatly on their lives as they had developed ways of coping. However, the emotional response of the non-learners to their lack of skills was very similar, with nearly all expressing frustration with themselves at times for not being able to do tasks and that they lived with the fear that their lack of skills would be found out and the loss of confidence that would occur if that happened. Researchers found that demonstrating the benefits of improving skills did not convince people into learning but that confronting people directly with the losses involved in not improving them, i.e., having to live the rest of your life feeling frustrated with yourself, had a substantial impact (Barnes, 2002).

6.3.4 Evoking Positive Emotion

Emotional reactions to things we see and do are often rapid and automatic and given that many people lacking basic skills may have negative associations with learning, it is possible that they could be immediately put off engaging with promotional materials connected to learning because of their affective response to them. It is therefore important to consider this when designing and wording marketing materials. As is discussed in more depth in the next section on labelling, courses marketed as not being

directly linked to basic skills training are often found to be more appealing and engaging. For example, using titles such as 'managing your money', highlighting the social and informal aspects of courses and emphasising the real-world benefits of learning such as helping children with homework may all be ways of evoking positive rather than negative responses.

6.3.5 Using Influential Others

As will be discussed to a greater extent in the section on peer support below, we are heavily influenced by similar others (e.g., Cialdini, 2007). Using pictures and case studies of people who are similar to those that are being targeted in marketing materials may be influential in encouraging people into learning. The people and/or organisations that deliver the message should also be credible (i.e., have expertise, authority or are seen as being trustworthy) as the more credible they are the more influence they will have (McKenzie-Mohr & Smith, 1999).

6.3.6 Using Scarcity

Opportunities seem more valuable when their availability is limited (e.g., Cialdini, 2007) and this is linked to our aforementioned tendency to be more motivated to avoid losing something than to gain something of equal value. Advertising courses as being limited in the number of places available may motivate people to enrol.

Consideration should also be taken as to the best way to deliver marketing materials. Hard to reach learners typically find out about courses through word-of-mouth (Jameson, 2001; Aldridge & Tuckett, 2002). Leaving adverts in places in the community frequented often by these people such as drop-in cafes, community or day centres, job centres or surgeries allow workers in these places to inform potential learners about the opportunities available.

People with basic skills needs watch more hours of television than the average viewer and so are likely to be reached through media campaigns (Love & Banks, 2001). For example, when a soap opera ran a storyline where a character faced and overcame basic skills deficiencies learndirect received 10,000 enquiries for further information (Love & Banks, 2001). The 'Gremlins' adult literacy and numeracy campaign also received a good response with up to 350,000 people contacting the associated advice line (DfEE 2001; NAO, 2008) although the costs of such campaigns are extremely large (£26 million; NAO, 2008).

Finally, face-to-face community outreach has also been successful in encouraging people into learning, particularly when the needs of the community are taken into account (McMeeking et al., 2002; Sampson et al., 2004).

6.4 Labelling

A number of studies have shown that the way courses are labelled and branded, particularly using the words 'English', 'maths' and 'basic skills' can deter potential learners (e.g., McNeil & Dixon, 2005; NAO, 2008,). This may be because of the stigma associated with being deficient in such skills - Reisenberger et al. (2010) reported that one Skills for Life co-ordinator they interviewed said that the initiative was not always perceived positively by learners because it carried the stigma of not being able to read or write. Another said that nobody would turn up to sessions if they were labelled as literacy and numeracy sessions. These providers had had to work on changing perceptions of Skills for Life and finding ways of 'covertly' addressing skills shortages.

These findings are supported by research from the National Audit Office (NAO, 2008) which found that adults were more likely to engage with maths when provision was labelled as being relevant to accomplishing a goal such as managing finances, being more organised or helping children (e.g., 'managing money better', 'organising your time' or 'maths in your home' and not directly related to maths (e.g., 'basic maths').

Providers in the CLT pilots (Evans et al., 2014) also found that re-branding of course titles and content was effective in increasing take up. For example, one provider in rural Cumbria ran an IT course entitled 'IT for the backward and bewildered' that taught relevant IT skills such as preparing invoices and ordering farm supplies. Another changed the title of their computer skills course from 'ICT' to 'coffee and computers' and found that this increased course sign up. Even using the word 'activity' instead of 'course' may be effective as it is perceived to be more approachable and engaging (Evans et al., 2014).

It is interesting to note that many of the CLT pilots were keen to avoid the use of 'English' and 'maths' in course titles but they found that other organisations and services (such as Social Services) would only refer clients to provision that included these words in their titles.

Marketing basic skills courses under the guise of ICT training has been shown to engage more learners and employers (Atkins et al., 2005). This is possibly because learners perceive ICT training to be more relevant, associated with less stigma and/or because ICT acts as an incentive that attracts learners (Brooks et al., 2004). This could be a good marketing ploy as there is evidence to suggest that people in need of basic skills training may present themselves as ICT learners as there is less stigma attached to being deficient in these skills (Kirk & Kirk, 2002).

6.5 Providing Incentives

Incentives have not been traditionally used in education until recent years but have been employed across students of all ages to encourage attendance, behaviour, performance, grades and enrolment. These incentives have mainly been financial in nature and evaluations of their efficacy have been mixed, possibly due to the large variety of ways incentive interventions can be designed in terms of behaviour rewarded and the magnitude of awards. Research from developing countries has shown that attendance is significantly increased when families are provided with a significant financial incentive, particularly among students of working age who may otherwise leave school to get a job (Schultz, 2001; Attansio et al., 2005). However, effects are small (typically a 3-10% increase compared to control students) and the effects on learning outcomes are less documented although there is evidence to suggest that incentivised students made better grade-to-grade progression and repeated fewer grades than non-incentivised students (Behrman et al., 2001).

Research from developed countries is less encouraging, for example, a series of RCTs conducted on around 27,000 students in 203 schools across 3 cities in the USA found no effect of a variety of incentive-based interventions on overall achievement, the specific behaviours incentivised, self-reported effort or intrinsic motivation (Fryer, 2011). The interventions differed in the behaviour that was rewarded (reading books, performance on assessments and grades on core courses), how often students were given incentives (3 times a year, 5 times a year and every 5 weeks), the ages of students (second, fourth, seventh and ninth graders) and the amount they received (average earnings of \$13.81 to \$695.61, maximum earnings of \$80 to \$1875 across trials). Fryer (2011) notes that one potential limitation of the study was that it was underpowered to detect effect sizes below 0.15 standard deviations but nonetheless this was a robustly designed and implemented study and the lack of effects seen are important findings. In the UK, an evaluation of the Education Maintenance Allowance programme which paid students from lower income families up to £40 a week to stay in education after GCSEs found that this incentive increased attendance by nearly 6% but had no effect on achievement compared to non-incentivised students (Middleton et al, 2005).

Most of the literature on applying incentives in education settings is concerned with secondary school children and university students and it should not be assumed that what does and does not work for them in terms of incentives will be the same for adult learners. In the USA, Ziegler and colleagues (2004) evaluated the effect of a “Completion Bonus” cash incentive scheme on progress in adult basic skills education by learners on welfare. This bonus was only available to welfare learners. They found that welfare learners on courses after the incentive scheme was introduced made significantly greater progress than similar welfare learners did before introduction and that they also made more progress than learners on the same courses who were not on welfare and therefore

not eligible for the incentive. The PPA project concluded that there was some evidence that incentives encourage regular attendance although this was not evaluated robustly and was based on small samples of learners.

The most robust evaluation of the use of financial incentives in adult education in the UK has been by Brookes et al. (2008b). They conducted an RCT on 152 learners in 28 adult literacy classes in 3 areas of the UK to see whether providing learners with cash incentives affected attendance and attainment. All learners were tested on their reading skills at the start and end of a 5-month period and were given a £10 voucher for completing each test. Incentivised learners were also given £5 vouchers for each class they attended up to a maximum of 10 classes during the 5-month period. Brookes et al. (2008b) found that the incentive had no effect on attainment and actually had an adverse effect on attendance with incentivised learners attending, on average, 1.5 fewer classes than non-incentivised learners. The authors relate their findings to others that have shown that rewarding activities that are inherently rewarding (such as learning) is actually demotivating and detrimental to performance (Lepper et al., 1973).

However, the above study was limited in that it had a small sample size and the incentive was relatively small. The incentives were also introduced a term into the literacy program when many learners may have settled into attendance patterns. As the authors themselves point out, around half of learners registered on adult literacy courses drop out within the first three months – this would have been a better time to test such an intervention. The learners received the vouchers they had earned in total at the end of the study and must have been informed that this would be the case at the start of the study, five months before. However, as we have a tendency to prefer smaller, immediate rewards over larger ones in the future (this is known as ‘hyperbolic discounting’ e.g., Laibson, 1997), the intervention may have been much more effective if learners had been given their £5 attendance voucher at the class when they attended. Indeed, Levitt et al. (2012) showed how non-immediate rewards (those promised a month later) had no significant effect on students’ school test performance whereas those that were given at the time of the test did.

Due to our aforementioned tendency to be loss averse it is also possible that incentives framed as losses may be more effective than incentives framed as gains. This was tested by Fryer et al. (2012) who asked teachers in Chicago to participate in a pay-for-performance program where they would receive cash bonuses for increases in student performance. One hundred and fifty teachers elected to participate and were split between ‘gain’ and ‘loss’ intervention conditions where they had the opportunity to earn the same bonus. Teachers were either given their bonus at the end of the school year (gain) or were given a sum of money (\$4,000 – half of the maximum they could earn in the scheme) and were told they would have to repay any difference in money between what they were entitled to at the end of the scheme and what they had been given (loss).

The results showed that student performance was increased significantly by teachers receiving incentives framed as losses but not by those receiving incentives framed as gains. Levitt et al. (2012) also find more robust effects of incentives framed as losses than those framed as gains.

Many of the incentive interventions applied in education are monetary based and little is known as to whether other incentives may be effective. Incentives that overcome barriers to learning such as free childcare or transport or those that promote engagement with others such as free tea and coffee or lunch may be effective in encouraging adults into learning and in supporting persistence. However, care needs to be taken that incentives like these are not successful in retaining learners who do not benefit from classes in terms of improving their skills.

