

Flinders University
Australian Industrial
Transformation
Institute

Understanding everyday money skills for young people with disabilities



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***Understanding everyday
money skills for young
people with disabilities***

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Executive Summary

Financial literacy

Financial literacy is commonly recognised as referring to the skills, knowledge and confidence that support individuals making informed and effective decisions about the use and management of their money across a range of contexts. Financial literacy is not static but grows and expands throughout life. It requires the integration of basic maths, personal experience, attitudes and values along with the use of both cognitive and practical financial literacy skills. And critically, it requires confidence to ask questions, seek advice and make decisions (OECD, 2013).

Increasingly countries, including Australia, have become concerned about the level of financial literacy evident in their populations (Financial Literacy Foundation, 2007; OECD, 2013; Orton, 2007; Worthington, 2013). Barriers to understanding and accessing financial services are experienced by many. However, people who are socially and economically disadvantaged and those with literacy and numeracy difficulties are likely to face the biggest hurdles with understanding and access (Conroy & O'Leary, 2005; SEDI, 2008). Poor financial literacy, financial hardship and financial exclusion are often intertwined with social exclusion. However, improving financial literacy can positively impact individuals through the promotion of financial resilience, and by improving financial decision making, asset building and social engagement (Drew, 2013; Mittapalli, 2009).

It is recognised that financial literacy skills are learnt in a range of ways (OECD/INFE, 2015). Early learning often comes from parents and other family members. Peer to peer learning also contributes to general awareness and experience with financial services and products, as does specific education within schools and school savings programs. With the later having the additional benefit of providing a consistent program of learning for students from a range of economic backgrounds thereby reducing gaps and inequity in financial literacy for those from lower socio-economic backgrounds.

Disability

There is no one definition of disability¹. However, the United Nations *Convention on the Rights of Persons with Disabilities* includes the following definition:

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. (United Nations, 2006)

The UN Convention seeks to recognise the rights of disabled persons to participate in the social, cultural, political and public life on an equal basis to other members of society. Amongst other things, it includes equitable access and opportunities, the right to respect and freedom from exploitation, discrimination and abuse.

The *National Disability Insurance Scheme* (NDIS) has been established as a national social insurance scheme providing fairer support to individuals with severe and profound disabilities and their carers. Under the NDIS people with disabilities and/or their carers will have choice and decision making ability - they can choose their own providers, determine the appropriate package of services and direct funding to areas of individual need (self-directed funding). Participants will receive monthly statements detailing the money received and spent. It is critical that those in

¹ For the purposes of this project, the term 'disability' is used to refer to intellectual and multiple disabilities.

control of this resource have the financial literacy to adequately and appropriately control it. However, this is often not the case. Financial education opportunities for people with disabilities have not always been equitable resulting in the financial literacy of many people with disabilities being suboptimal (Lombe, Huang, Putnam, & Cooney, 2008).

Financial literacy education for youth with disabilities

Teacher's aids or curriculum targeting financial literacy provide limited if any examples of financial literacy training for young people with disabilities, often meaning individual teachers are left to modify the mainstream curriculum on a case-by-case (or school-by-school) basis with the adapted curriculum not always subject to wider review or evaluation. In effect, although some education is available in primary and secondary schools relating to financial literacy for young people with special needs, in many cases parents continue to play a key role in supporting and informally educating their children about money and teaching them about the value of money and responsible financial management (Mittapalli, 2009; The Money Advice Service, 2013).

The transitional phase when youth with disabilities transfer from school to the workforce poses many challenges. Critical to this transition is the ability to manage new financial responsibilities relevant to employment or other income sources and associated spending. It is in the transition to work where financial literacy skills and the ability to budget income against expenditure is tested directly.

Framework and approaches for special needs teaching

Universal design for learning (UDL) was initially developed by David Rose in the 1990s as a flexible approach to accommodate individual learning differences. As such it is a valuable framework for teaching young people with disabilities. This framework recommends designing curriculum that provides multiple means of representation, action and expression and engagement (CAST, 2011; Forlin, Chambers, Loreman, Deppler, & Sharma, 2013).

Learners differ in how they perceive and understand information. The use of different representation (text, visual and auditory) not only serves to support those who learn in different ways but facilitates learning as it enhances connections between concepts (CAST, 2011). Options should be provided for learning through physical action, expression and communication and executive function. These approaches provide alternate ways for learners to demonstrate what they know. It is important to use multiple methods for engaging and maintaining learner interest. Options and choice should be available for the type and level of task challenges, motivations and rewards. Activities need to be authentic, relevant and meaningful to ensure learner engagement.

Project- and problem-based learning (both referred to as PBL) approaches engage students in solving open-ended real world problems (Edutopia, 2015; Krajcik & Blumenfeld, 2006). They share a number of characteristics, both are focused on open-ended questions or tasks and provide an authentic real world experience which includes applying skills to tasks.