In summary, although evidence of the efficacy of using incentives to increase attendance and performance is mixed, especially in adult education, it may be worthwhile to further investigate their use taking into account insights from behavioural science when designing interventions. More research is needed as to whether or not non-monetary incentives may be effective in adult education settings.

6.6 Providing Support and Appropriate Information, Advice and Guidance

Appropriate placement onto courses, information, advice, guidance and support, particularly during the first few weeks of the course, can encourage engagement and persistence (Martinez, 2001; Nash & Kallenbach, 2009; Vorhaus et al., 2011). It is important that adult learners receive as much information as possible about the course (e.g., purpose, what is expected of them in terms of time, assessment and self-study, goals, activities, logistics, etc.) and any funding opportunities available (e.g., for childcare or transport) and understand what benefits undertaking the course will bring to their everyday lives (Wonacott, 2001). Equally as important is the appropriate matching of learners to courses which requires a good understanding of the learner's needs and current skills, knowledge and ability highlighting the importance of good quality initial assessments (e.g., Harding et al., 2013). Provision of information, advice and guidance can also lead to greater learner satisfaction (Hillage et al., 2006).

Provision of support (both academic and pastoral) throughout the course and particularly during the early stages is strongly linked to persistence and also helps to sustain attendance (e.g., Taylor et al., 2005; Litster, 2007; Vorhaus et al., 2011). Teachers are often the main source of this support and institutions should acknowledge and allow for this in their workload (Litster, 2007).

6.7 Peer Support and Encouragement

We are heavily influenced by those around us such as our friends and family and tend to conform to the beliefs, attitudes and behaviours of the majority (e.g., Latané, 1996; Cialdini & Goldstein, 2004). Under uncertainty, for example, when trying to decide whether to engage with learning, we are likely to look to others to judge the best course of action and be responsive to guidance if we believe that what is recommended will result in better outcomes (Cialdini, 2007).

Research has suggested that peer support encourages both engagement with and persistence in learning. As mentioned above, learner feedback from the CLT evaluation (Evans et al., 2014) highlighted that learners felt more confident when they enrolled with someone they knew and so people may be encouraging onto courses by suggesting that they enrol with a friend. Persistence has been shown to be supported by the presence of a 'sponsor' – an individual or individuals in the learner's social network who provides support and encouragement (Porter et al. 2005). Sponsors may be family or friends or professionals such as social workers or volunteer tutors. Positive and sustained engagement of young adults in learning programmes has been linked to involvement from friends, family and significant others (McNeil & Dixon, 2005). Once in learning, support from other learners can also aid persistence highlighting the importance of fostering an inclusive and cohesive learning environment (Ward & Edwards, 2002; NIACE, 2006).

We are particularly influenced by others who are similar to ourselves in terms of background, age, gender or race (Cialdini, 2007; White et al., 2002). Encouragement into learning by similar peers (especially those who have undertaken learning) may therefore be particularly effective and a number of schemes have shown this to be true. For example, as mentioned earlier, Union Learning Representatives are very effective in encouraging engagement and persistence in workplace learning (Stuart et al., 2010). The CLT pilot evaluation reported that Community Learning Champions – local volunteers and tutors – were very successful in actively promoting learning opportunities to people in their community, encouraging people into learning and supporting them on their learning journey (Evans et al., 2014). Champions share similar backgrounds to the people that they try and encourage into learning and so are able to connect with these people and show them how learning can improve their lives. Effective use of successful learners in promoting, recruiting and supporting new learners has also been reported in evaluations of Skills for Life (NAO, 2004) and Train to Gain (OFSTED, 2008).

Although a lot of this evidence may be anecdotal and formal evaluations of the efficacy of such programs may be lacking, there is more robust evidence that demonstrates how similar peers can be effective in encouraging others to enrol in learning programmes. Much of this evidence comes from studies that have used college students to encourage and support high school students in the USA into college (e.g., Carrell & Sacerdote,

2013; Castleman et al., 2014). For example, Castleman and Page (2013) show how support from college students over the summer before entering college can increase the likelihood of college-intending high school students actually enrolling in college (about 10% have been found to change their minds about college over the summer period). The college students assessed readiness for the college transition and provided information, encouragement and support in making this transition. The intervention increased enrolment onto 4-year college programs by 4.5% compared to a non-intervention control. Effects were strongest for students with less-defined college plans and moderate GPAs.

6.8 Establishing Community and Inclusion

Research suggests that the nature and quality of the relationships between learners and both their teachers and their peers has a substantial impact on engagement within learning (e.g., Ladd et al., 2009; Wentzel, 2009). Sense of belonging is closely linked to perceptions of autonomy, self-efficacy and intrinsic motivation (e.g., Osterman, 2000), all of which have a negative impact on engagement and persistence when low. A learning environment which fosters feelings of community and inclusion is one in which there is a mutual respect between learner and teacher, there is a mutually accepted common culture within the class and learners feel safe, capable, accepted and connected to their teacher and their peers (Wlodkowski, 2008). Such an environment can be developed using strategies such as the following:

6.8.1 Not Allowing First Impressions to Shape Continuing Evaluations of Learners

When making judgements, we tend to be heavily influenced by the first piece of information that we receive about what we are judging and have a tendency to over-weigh the value of this information, using it to make subsequent judgements. This cognitive bias is known as 'anchoring' and, when applied to judgements about people, is known as the 'halo effect'. The halo effect occurs when people put undue weight on what they inferred about a person from their first encounters with them when making subsequent judgements about them. It may cause people to under-weigh further information about the person that they gain over time and even to only seek or attend to information that confirms their first impression of the person (known as 'confirmation bias').

In learning the halo effect and confirmation bias can have a significant impact on the relationships between a learner and both their teacher and their peers. For example, if teachers are heavily influenced by their first impressions of a learner and decide early on things like what 'type' of learner they are or how well they might do in the course then these beliefs and stereotypes may be carried on throughout the duration of the course and could greatly impact engagement, persistence and achievement. This could be very

harmful if the first impression a person gives is not representative of their actual character or ability which could well be the case when returning to learning. It is easy to imagine that learners may be apprehensive and reserved when they start a course in an unfamiliar surrounding with unfamiliar people. These effects may be reduced by making teachers and learners aware of these natural tendencies that we have and through asking them to consider the evidence for alternative viewpoints to their impressions of others.

6.8.2 Providing Introductions and Icebreakers

Time should be allowed at the start of the course for the teacher to introduce themselves and the course and for students to introduce themselves and their expectations for the course so that everyone can start to get to know each other. It also shows learners that the teacher is interested in them as people and helps to reduce the tension often present at the beginning of courses (Wlodkowski, 2008).

Teachers could say a bit about themselves and why they are conducting the course and let learners know that help is on hand when it is needed and how and when it can be obtained (e.g., letting them know when the teacher is available outside of class).

Teachers could also share something about themselves with the learners to show that they identify with them such as sharing a credible intense experience that they have had, perhaps in work or when they have been faced with learning something new. Sharing breaks down barriers and stereotypes and establishes a connection between learners and teachers. Teachers can also share involvement they have had with the subject matter such as research, discoveries and problems to show their humanity and enthusiasm for the subject. This enables learners to see what they might be able to do with the subject after they have learned it (Wlodkowski, 2008).

Inclusion can also be developed through using non-intrusive icebreakers that help learners relax and laugh together. Wlodkowski (2008) recommends two such 'multidimensional sharing' activities. In the first, learners each introduce themselves and something that they have either read, seen or heard (such as a book, film or song) that has had a positive influence on them that they would recommend to others and the reasons for recommendation. In the second, learners split themselves into groups according to the decade that they finished or would have finished school. Each group compiles a list of three to five items that characterise experiences of the time such as clothing, music, historical events or social activities which they then report to the whole group.

6.8.3 Using Collaborative and Cooperative Learning

Learning with others enhances emotional and motivational involvement in learning and helps to develop relationships between learners leading to feelings of community and

inclusion (Wlodkowski, 2008). Collaborative learning has also been found to be particularly motivating for non-traditional students including adult learners and learners from Ethnic Minority backgrounds (Barkley et al., 2005).

Cooperative learning is the most researched form of collaborative learning and comprises five fundamental components (Johnson & Johnson, 2006):

1. **Positive interdependence:** personal success is dependent on each of the group members succeeding and/or successful co-ordination between group members. For example, in the 'jigsaw' procedure, a task is set and each member of the group is given a specific, individual sub-task to complete. The main task can only be completed when all of the group members understand each other's sub-tasks. An example of this may be a reading task where each group member is given one part of the story to read and understand. Each group member must successfully share their part of the story in order for all group members to understand the full story.
2. **Individual accountability:** each group member is equally responsible for contributing their share to the group's success (i.e. nobody can contribute little and reap rewards) and this is monitored through individual assessment and sharing the results of each learner's assessment with the group.
3. **Promotive interaction:** group members do what they can to encourage, support and assist each other in completing the group task.
4. **Social skills:** are required to help group members communicate well with each other in order to reach goals, overcome problems and to get to know, trust and support each other.
5. **Group processing:** is a reflective process whereby learners look back on their group experience to identify helpful and unhelpful actions in order to decide what actions to continue or change.

6.9 Developing Positive Attitudes towards Learning

As mentioned previously, many basic skills learners will have negative learner identities based on their previous childhood learning experiences and the beliefs about learning that others around them hold. They may also have low core self-evaluations and have little confidence in themselves and their abilities and may have fixed mindsets, possibly believing that they are unable to learn and develop their skills.

6.9.1 Developing Positive Learner Identities

Positive learner identities can be developed in a number of ways including positively confronting negative attitudes and beliefs, making adult learning experiences completely

different to school ones, making learning relevant and by encouraging students to connect with other learners who have positive learner identities.

6.9.1.1 Positively confronting negative attitudes and beliefs

Negative attitudes may be supported by erroneous beliefs such as 'I can't do maths', 'I'll look foolish if I make a mistake' or 'basic skills training can't help me in my life' and these assumptions can cause fear and resistance to learning (Ellis, 1989). Wlodkowski (2008) proposes the following guidelines to tackle such assumptions:

1. Tactfully find out what thoughts and feelings may be sustaining negative attitudes by asking the learner directly about what they are experiencing,
2. If the learner has a self-defeating belief, point out how the belief can naturally lead to negative feelings (e.g., 'if you believe you can't do maths then you will probably be anxious about the maths element of the course'),
3. Suggest other beliefs that might be more helpful (e.g., 'with a bit of time and effort I can develop my maths skills and do well in the maths element of the course'),
4. Encourage the learner to develop positive beliefs based on their current experiences and to try and replace negative beliefs with these positive ones as and when they are brought to mind.

It may also be helpful to directly ask the learner what would need to happen in order for them to believe they could do well or change their negative attitudes (Wlodkowski, 2008).

6.9.1.2 Making adult learning different from childhood learning

There are many ways in which adult learning can differ from childhood learning and providing a completely different learning experience can help break negative associations with learning by redefining what learning is. For example, courses could be held in informal community locations instead of traditional institutions (as previously discussed), learners could be given more control over what, when and how they learn (this can also build confidence and self-efficacy discussed below), provision could be tailored to the individual's needs, interests and motivations making it more relevant and a variety of materials could be used to enhance the learning experience.

As the principles of andragogy suggest, in order for adults to hold positive attitudes towards learning they must see the relevance of it and how it will benefit their own lives. For learning to be relevant it should be connected to who the adults are, what they care about and how they perceive and know (Wlodkowski, 2008). Learning can be made relevant in a number of ways. For example, concepts could be explained and engaged with in a number of different ways. A framework that could be used to do this is based on the theory of multiple intelligences (Gardner, 1993) which proposes that intelligence is not a single ability but comprises eight different 'modalities' or abilities (such as being musical or logical) of which people have differing strengths in each. As learners are likely

to have diverse profiles of intelligence (i.e., they will all differ in their strengths of these modalities), explaining concepts in ways which map on to their strongest intelligences will make them more relevant and easier to understand.

According to Gardner (1993; see also Viens & Kallenback, 2004) there are five 'entry points' or ways of introducing a concept that roughly map on to the multiple intelligences:

1. Narrational: presenting a narrative account or story about the concept.
2. Logical-quantitative: approaching the concept with numerical considerations or deductive and inductive reasoning processes.
3. Foundational: explaining the concept in terms of its philosophical and terminological foundations.
4. Aesthetic: approaching the concept from an artistic view using pictures, music or video for example.
5. Experiential: using a hands-on approach to explain the concept.

A selection of these could be used in teaching to explain concepts and could also be used as ways in which students could demonstrate their learning.

A topic can also be made relevant by introducing it using the K-W-L strategy (Ogle, 1986) where learners are first asked to share what they *know* about the topic, then asked *what* they want to learn and then evaluate what they have *learned*. Learners have the opportunity to draw from their life experiences in the first stage and have the opportunity to express what they personally want to learn in the second.

As previously discussed in the section on blended learning, the use of technology as a learning aid can provide a very different learning experience from traditional methods the adult learner is likely to have experienced at school. Use of other materials such as magazines, textbooks with lots of pictorial examples, media and films can also enhance the learning experience.

6.9.1.3 Positive influence of peers

As discussed in the section on peer support and encouragement we are heavily influenced by those around us and this influence is likely to have contributed to the formation and sustainment of negative learner identities. Therefore, engagement with people who have positive learner identities may lead to belief and attitude change. This could be in the form of allocating learners a sponsor, providing a mentoring programme, through facilitating discussions with people like Community Learning Champions or Union Learning Representatives or through socialising with other learners on the course.

6.9.2 Developing High Core Self-Evaluations

As previously mentioned, low self-esteem, low internal locus of control and, in particular, low self-efficacy can all foster negative attitudes towards learning and can significantly impact engagement and persistence with learning. These personality dimensions can be developed through allowing learners control over their learning, helping them to attribute success internally, providing support, praise and encouragement and through using goal setting methods, learner plans and/or contracts (these are discussed more fully in the sections on goal setting and commitments).

6.9.2.1 Giving learners control over their learning

Giving learners the ability to control how, what, when and where they learn will make them feel as if they are responsible for their learning and any subsequent achievement. This can be accomplished through use of the following strategies (Wlodkowski, 2008):

- Using learner plans and setting goals (see goal setting section below),
- Providing provision that is flexible enough to allow the learner to choose how, what, when and where they learn, i.e., that is not solely class-room based and that offers choice in topics, assignments and assessment criteria,
- Asking the learner to assess and record their progress whilst learning,
- Helping the learner to identify their strengths,
- Asking the learner to identify barriers to learning, progression and achievement,
- Asking the learner to commit to a learning task (see commitments section below),
- Giving prompt and effective feedback (see feedback section below).

Giving the learner the majority of the responsibility for learning will also appease their desire to be autonomous.

6.9.2.2 Helping learners to attribute success to internal factors

Learners who believe that their success is due to external causes such as luck or the ease of the task may easily determine that they are unable to learn when faced with a run of poor performance or a difficult task. Showing learners how success is due to their capability, effort and knowledge, especially in subjects such as maths which are typically believed to be ability driven (i.e., people believe they are either able to do it or not), can help learners to develop an internal locus of control. This can be aided by:

- Giving learners tasks that are optimally challenging, i.e., with the right amount of difficulty to advance learning but not too difficult that they are beyond the ability of the learner and not too easy that they require no effort or knowledge to complete (what developmental psychologist Lev Vygotsky referred to as within the 'zone of proximal development' e.g., Vygotsky, 1978),
- Teachers emphasising that knowledge, patience and persistence will be required to complete the task,
- Giving feedback that praises the effort the learner went to in order to complete the task (see more about this in the growth mindsets section below).

In showing learners that success can be achieved through hard work and persistence you are also showing them how failure can be avoided.

6.9.2.3 Providing support, praise and encouragement

Adult learners highly value tutor praise and recognition of the effort that they have devoted to gaining achievement, stating that it motivates them and helps to build confidence and self-esteem (Ward & Edwards, 2002). Confidence and self-esteem are also strengthened through receipt of support from both the tutor and others on the course (Vorhaus et al., 2011).

Self-efficacy can be acquired through social persuasion – being told by someone we trust that we are able to accomplish a task (Bandura, 1997). Therefore encouraging learners that they can, with reasonable effort, accomplish a task may help them to believe that they can. Encouragement involves the teacher showing the learner that they are respected no matter what is learned, that they trust and believe in the learner's effort to learn and that they have the ability to learn (Wlodkowski, 2008). This can be accomplished in the following ways (Wlodkowski, 2008):

- Telling learners confidently that they can complete the task but without implying that this is because task is easy,
- Acknowledging and rewarding effort,
- Minimising opportunities for mistakes or failure when the learner is struggling,
- Helping learners to see mistakes as opportunities for learning,
- Showing belief in the learner's ability to achieve,
- Helping the learner at the beginning of difficult tasks just enough that they find the right direction to continue and confidence to proceed,
- Acknowledging the effort put into the whole learning process as it is occurring and not just acknowledging the end result.

6.9.3 Developing Growth Mindsets

As mentioned previously, growth mindsets are associated with greater academic persistence and achievement (e.g., Blackwell et al., 2007). Growth mindsets can be shaped both indirectly through teachers modelling consistent behaviour and awarding appropriate praise and directly by teaching people about the plasticity of the brain and what happens in the brain during learning.

Praise given by teachers (and in the case of child learning, parents) can be hugely influential both in developing mindsets and on persistence with and enjoyment of the task. Praise that focuses on the person (e.g., “well done, you are so clever”) encourages fixed mindsets whereas praise focussing on the process (e.g., “well done, you worked really hard on this”) encourages growth mindsets (e.g., Mueller & Dweck, 1998). It is important to frequently reinforce positive messages to students such as that their performance will improve with effort and that they can succeed in learning. In doing so a classroom norm that all students can be successful can be established (Snipes et al, 2012).

Research conducted in school settings has shown how interventions that develop growth mindsets directly can have a powerful and long-lasting impact on attitude change, persistence and achievement even after only a few hours of training (for a review see Yeager & Walton, 2011). These interventions can be delivered in a number of different ways such as through workshops, ‘Brainology’ interactive software (see <http://www.mindsetworks.com/>) and mentoring programs. The interventions are based on teaching children about the brain and how it grows like a muscle with effort and practice, applying strategies to foster growth mindsets, activities to practise what they have learned and reflection on learning. Much of this research has been conducted on school children but Yeager et al. (2013) propose that adult education is also a ripe area for applying growth mindset interventions.

Other ways of promoting growth mindsets include giving a ‘not yet’ grade instead of a ‘fail’ and generally framing responses to wrong answers in terms of an opportunity for learning rather than a lack of ability (Spencer et al., 2014). Growth mindsets can also be encouraged by giving learners class credit for exhibiting a growth mindset and by assessing teachers on their own exhibition and modelling of growth mindsets (Spencer et al., 2014). It is also important that teachers have growth mindsets as those who have fixed mindsets may believe that some learners are more intelligent than others and may concentrate their time and energy on these learners who they believe to be more able (Dweck, 2006).

Other interventions that promote growth mindsets are centred around changing attributions of academic challenges to external rather than internal causes. It is natural for a learner to be faced with challenges (such as increasing difficulty and the need to

apply different problem-solving strategies) on the learning journey and it is important that they are not so overwhelmed by them that they give up. This can happen when learners blame themselves and their lack of intelligence or ability for not being able to overcome challenges which can rapidly turn into a negative cycle of self-blame and doubt that can undermine persistence. However, interventions that teach learners to attribute challenge to external factors that are “bumps in the road” rather than internal ones such as personal failure and lack of ability have been shown to be successful in developing resilience and persistence (e.g., Wilson & Linville, 1985; Cohen et al., 1999; Walton & Cohen, 2007).

These interventions have typically been employed on college students and in a variety of ways. For example, they have been used to tackle the challenges faced by students transitioning from school to college by explaining to students that challenges such as decreased academic performance are normal and are faced by most students in their first year of college but tend to decrease in the second year. This has been aided by showing students academic transcripts of other students showing how grades improve in the second year and videos of other students explaining the challenges they faced when they started college. In one study students receiving this intervention showed a significant increase in academic performance and were 80% less likely to drop out of college than non-intervention participants (Wilson & Linville, 1985)

Growth mindset interventions have been applied on their own (as in the examples above) and have also been integrated into subject-specific provision. Integrated programs typically teach students about the malleability of the brain and foster learning strategies and give students the opportunity to use their new attitudes, skills and knowledge in a subject-specific context. For example, the Academic Youth Development program at the University of Texas at Austin simultaneously teaches students subject-specific knowledge (e.g., science, technology, engineering and math) and psychological strategies for developing a positive mindset, spending equal time on each component (Snipes et al., 2012).

6.10 Setting Goals

According to goal-setting theory (e.g., Locke & Latham, 1990), explicitly setting goals can significantly improve task performance. Establishment of clear, well-defined goals is associated with greater persistence, enthusiasm for the task and self-regulation in terms of diverting attention and energy away from goal-irrelevant activities and towards goal-relevant ones (Locke & Latham, 2002; Locke et al., 1981; Smith et al., 1990).

Progressing towards and attaining goals is associated with increased positive affect, well-being, self-efficacy and expectations of success (Emmons & Diener, 1986; Brunstein, 1993; Latham & Seijts, 1999; Karakowsky & Mann, 2008).

Social-cognitive models of academic achievement propose that increases in self-efficacy resulting from smaller goal attainment (e.g., completing an assignment) strengthen commitment to the larger goal (e.g., completing the course) activating the cognitive and motivational resources needed to facilitate achievement (e.g., Zimmerman et al., 1992). Goal-setting interventions applied in an academic context have shown positive effects on persistence and achievement. For example, in a randomised, controlled study on 85 poorly performing university undergraduates, Morisano et al. (2010) showed that students who participated in a goal-setting intervention had significantly higher GPAs and course loads than students who participated in a control task, 16 weeks after the intervention. There were no differences in average GPA and course load between the two groups before participation in the study. Course load (course credits) was used as a measure of retention – none of the students receiving the intervention dropped below full-time course load whereas 20% of students in the control group did.

In the context of adult basic skills learning, much research has suggested that persistence is supported when learners establish and set goals along the learning journey, outline the steps needed to achieve them and when achievement of the goals is recognised leading to revision and refreshment of goals (e.g., Comings et al., 1999; Litster, 2007; Nash & Kallenbach, 2009). Goals should be worthy of pursuit; they should be aligned with the learner's interests and be optimally challenging – they should require some perseverance to fulfil and not be too easy to achieve but at the same time not so difficult that they seem impossible (Shechtman et al., 2013). Goals should be framed in a way that maximises their attainment, for example, goals should;

- Promote positive outcomes rather than prevent negative ones (Higgins, 1997),
- Be centred around acquiring competence rather than showing possession of competence (Dweck, 1999),
- Anticipate intrinsic rather than extrinsic rewards (Ryan & Deci, 2001),
- Be specific rather than vague (Locke & Latham, 1990), and
- Be proximal rather than distal in time frame (Bandura & Schunk, 1981).

Learners should be encouraged to measure and record their progress towards these goals so that they can see that they are moving forward and teachers should talk to learners regularly about their progress (NRDC, 2008b). This may be aided by the use of individual learning plans.

6.10.1 Mental Contrasting and Implementation Intentions

Goal achievement is reliant on effective goal setting and implementation (Lewin et al., 1944) and requires adequate commitment to goals and effective planning and enactment of goal-oriented behaviours (Oettingen, 1999; Gollwitzer, 1999). In this section we

discuss complementary self-regulatory strategies to strengthen goal commitment (mental contrasting) and facilitate effective planning (implementation intentions).

Goal commitment is influenced by the desirability (beliefs about the pleasantness of the consequences of goal attainment) and feasibility (expectations about the occurrence of future events and activities such as their likelihood and the ability to realise them) of goals (e.g., Locke & Latham, 1990; Gollwitzer, 1999). The strategy of 'mental contrasting' strengthens goal commitment by making a person scrutinise the feasibility of a goal, allowing them to determine which goals are reachable and which are not (Oettingen & Gollwitzer, 2010). The strategy is based on the model of fantasy realisation (Oettingen, 2000; Oettingen et al., 2001) which describes three routes to goal commitment: Indulging, dwelling and mental contrasting. People first 'indulge' by fantasising about attaining a positive, desired future (e.g., getting a job) and then 'dwell' on obstacles in the present reality that may stand in the way of this desired future (e.g., lack of necessary skills). Crucially, they then contrast the two allowing for associations to be made between them and emphasising the necessity for action.

Once a person is committed to a goal they may encounter barriers to achieving it which they will need to overcome. Making 'implementation intentions' (i.e., 'if-then' plans that detail when, where and how the person will take action when a barrier arises) alongside goals can help in doing so (Gollwitzer, 1999). Goal intentions take the form of 'I intend to achieve x', where x is the desired outcome or behaviour, and implementation intentions take the form of 'and if situation y occurs, then I will perform goal-directed behaviour z'. For example, a person who has committed to the goal of signing up for an adult learning class may furnish this goal with an implementation intention such as 'if my car is playing up that day I will take the number 6 bus from across the road at 5.45pm'. If the person then faces that situation they can resort to their plan and this has been shown to both help people get started on pursuing their goals and to keep them on track (Oettingen & Gollwitzer, 2010).

Much research has shown the efficacy of these two strategies when used in isolation (for a review see Oettingen & Gollwitzer, 2010) and more recently they have been used together to facilitate goal achievement. The combined mental contrasting/implementation intentions (MCII) intervention involves contrasting a desired future with obstacles to attaining it and forming implementation intentions to overcome the obstacles. This intervention has been applied in an educational context and has been successful in both increasing self-discipline and performance (Duckworth et al., 2011; 2013) although only on a small scale and with school children.

In their first study, Duckworth et al. (2011) gave 66 high school children workbooks to practice questions for an important test (the PSAT) and either a written MCII intervention or a control writing exercise. All students were asked to write down two positive outcomes that might occur if they finish the practice tests and two obstacles that might

prevent them from doing so. Students randomly allocated to the MCII intervention were then asked to imagine the outcomes vividly and to write about them in more detail, re-write the two obstacles and propose solutions to them in the form of if-then plans and write an if-then plan specifying when and where they would complete the workbook. Students in the control condition wrote about an influential event or person in their lives. Students receiving the MCII intervention completed over 60% more practice questions (average of 140 questions) than those in the control condition (average of 84 questions).

In a second study (Duckworth et al., 2013), 77 economically disadvantaged middle school children were randomly assigned to receive either MCII or positive thinking exercises delivered in three one hour sessions over three weeks. All children were instructed to think about and write down an important wish or goal related to schoolwork that could be achieved within weeks or months and the best thing that could happen from achieving the goal. Children in the MCII condition were then asked to write down something that could prevent them from achieving the goal, when and where they would next encounter this and how they could overcome it. They then filled out an if-then plan to reflect this. Children in the positive thinking condition wrote down another good outcome from fulfilling their goal, when and where the positive outcome may occur and how it would make them feel. They were also asked to fill out an if-then plan but this reflected how they would feel if the goal was realised. In the term when the intervention was delivered, children who applied MCII to academic wishes significantly improved report card grades, attendance and conduct compared to those who just thought positively about them. However, this effect did not last longer than one term which the authors attribute to being because this coincided with the end of the school year when students could do little to adjust their end of year outcomes such as GPA. More research is needed to determine how effective MCII interventions delivered in education contexts are but they may well be useful in adult learning to encourage engagement and persistence and to overcome barriers to learning.

6.11 Commitments

We are more likely to undertake a specific action if we formally commit to doing it because we have a strong desire to be, and to appear to be, consistent (Cialdini, 2007). Commitment devices have been shown to be effective in both encouraging positive behaviour such as savings (Ashraf et al., 2006) and voting (Greenwald et al., 1987) and discouraging negative behaviour such as smoking (Giné et al., 2010) and not attending GP appointments (Martin et al., 2012). Research suggests that the commitment to undertaking the action can be strengthened through writing it down, telling other people about it and when the costs of failure (such as reputational damage or monetary losses) are high (Kahneman & Tversky, 1979; Cialdini, 2007; Martin et al., 2012).

In adult learning, commitment devices such as learner contracts and individualised learning plans are effective in encouraging both commitment and motivation and promoting self-directed and individualised learning (Knowles, 1986). They are also considered to be effective in improving learning performance and adult's expectancy of success (Berger et al., 2004), although no formal review of their efficacy could be found in literature searches conducted for this review. Learning contracts are typically constructed jointly between learner and teacher and specify the learning objectives, how and when they will be accomplished, what evidence will be presented to demonstrate accomplishment and how this will be judged. The contracts can then be signed by both parties, securing commitment to learning. The contracts could also be used to encourage behaviours that support persistence such as regular class attendance and engagement in learning outside of the classroom.

6.12 Providing Regular Feedback

Regular monitoring, feedback and recognition of both small and large gains in learner progress and showing the learner how these gains can benefit other areas of their lives also encourages persistence (Barton et al., 2004; Vorhaus et al., 2011). Hattie (2008) concludes that feedback is one of the most powerful influences on achievement also. This highlights the importance of recognising a wide range of learner achievements from so called 'soft' outcomes such as increases in confidence, self-esteem, trust and motivation to 'hard' outcomes such as increases in test scores, ability and achievement and not just focussing on the latter as a lot of assessment frameworks do (Eldred et al., 2006; Hamilton et al., 2007). Recognition of smaller gains is particularly important for vulnerable and harder to reach learners and creates a sense of continuing achievement which can motivate persistence (NRDC, 2008b).

Wlodkowski (2008) outlines the following characteristics of effective feedback:

1. It provides evidence of the learner's effect relative to the learner's intent: feedback that is based on agreed standards, criteria and models (Wiggins, 1998).
2. It is informational rather than controlling: as informational feedback (e.g., telling learners about their effectiveness) enhances intrinsic motivation whereas controlling feedback (e.g., telling learners what they should or shouldn't do) undermines it (Deci & Ryan, 1991).
3. It is specific and constructive: people prefer specific rather than general information on their performance with realistic suggestions of how to improve (Brophy, 2004).
4. It is prompt: this can be aided by peer review and technology – feedback can be immediate in computer-assisted learning.
5. It is frequent: especially when practice is vital to the learning goal.

6. It is positive: emphasising progress, improvement and correct responses rather than mistakes and deficiencies.
7. It is related to impact criteria: the learner's reasons and intentions behind their work.
8. It is personal and differential for skill and procedural learning: it focuses on increments of improvement between times that the learning activity is performed.

In addition, as explained in the section on developing growth mindsets, feedback should also focus on the process of completing a task and not on the person (e.g., Mueller & Dweck, 1998).

6.13 Use of Technology

Technology can support engagement and persistence with adult learning through its ability to facilitate many of the things that have been highlighted in this review as being influential on engagement and persistence such as autonomy, personalisation, relevance, goal setting, collaborative learning, provision of support and effective feedback. Outlined below are some of the ways in which this can be achieved, for an in-depth review of the use of technology in adult literacy and language education see Warschauer and Liaw (2010).

6.13.1 Tools to Enhance Personalised Learning

Digital education solutions that help to provide a student-centred learning experience can be used to support persistence. For example, Agilix Buzz (<http://agilix.com/products/buzz/>) is a learning platform that allows students autonomy over their learning path (they can choose the content of their curriculum), to create a personalised learning plan, progression at their own pace, to receive and provide peer support and immediate feedback about their productivity and progress – all elements that support persistence. Teachers are provided with real-time feedback about progress and also how learners are feeling about their progress and learning experience (students self-report daily on their comprehension, effort and interests) so that they can provide support, encouragement and praise when needed. The platform is currently being used to help turn around low-achieving schools in Michigan (see <http://agilix.com/case-study-buzz-eaa/> for more details).

As well as tools like Buzz that provide a complete learning experience, there are also technologies that target specific learning strategies. For example, Self Authoring (<http://www.selfauthoring.com>) is a writing program that Morisano et al. (2010) used for their goal-setting intervention discussed above. The eight-step program asked students to elaborate on their desired futures, goals related to those futures and their plans and commitment to achieving them.

6.13.2 Intelligent Tutoring Systems

Intelligent tutors such as Cognitive Tutor (<http://www.carnegielearning.com/>) provide online learning environments that are adaptable to the individual, offering a tailored learning experience and immediate feedback to both the learner and teacher. They analyse learners' responses to questions and adapt tutoring and activities to the learners' needs and ability. This means that they can provide students with questions or activities that are optimally challenging, which can encourage persistence. Some tutors are even able to monitor and react to learners' emotional states such as frustration and boredom by using inputs from physiological indicators and facial expressions (e.g., Wayang Outpost <http://wayangoutpost.com/>). These learning environments can also be tailored to include job-related content for work place learning.

6.13.3 Mobile Learning

Mobile learning (also known as m-learning) is defined as the delivery of learning activities to learners anytime and anywhere through the use of mobile devices such as mobile phones, smartphones, personal digital assistants (PDAs), tables and portable multimedia players (Wang et al., 2009). Mobile technologies support a wide range of learning activities such as the following:

- Access to online learning activities
- Creating, sharing and accessing learning materials
- Reading
- Listening to podcasts
- Watching videos
- Taking pictures or videos to record lectures, overhead slides or book content
- Accessing information and performing searches
- Collaborative learning through communication with other learners
- Gaining feedback and support from teachers and other learners
- Making notes
- Taking assessments and quizzes
- Using calculators to help with tasks
- Learning-related applications and games
- Location-based learning through use of quick response (QR) codes and geo-tagging.

Mobile learning has the potential to support engagement and persistence with adult learning in a number of ways. First, it promotes access and social inclusion as the use of mobile devices transcends age, gender, ethnicity, social status and economic level. Ofcom (2013) estimate that 94% of adults in Britain either own or use a mobile phone with 51% claiming to own a smartphone. Second, mobile technologies can help to provide a person-centred learning experience through their ability to support delivery of content in ways that the learner prefers and learns best through (e.g., through text, pictures, video, audio or interactive games) and their ability to offer a wide range of learning activities giving the learner autonomy over their learning. They can also be used to deliver personalised content that is relevant to the learners' goals, motivations and needs. Third, mobile technologies facilitate flexible learning as learners are able to use them at any time in any place and work through activities at their own place. They can also be used in practice outside the classroom and at times when the learner is unable to attend formal classes. Fourth, they provide a completely different learning experience from the childhood learning that the adult is likely to have had which may help them to overcome negative associations with learning. Fifth, they can provide immediate feedback on learning activities (e.g., when using learning applications and games) which can help motivate learners through positive reinforcement. Finally, mobile technologies can be used outside the classroom to access support from other learners and teachers and to facilitate collaborative learning which may help to facilitate feelings of community and inclusion.

A review of the use of mobile learning in lifelong learning suggested that mobile learning was being used in ways such as those outlined above to support lifelong learning but that the potential remains under-exploited (Arrigo et al., 2013). For example, Arrigo et al. (2013) report that mobile technologies are mostly being used to access, create and download content and that only a few projects have exploited the social aspects of using these technologies; allowing learners to interact with teachers and peers whilst using the device. Where this has been utilised they report that it has had a positive impact on user motivation and the creation/reinforcement of social relationships. However, this evidence should be taken as anecdotal only as the authors do not report on whether or how this was actually measured and base their findings on interviews conducted with individuals working on mobile learning projects. Other outcomes relating to the use of mobile learning noted in this review include opening up access to knowledge and resources, establishing links between different places of learning, supporting learners who may be excluded or at risk of dropping out, facilitating location-based and outdoor learning and enhancing creativity and collaboration. Again, this evidence may be largely anecdotal.

Although mobile learning has the potential to support engagement and persistence with adult learning, little evidence could be found as to whether this had been robustly tested, especially in the area of adult education, let alone in adult basic skills education. Much of the research found was concerned with perceptions of mobile learning (e.g., Demirbilek,

2010) or evaluations of specific interventions delivered in specific contexts (e.g., provision of lecture podcasts to undergraduate paramedic students; Williams & Bearman, 2008). In many cases where interventions had been tested there was a lack of robust methods (such as the use of a control group or controlling for other variables that may explain effects seen), adequate sample sizes and reliable and valid outcome measures. However, in general these studies showed positive effects of mobile learning such as increases in achievement, motivation, engagement, collaborative learning, interest in learning, autonomy, better access to materials, changes from passive to active learners and more productive study time (for a review see Pollara, 2011), although these findings should be interpreted with caution. It is also important to note that mobile technologies are evolving rapidly and so by the time an evaluation is started, completed and published technology may have advanced so much that the study may no longer be relevant.

Despite their potential to be an effective aid to learning, some studies have highlighted a number of issues with using mobile technologies, both in general and relating to their use with adult learners. Arrigo et al. (2013) conclude that the effectiveness of mobile learning may be impacted upon by educational staff who are often lacking in technological skills, hardware (keeping up to date with devices), internet connection, costs, accessibility and copyright issues.

It is possible that adult learners may have less experience of using technologies and may need more support when using them. This could be provided by their peers which could promote interaction between learners. There was evidence of this occurring in projects that were part of the larger European “My Mobile” project which aimed to develop guidelines for the use of mobile learning in adult education. Learners had varying levels of mobile expertise and those who were more technologically able shared their experience and skills with their peers (Friedrich et al., 2011). It is also possible that there will be high variability in the type of mobile phone owned by adult learners and their functionality. Therefore adult learners may be limited in what they can do using their mobile by both their skills and what is supported by their device. In the My Mobile workshops teachers found that for the most part, learners, especially disadvantaged adults, didn't have the latest technology and primarily used their phone for making calls and text messaging and so were unfamiliar with applications and creating multimedia. Many had mobiles that did not have cameras or internet connectivity (Friedrich et al., 2011).

6.13.4 Digital Games Based Learning

Juul (2003) defines a game as “a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable”. Both entertainment

and educational (often called 'serious') digital games have been widely used for training and teaching purposes as game play is seen to be engaging and intrinsically motivating (Sharples et al., 2013). This is because games can include many elements that foster intrinsic motivation and, in turn, encourage engagement and persistence such as optimally challenging tasks, clear goals, clear and immediate feedback, social support and interaction, collaboration, active learning, adaptivity/individualisation, control, relevance/interesting, incentives, engaging stimuli and the ability to focus concentration on the task (Bober, 2010). Instead of using actual games, some researchers have applied aspects of video games such as trophies, scoring and timed challenges to non-gaming educative concepts and this is commonly referred to as 'gamification'. Gamification is almost always applied using technology (e.g., through desktop, web or smartphone applications) and so it can be defined as "incorporating game elements into a non-gaming software application to increase user experience and engagement" (Domínguez et al., 2013).

Although games based learning may seem a promising aid to traditional learning on the surface, evidence of whether digital games do increase motivation to learn and, more importantly, whether their use results in improved learning outcomes, is mixed (e.g., Connolly et al., 2012; Schmitz et al., 2012; Vandercruysse et al., 2012). In their review of 43 articles on the effects of mobile games based learning, Schmitz et al. (2012) conclude that although there is evidence that mobile learning games can help to increase the motivation to engage in learning activities there is little evidence of cognitive outcomes such as gains in knowledge and understanding. However, they note that many of the studies do not explicitly measure such outcomes. Vandercruysse et al. (2012) reviewed 22 articles on the efficacy of educational games and concluded that although games based learning lead to increased engagement, positive effects on motivation are often context dependent and could be attributed to other factors (e.g., the cooperative goal structure, the novelty of the technology, how motivation is defined, etc.) rather than to games per se. However, they did find that the majority of studies reported that learners who played educational games scored significantly higher on post-tests of their knowledge than learners who didn't play games. In a meta-analysis incorporating 129 articles on the use of entertainment and educational games in learning, Connolly et al. (2012) concluded that the evidence of the effect of games based learning on increasing motivation, knowledge acquisition and content understanding was very mixed and that the evidence that playing games leads to more effective learning was particularly weak.

These reviews all come to similar conclusions as to why their findings are somewhat inconclusive:

1. High variability in the quality of studies: Schmitz et al. (2012) report that many studies apply qualitative measurements to evaluate effects and only a few use pre- and post-tests and control groups. Connolly et al. (2012) report that the majority of studies in their meta-analysis used quasi-experimental designs (51%)

and surveys (33%). RCTs (10%) and quantitative designs (6%) were not common. Vandercruysse et al. (2012) report that many studies do not take into account potential moderating, mediating or confounding variables such as ability, age or time spent playing games.

2. High variability in the elements or groups of elements used in the games: as mentioned above, there are many different elements that could be included in games to make them more effective and motivating and it is difficult to ascertain which elements or groups of elements may be the most effective especially when games are not explained clearly in studies (Schmitz et al., 2012).
3. Variability in the domains where the games are applied: games in the reviews have been applied in many different areas (e.g., business, health, science, maths, history, language, etc.) and only in one area – replications of studies across different subjects could not be found (Connolly et al., 2012). Therefore it is difficult to know whether results can be generalised from one domain to another or whether something that didn't work in one domain would have worked in another.
4. Variability in the game genre and how they were played: Games were all of different genres (e.g., adventure, action, fighting, puzzle, sport, strategy, role-playing) and were played over different platforms (e.g., mobile games, PC games, online games, video games) using various technologies (mobile phones, tablets, PDAs, computers, televisions) which may have provided very different learning experiences and affect the generalizability of findings.
5. Variability in the measurement of motivation and other outcomes (Vandercruysse et al., 2012).
6. Long term effects were generally not measured so it is difficult to know whether any effects seen were lasting (Vandercruysse et al., 2012).

It is not surprising then that such inconclusive results have been found given the variability in interventions and quality of the research. It may therefore be useful to explore specific interventions that have been used and evaluated in the contexts most relevant to this review. There appears to be considerably more studies investigating the use of digital games to improve literacy and numeracy in children and young adults than there is adult learners. Of the higher quality studies, evidence of the efficacy of using games to improve performance is still mixed. Ke and Grabowki (2007) found that schoolchildren who played computer games performed significantly better on maths tests and had more positive attitudes to maths learning than those who learned using traditional paper and pencil drills. However, this was not replicated in a second study (Ke, 2008) although playing games did significantly increase learning motivation. Miller and Robertson (2010) found that primary school children playing a 'brain training' game for 20 minutes a day over a period of ten weeks showed significant gains in accuracy and speed of maths calculations and self-esteem compared to a non-game playing control group. Din and Calao (2001) found that kindergarten pupils who played instructional video games for half an hour a day over the course of a semester made significantly greater gains in spelling and reading but not maths compared to pupils who did not play the game. Finally, Yip and Kwan (2006) showed how undergraduate students receiving online and games-based vocabulary learning over 9 weeks performed significantly better

on post-tests than those who learnt the same vocabulary through traditional activity-based lessons.

In the context of adult learning, many studies report games and applications that have been created for adult basic skills learners but focus on either their design, use or perceptions regarding them rather than experimentally evaluating their efficacy. For example, a report by The Reading Agency (2010) contains a number of case study examples of how digital games are being used across adult basic skills providers in the UK to help learners improve their literacy, numeracy and ICT skills but only provides anecdotal evidence of their efficacy. One of these examples is the use of a version of the quest-based role-playing game 'Neverwinter Nights' that has been adapted to include literacy and numeracy tasks by researchers at West Nottinghamshire College. The game package gets learners reading game instructions, dialogue and tasks and they are also encouraged to write during play. It covers aspects of literacy, numeracy and problem solving skills from a basic, pre-GCSE to GCSE level and feedback is given in the game and can also be printed out. The Reading Agency (2010) report claims that the key skills success rate at the college trebled to 94% after the game was introduced.

Kambouri et al. (2006) report the use of an educational game called 'Runner' developed by the University for Industry (Ufi/learndirect) to encourage young adult learners into literacy training. The authors report that "Runner provided learners with the chance to experience literacy learning within a gritty and dark Blade Runner-like atmosphere" (p. 395) and players were scored on listening, reading and grammar. They conclude that Runner was successful in engaging the target population and that learners made significant literacy gains although it should be noted that this was based on interviews and questionnaires with 13 learners. Learners reported that they enjoyed playing the game, found the storyline interesting and compelling, found the game engaging and could see its value in literacy learning.

Other studies have attempted to evaluate the use of massive multiplayer online role-playing games (MMORPGs) such as 'World of Warcraft' in developing literacy skills as gamers are continually required to read written text, understand oral narrative and communicate to each other through writing. Steinkuehler (2007) argues that such games are not replacing literacy practices, they are literacy practices, helping gamers develop authentic, creative and wide-ranging literacies through reading and writing tasks. In a small pilot study, Rankin et al. (2008) conclude that the use of a user-centred MMORPG (Everquest II) was effective in increasing the vocabulary of adult ESL learners.

To conclude, digital games have the potential to be effective methods of engaging and motivating adult basic skills learners but more research is needed, particularly in the context of adult learning, to determine whether this is the case and the extent to which playing games results in actual skills gain.

6.13.5 Learning Through Social Networking Sites (SNSs)

Research on how adult basic skills learners use SNSs such as Facebook to facilitate their learning or how SNSs might or are being used to facilitate adult learning is limited. One Canadian study has attempted to address these questions through reviewing the limited literature and observing and interviewing a small number of adult basic skills learners at three learning sites in the city of Edmonton (Chovanec & Meckelborg, 2011). They found that learners predominantly used SNSs for social purposes but in doing so are informally learning and developing a number of skills although this was generally not recognised. In use of SNSs and other social media such as blogs people learn technical skills, communication and creativity skills, they construct identities and knowledge and gain confidence in themselves and their abilities (Chovanec & Meckelborg, 2011). They also practice reading and writing. However, when asked about whether using SNSs would enhance literacy learning the view of the learners that Chovanec and Meckelborg (2011) interviewed were mainly negative with learners commenting that the use of slang and 'text speak' on SNSs such as Facebook was a deterrent to learning.

Although studies have shown that college and school learners use SNSs informally for educational purposes such as helping each other with assignments, catching up on missed classes, exchanging practical information about classes and for group work (e.g., Bosch, 2009; Selwyn, 2009; Fewkes & McCabe, 2012), their response to formal uses to aid learning has also typically been mixed with the common view that they should only be used for social purposes (e.g., Madge et al., 2009; Selwyn, 2009). One study found that students thought Facebook was useful for arousing interest and motivation, interacting with other students and disseminating information but didn't like mixing study with entertainment/their social lives (Çoklar, 2012). Another study highlights limitations of using Facebook as an aid to learning in terms of it not being able to support structured discussions or guarantee privacy (Wang et al., 2012).

Regardless of student opinion, there is evidence that SNSs are being used to facilitate learning formally. A review of 23 articles by Manca and Ranieri (2013) showed that, in higher education settings, Facebook was mainly used for supporting discussion and collaborative learning. It was also used for developing multimedia content, sharing resources, delivering content, and to support self-managed learning. In terms of the feature usage of the studies reviewed only one reported using an application developed within the Facebook platform, the most popular feature used was the 'private group' feature. This feature allowed students to share resources and post comments and wall posts in order to have discussions. The 'page' feature was used to a much lesser extent and mainly to deliver resources and course content.

The review also summarises mixed findings of the use of Facebook as a supportive and interactive learning tool. Four studies found that interaction and discussion of topics on Facebook increased learners' participation in class and encouraged classroom discussion (Schroeder & Greenbowe, 2009; Estus, 2010; McCarthy, 2010; DiVall & Kirwin, 2012). However, these benefits may be dependent on the majority of learners joining groups or liking pages which, because of the aforementioned views of students, may be an issue. One study evaluating the use of Facebook in an online course showed that the majority of students didn't join the Facebook group mainly because of privacy and security issues (Kop et al., 2011). It is possible that in online learning environments where students do not typically meet each other Facebook may not be an appropriate source for providing support as learners may not want people they do not know being able to access personal information about themselves. Other learning management systems such as Moodle or Blackboard may be more appropriate in these situations as learners have more control over what personal information other people can see.

To conclude, there is very little research on the use of SNSs to facilitate learning in adult education. Their use in higher education has been documented but evaluations of their efficacy and learners' attitudes towards using SNSs for formal learning purposes has been mixed. Manca and Ranieri (2013) point out that of the research they reviewed, measures were very rarely taken to ensure the reliability and validity of results. More robust research is needed to determine under what conditions use of SNSs are effective in learning, whether they are effective for adult learners and how SNSs can be utilised to help learning. For example, many studies report on the use of Facebook as a learning management system but other functions such as applications may be fruitful areas for development of learning aids. Chovanec and Meckelborg (2011) conclude that first the question should be asked as to whether SNSs are appropriate to be used for formal adult educational purposes and, if so, considerations such as access, ability, safety, privacy, maintaining a social focus and ways in which to bridge informal learning with more formal adult education should be made.

6.13.6 Providing Reminders

Providing reminders using text messages has been shown to be a valuable tool for focusing attention on goal-oriented tasks and behaviours, ultimately leading to an increase in goal achievement. For example, Karlan et al. (2010) found that providing savers with reminders to make a deposit resulted in a 6% increase in the amount saved compared to savers who received no reminder. This increased to a 16% difference when the reminder also mentioned the specific goal that the saver was saving for. Text message reminders have also been used to reduce the number of people not attending healthcare appointments; a systematic review of 8 RCTs showed that, overall, reminders increased attendance rates by 10.8% from 67.8% (no reminder control group) to 78.6%. This review also highlighted that text message reminders are more cost-effective than

phone call reminders (costing on average 60% less) and are just as effective (Gurol-Urganci et al., 2013).

Text message reminders could be used in the context of adult learning to encourage sign-up and attendance. Castleman and Page (2013) found that sending students text message reminders during the summer before they started college, which detailed the tasks they needed to complete in order to enrol and weblinks to complete these tasks, increased subsequent enrolment rates by 4-7% compared to students not receiving messages.

6.14 Summary

This section highlighted a number of strategies that can be used to encourage adults in to learning, to persist in learning or both. Adults may be particularly receptive to addressing their basic skills needs at times where they become ready to learn and can see the benefits of doing so. Therefore identifying and utilising these moments may be an effective way of encouraging people in to learning. These may be moments such as when children start to need help with homework or when people change jobs or become unemployed.

Participation in learning can also be encouraged through making it easy for people to access information about courses, sign up to courses and attend courses and through effective marketing of courses which may involve making marketing materials attractive (e.g., simple, novel, vivid and personal), making them targeted to the people you are trying to encourage into learning, using messages that emphasise the losses that occur as a result of inaction, evoking positive emotions, using pictures and case studies of people who are similar to those that are being targeted in marketing materials and using scarcity. How the course is labelled can also affect its attractiveness and courses should be labelled in ways that detract from the fact they are basic skills courses. Labelling courses in such a way that they are seen as being relevant to accomplishing a goal such as managing finances, being more organised or helping children may be particularly effective.

Evidence of the efficacy of using incentives to increase participation, attendance and performance on courses is mixed, especially in adult education. It may be worthwhile to further investigate their use taking into account insights from behavioural sciences when designing interventions. More research is needed to investigate whether or not non-monetary incentives may be effective in adult education settings.

Appropriate placement onto courses, information, advice, guidance and support, particularly during the first few weeks of the course, can encourage engagement and persistence. Research has suggested that peer support encourages both engagement

with and persistence in learning. We are heavily influenced by those around us (such as our friends and family) and similar others (those who are similar to ourselves in terms of background, age, gender or race) and tend to conform to the beliefs, attitudes and behaviours of the majority. Under uncertainty, for example, when trying to decide whether to engage with learning, we are likely to look to others to judge the best course of action. Encouragement in to learning by similar peers (especially those who have undertaken learning) may be particularly effective and a number of schemes have shown this to be true (e.g., Community Learning Champions and Union Learning Representatives). Once in learning, persistence has been shown to be supported by the presence of a 'sponsor' – an individual or individuals in the learner's social network who provides support and encouragement. Support from other learners can also aid persistence, highlighting the importance of fostering an inclusive and cohesive learning environment.

Research suggests that the nature and quality of the relationships between learners and both their teachers and their peers has a substantial impact on engagement within learning. Sense of belonging is closely linked to perceptions of autonomy, self-efficacy and intrinsic motivation all of which encourage engagement and persistence. Feelings of community and inclusion can be fostered through not allowing first impressions to shape continuing evaluations of learners, providing introductions and icebreakers where students can get to know each other and state their expectations of the course and using collaborative and cooperative learning strategies.

Negative beliefs and attitudes towards the self and learning are substantial barriers to participating and persisting in learning. Positive learner identities can be developed in a number of ways including positively confronting negative attitudes and beliefs, making adult learning experiences completely different to school ones, making learning relevant and by encouraging students to connect with people who have positive learner identities. Self-esteem, internal locus of control and self-efficacy can be developed through allowing learners control over their learning, helping them to attribute success internally, providing support, praise and encouragement and through using goal setting methods, learner plans and/or contracts. Growth mindsets are associated with greater academic persistence and achievement and can be shaped both indirectly through teachers modelling consistent behaviour and awarding appropriate praise and directly by teaching people about the plasticity of the brain and what happens in the brain during learning.

Establishment of clear, well-defined goals and the steps needed to achieve them is associated with greater persistence, enthusiasm for the task and self-regulation in terms of diverting attention and energy away from goal-irrelevant activities and towards goal-relevant ones. Progressing towards and attaining goals is associated with increased positive affect, well-being, self-efficacy and expectations of success. Mental contrasting and implementation intentions are complementary self-regulatory strategies that can help to strengthen goal commitment and facilitate effective planning respectively. Regular

monitoring, feedback and recognition of both small and large gains in learner progress and showing the learner how these gains can benefit other areas of their lives also encourages persistence. This highlights the importance of recognising a wide range of learner achievements from so called 'soft' outcomes such as increases in confidence, self-esteem, trust and motivation to 'hard' outcomes such as increases in test scores, ability and achievement.

Commitment devices such as learner contracts and individualised learning plans are effective in encouraging both commitment and motivation and promoting self-directed and individualised learning. They are also considered to be effective in improving learning performance and adult's expectancy of success, although no formal review of their efficacy could be found in literature searches conducted for this review.

Technology can support engagement and persistence with adult learning through its ability to facilitate many of the things that have been highlighted in this review as being influential on engagement and persistence. For example, digital learning platforms allow students autonomy over their learning path (they can choose the content of their curriculum), to create a personalised learning plan, progression at their own pace, to receive and provide peer support and immediate feedback about their productivity and progress. Intelligent tutoring systems provide online learning environments that are adaptable to the individual, offering a tailored learning experience and immediate feedback to both the learner and teacher. They are able to gauge the student's ability level and provide optimally challenging tasks. Text message reminders can be useful to focus attention on goal-oriented tasks and behaviours and could be used to encourage sign-up and attendance.

Mobile technologies have the potential to support engagement and persistence as they promote access and social inclusion, have the ability to support delivery of content in ways that the learner prefers and learns best through, can offer a wide range of learning activities giving the learner autonomy, can deliver personalised content that is relevant, can facilitate flexible learning, can be used to practice outside the classroom and at times when the learner is unable to attend formal classes, can provide immediate feedback on learning activities and can be used to access support from other learners. However, this potential may be being under-exploited in adult learning as mobile technologies are mostly being used to access, create and download content. Little evidence could be found as to whether the use of mobile technologies had been robustly tested (especially in the context of adult learning) and whether their use leads to improved outcomes in terms of engagement, persistence and achievement.

Use of digital games has become of increasing interest in education as they can include many elements that foster intrinsic motivation and, in turn, encourage engagement and persistence such as optimally challenging tasks, clear goals, clear and immediate feedback, social support and interaction, collaboration, active learning,

adaptivity/individualisation, control, relevance/interesting, incentives, engaging stimuli and the ability to focus concentration on the task. Although games based learning may seem a promising aid to traditional learning on the surface, evidence of whether digital games do increase motivation to learn and, more importantly, whether their use results in improved learning outcomes, is mixed. More research is needed, particularly in the context of adult learning, to determine whether this is the case.

Social networking sites (SNSs) have the potential to be useful in both engaging adult learners and providing the support needed to help them persist in learning. SNSs are used in colleges and schools to support discussions and collaborative learning, to develop multimedia content, share resources, deliver content and to support self-managed learning. However, evaluations of their efficacy and learners' attitudes towards using SNSs for formal learning purposes have been mixed with the common view that they should only be used for social purposes. There is very little research on the use of SNSs to facilitate learning in adult education. Robust research is needed to determine under what conditions use of SNSs are effective in learning, whether they are effective for adult learners and how SNSs can be utilised to help learning. For example, many studies report on the use of Facebook as a learning management system but other functions such as applications may be fruitful areas for development of learning aids.

Where the use of technology has been tested in research this has mainly been with schoolchildren and younger adults and consideration should be given as to their suitability for adults who may not be used to using such technologies in their everyday lives. One project on adult mobile learning showed that adults varied greatly in their mobile expertise and in the devices that they owned with many not being familiar with applications or able to access the internet. Digital games may be appealing to younger adults but little is known as to how they might be received by older ones.

One study that reviewed how SNSs may be used to facilitate adult education concluded that first the question should be asked as to whether SNSs are appropriate to be used for formal adult educational purposes and, if so, considerations such as access, ability, safety, privacy, maintaining a social focus and ways in which to bridge informal learning with more formal adult education should be made.

7 Useful Aids for Encouraging Participation and Persistence

7.1 Stick With It Guides

Two of the outcomes from the PPA project were guides on how to help adult learners persist. The first guide is for managers, practitioners and learners (NRDC, 2008a; link available in references section) and contains a number of extremely useful materials for all three to use to encourage persistence. These includes checklists and activities to see how well persistence is currently supported, plans to encourage greater persistence and strategies to support persistence. The second is a guide for teachers explaining how ICT can be used to help learners persist and ways in which to do so (NRDC, 2008d; link available in references section). Both guides also explain what persistence is and factors that are important in supporting it.

7.2 Strategies to Support Persistence

One of the outcomes from the MDRC/NCSALL persistence study was a programme administrators' sourcebook (Taylor et al., 2005) which outlines the main findings of the study and includes strategies to support persistence. Many evidence-based strategies to support persistence can also be found on the New England learner persistence project's website: <http://www.nelrc.org/persist/>

7.3 Strategies to Enhance Adult Motivation to Learn

Wlodkowski (2008) and Keller (1987) both outline a number of strategies to keep adult learners motivated in learning so that they persist and complete courses. Keller (1987) also describes how to implement motivational strategies into existing learning material.

8 Conclusions

This review aimed to provide an understanding of the barriers to participating and persisting in basic skills learning that adults face and ways in which these can be overcome to encourage adults into learning and to encourage them to stay in learning long enough to make significant gains. There are many barriers to learning and these are commonly categorised as being either situational, institutional or dispositional in nature. Commonly cited situational barriers to learning include cost, the location of the course, work commitments and lack of childcare, transport or time. Institutional barriers are those put in place by the institution offering the course and these include inconvenient class times, limited provision, lack of information about courses, funding restrictions, poor quality teaching, lack of support and guidance and a lack of inclusion for all learners. Dispositional barriers include negative attitudes and beliefs about learning that are often established during childhood and are reinforced by like-minded peers, low self-esteem and self-efficacy (belief in abilities), fixed mindsets, lack of motivation and a lack of awareness of training need. Situational barriers are the most commonly cited barriers to participation and persistence in learning. However, it is possible that many people may not want to admit that dispositional or institutional barriers have stopped them from participating in learning and so they cite situational barriers as their reasons as they are 'easier' reasons to give.

Dispositional barriers are likely to have the largest impact on learner engagement and persistence and it is these barriers that practitioners may understand the least. This is because when attitudes and beliefs are so strong, situational and institutional barriers become irrelevant as even if these barriers were removed the individual would still not want to learn. There are many strategies that can be used to overcome these barriers once the learner is through the door so to speak and on a course (see below) but overcoming these barriers enough to get them through the door in the first place is a tough challenge. This could be aided greatly through community outreach by mentors/role-models that are similar in terms of age, gender, ethnicity and background to targeted populations (e.g., Community Learning Champions and Union Learning Representatives). Research has shown that participation in adult learning of any kind can improve confidence and self-esteem, change attitudes towards learning and encourage people on to further learning. Therefore, if people can be encouraged to participate in short, taster, work-based, community or family learning courses then this may be enough to change their perceptions about themselves and learning and motivate and encourage them to address their basic skills needs. Research suggests that 'critical incidents'; changes in life circumstances such as having a child or changing or losing a job, may spark an awareness of training need that results in a change of attitudes towards learning. These moments could be effective times to encourage adults to address their basic skills needs as they may have made them ready to do so.

Once on courses, teachers can help to address negative beliefs and attitudes towards the self and learning in a number of ways including positively confronting negative attitudes and beliefs, making the learning experience completely different to childhood learning, making learning relevant and by encouraging students to connect with people who have positive learner identities. Self-esteem, internal locus of control and self-efficacy can be developed through allowing learners control over their learning, helping them to attribute success internally, providing support, praise and encouragement and through using goal setting methods, learner plans and/or contracts. Growth mindsets are associated with greater academic persistence and achievement and can be shaped both indirectly through teachers modelling consistent behaviour and awarding appropriate praise and directly by teaching people about the plasticity of the brain and what happens in the brain during learning.

Institutions need to make sure that they provide a wide range of provision at different levels and times during the day and week to accommodate learners' needs. Of crucial importance is that good quality initial assessments are undertaken so that learners are matched to the right course and that learners are given enough information, support and guidance during their induction and first few weeks of the course, as this is a critical time for retention. Support needs to be provided throughout the course and more needs to be done to put practices in place to support learners who need to dip in and out of learning because of their lifestyles. Research suggests that the nature and quality of the relationships between learners and both their teachers and their peers has a substantial impact on engagement within learning. Sense of belonging is closely linked to perceptions of autonomy, self-efficacy and intrinsic motivation all of which encourage engagement and persistence. Feelings of community and inclusion can be fostered through teachers not allowing first impressions to shape continuing evaluations of learners, providing introductions and icebreakers where learners can get to know each other and state their expectations of the course and using collaborative and cooperative learning strategies.

Institutions may need to think about ways in which they can effectively communicate information about courses to harder to reach learners, make information easily available to all, make courses more accessible to non-White learners and effectively market courses in general. This may involve using strategies such as making marketing materials attractive (e.g., simple, novel, vivid and personal), making them targeted to the people you are trying to encourage into learning, using messages that emphasise the losses that occur as a result of inaction, evoking positive emotions, using pictures and case studies of people who are similar to those that are being targeted in marketing materials and using scarcity. How the course is labelled can also affect its attractiveness and courses should be labelled in ways that detract from the fact they are basic skills courses. Labelling courses in such a way that they are seen as being relevant to accomplishing a goal such as managing finances, being more organised or helping

children may be particularly effective. More people may be encouraged into learning if childcare was provided, if travel costs were met or courses were held in more accessible locations within the community. Work providers should encourage adults to undertake basic skills training and be flexible in terms of scheduling work around classes and allowing time off for assessments if they choose to do so.

Research shows that the styles of provision that support participation and persistence in learning are those that support elements of the theories outlined at the beginning of this review. For example, learner-centred approaches can allow learners some autonomy over their learning journey when the learner and teacher together plan what is to be learned, where, when and how and when learning content is tailored to the learner's goals, motivations and interests. When ALN provision is embedded in subjects that are of interest to the learner and in line with their goals this makes learning relevant and purposeful – learners can see directly how what they are learning will benefit them in the future. Blended learning courses where learners study in part online and in part in the classroom give learners flexibility in and autonomy over learning and provide a learning experience that is completely different to one they have had in school which may also encourage participation in courses. Persistence is supported by teaching and learning environments that foster community and inclusion, intrinsic motivation, positive attitudes towards the self and learning and that take into consideration learners' backgrounds, experiences and knowledge.

Work-based learning programmes have the potential to be a good method of encouraging people in to learning as they do not require learners to attend formal institutions, are more likely to fit around people's lives if they are conducted during working hours, provide a completely different learning environment to childhood learning and are likely to promote positive beliefs and attitudes towards learning as if people can see that their colleagues are attending courses they may be more likely to do so also. Persistence can be supported on these courses by embedding ALN content into topics relevant to the person's work and through colleagues supporting each other. However, evaluations of work-based basic skills learning programmes have shown that although they do have large impacts in terms of changing attitudes towards learning and encouraging workers to engage in further learning, they have little effect on improving skills. This is possibly because they are usually short in duration and do not tend to embed content in topics relevant to the workplace and it would be interesting to see whether the impact on skills gain would change if work-based programmes were designed more effectively.

Likewise, family English and maths learning (FEML) has been found to be especially effective in engaging and retaining adults possibly because parents are highly motivated to help their children develop both cognitively and socio-emotionally. However, the impact of FEML on adult basic skills gain is inconclusive mainly because evaluations

have not used robust methods and have tended to measure skills gain through self-report rather than using standardised measures. Also, very little is known about how comparative adult skills gains on FEML courses are to those gained on other adult literacy or numeracy courses. Therefore, robust research is needed to both evaluate the impact of FEML courses on adult basic skills gain and to investigate how comparable skills gain is to standard basic skills provision.

Specific strategies that have been shown to encourage persistence in adult learning (other than those already mentioned) include the use of goal-setting methods, encouragement, effective feedback and learner plans/contracts. Establishment of clear, well-defined goals and the steps needed to achieve them is associated with greater persistence, enthusiasm for the task and self-regulation in terms of diverting attention and energy away from goal-irrelevant activities and towards goal-relevant ones. Progressing towards and attaining goals is associated with increased positive affect, well-being, self-efficacy and expectations of success. Mental contrasting and implementation intentions are complementary self-regulatory strategies that can help to strengthen goal commitment and facilitate effective planning respectively. Regular monitoring, feedback and recognition of both small and large gains in learner progress and showing the learner how these gains can benefit other areas of their lives also encourages persistence. This highlights the importance of recognising a wide range of learner achievements from so called 'soft' outcomes such as increases in confidence, self-esteem, trust and motivation to 'hard' outcomes such as increases in test scores, ability and achievement. Commitment devices such as learner contracts and individualised learning plans are effective in encouraging both commitment and motivation and promoting self-directed and individualised learning. They are also considered to be effective in improving learning performance and adult's expectancy of success, although no formal review of their efficacy could be found in literature searches conducted for this review.

Evidence of the efficacy of using incentives to increase participation, attendance and performance on courses is mixed, especially in adult education. It may be worthwhile to further investigate their use taking into account insights from behavioural sciences when designing interventions. More research is needed to investigate whether or not non-monetary incentives may be effective in adult education settings.

Technology has the potential to support engagement and persistence in adult learning through its ability to provide a novel learning experience and to facilitate many of the things that have been highlighted in this review as being influential on engagement and persistence. For example, digital learning platforms allow students autonomy over their learning path (they can choose the content of their curriculum), to create a personalised learning plan, progression at their own pace, to receive and provide peer support and immediate feedback about their productivity and progress. Intelligent tutoring systems

provide online learning environments that are adaptable to the individual, offering a tailored learning experience and immediate feedback to both the learner and teacher. They are able to gauge the learner's ability level and provide optimally challenging tasks. Text message reminders can be useful to focus attention on goal-oriented tasks and behaviours and could be used to encourage sign-up and attendance. Digital games can include many elements that foster intrinsic motivation and, in turn, encourage engagement and persistence such as optimally challenging tasks, clear goals, clear and immediate feedback, social support and interaction, collaboration, active learning, adaptivity/individualisation, control, relevance/interesting, incentives, engaging stimuli and the ability to focus concentration on the task. Mobile technologies can facilitate flexible learning, the delivery of a wide range of learning content and collaborative learning and can also be used to access support from other learners. Social networking sites (SNSs) can facilitate collaborative learning and social support.

However, this potential may be being under-exploited in adult learning as very little research could be found on the use of technology in adult education settings. This may be because the use of technology is seen as being more appropriate in schoolchildren and younger adults who are more likely to use technology in their daily lives and therefore already possess the skills required to use it in education. Careful consideration needs to be made as to whether use of technology is suitable for adult basic skills learners. One project on adult mobile learning showed that adults varied greatly in their mobile expertise and in the devices that they owned with many not being familiar with applications or able to access the internet. Digital games may be appealing to younger adults but little is known as to how they might be received by older ones. One study that reviewed how SNSs may be used to facilitate adult education concluded that first the question should be asked as to whether SNSs are appropriate to be used for formal adult educational purposes and, if so, considerations such as access, ability, safety, privacy and maintaining a social focus should be made. Nonetheless, technology could be used in adult basic skills education to support engagement and persistence in so many ways that it is well worth exploring this area. Any development and testing of technology-based interventions in the context of adult learning would be adding greatly to the evidence base in this area.

One reoccurring theme that has emerged throughout compiling this review was the lack of robust methods across all areas of educational research. Although many researchers have called for the use of RCTs in education for many years (e.g., Torgerson & Torgerson, 2001; Brookes et al., 2008a, Vorhaus et al., 2011) there is still a distinct lack of RCTs or even elements of robust practices being used meaning that many findings may be unreliable. Many studies evaluate initiatives and interventions using only qualitative methods or self-reported outcomes. Where evaluations are conducted experimentally, one-group pre-and post-test designs tend to be used. Often valid and reliable outcome measures are not used, confounding variables are not controlled for nor

are sample size calculations carried out and sample sizes tend to be very small. This is an area where BIRCEM can add a lot of value.

To conclude, as this review highlights, there are many different ways in which adults can be encouraged to participate and persist in basic skills learning. However, little is known about what strategy or combination of strategies are most effective due to a general lack of research in this area and a lack of robust research. BIRCEM can add a lot of value by rigorously testing interventions in order to determine what works best in encouraging participation and persistence.

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