Differentiated instruction accommodates the diverse academic needs of students while aiming to achieve equivalent learning outcomes. As students have a range of different learning styles it is therefore best, wherever possible, to target learning activities to suit individuals. Key learning processes include activating the learning relating to a new topic to things previously learned. This approach also encourages explanations about the purpose of the material and what can be achieved once the material is learnt.



Developing a financial literacy program for youth with disabilities

A financial literacy program for youth with disabilities needs to draw on standards developed for their peers, while recognising their differential capability level - both as individuals and as a group. Numeracy is the critical core skill for understanding and using money and financial services (National Adult Literacy Agency, 2015). At their basic level, addition and subtraction (multiplication and division) are the foundational numeracy core competencies required in financial literacy education.

Building confidence is also key to effective learning, with confidence coming from experience. Understanding the interests of the learner can help determine the specific resources to be employed. For example, if students are interested in shopping then resources can include photos of shop windows, sale signs, brochures, receipts and copies of labels (National Adult Literacy Agency, 2015). Understanding what students feel about money is also important. This is particularly relevant when learners have had a negative experience or perception about money. Helping them understand that saving is 'smart' has been found to be an effective strategy to build enthusiasm and confidence (National Adult Literacy Agency, 2015). Teaching approaches for young people with disabilities should be engaging, hands-on, recognise individual differences, be discrete in purview and outcome focused (Mittapalli, 2009; The Money Advice Service, 2013).

Recognising and counting money is a core foundational skill for all financial transactions and critical for independent living. Developing a program on valuing money should include elements of decision-making about the use (spending and saving) of money. This includes weighing up short and long-term goals and planning on how and when to realistically achieve the goals. Techniques to improve the ability of young people with disabilities to transact safely with money is critical for independence. For people with disabilities, credit and debit cards, online shopping and internet banking can be difficult to understand as they are 'abstract' forms of money – and abstract concepts have been difficult to grasp for people with a learning disability. Accordingly, these transactions are not always readily understood as the same as using cash.

Assessment

Currently, assessment of special needs students in Australia focuses more on attitudes, skills and competencies than the curriculum. Although curriculum adjustments and differentiation for these students is supported in policy, it is left to be applied by the teacher (Australian Curriculum Assessment and Reporting Authority, 2012). Inclusive assessment seeks to provide an assessment environment where policy and procedure in mainstream settings support and promote learning, participation and inclusion of *all* students (European Agency for Special Needs and Inclusive Education, 2015).

Rubrics are often used as a tool to support assessment and understanding learning in students with special needs. They are standardised and easier to assess for the teacher and understand for the student. Rubrics consist of four parts – task, scale, dimension and description (Busch, 2013). Analytic rubrics are most suitable for classroom applications as they enable students to focus on the specific achievement of a task (Brookhart, 2013). They clarify for students what they should achieve in their learning and encourage teachers to focus on the critical elements of their teaching and assessment.

The key aim of the *Everyday Money Skills for Young People with Disabilities* project is to improve the ability of young people with intellectual and multiple disabilities to engage with their finances in preparation for the implementation of National Disability Insurance Scheme (NDIS) and the transition from school to work. We aim to create a school to work financial literacy module with the intention of developing it into a modified South Australian Certificate of Education (SACE) unit.

1 Financial literacy

Financial literacy is commonly recognised as referring to the skills, knowledge and confidence that support individuals making informed and effective decisions about the use and management of their money across a range of contexts. Financial literacy is not static but grows and expands throughout life. It requires the integration of basic maths, personal experience, attitudes and values along with the use of both cognitive and practical financial literacy skills. And critically, it requires confidence to ask questions, seek advice and make decisions (OECD, 2013).

Financial literacy is an essential element in consumer protection and financial safety ensuring individuals have the required knowledge for purchases to fulfil basic needs, skills for banking, insurance and planning for the future through to more complex financial dealings (Ali, Anderson, McRae, & Ramsey, 2014). The absence of financial literacy skills and knowledge can negatively impact an individual's quality of life, their sense of financial security and their opportunity to participate equitably in society.

Increasingly countries, including Australia, have become concerned about the level of financial literacy evident in their populations (Financial Literacy Foundation, 2007; OECD, 2013; Orton, 2007; Worthington, 2013). These concerns are heightened in the face of broader economic challenges. Today governments are transferring current and future financial risk to individuals through reduction in pensions and other benefits with these changes accompanied by increased emphasis on personal superannuation, investments and other savings. Accordingly, the supply and demand for financial products and services has increased and along with this the requirement to make complex comparisons and decisions between them.

Barriers to understanding and accessing financial services are experienced by many. However, people who are socially and economically disadvantaged and those with literacy and numeracy difficulties are likely to face the biggest hurdles with understanding and access (Conroy & O'Leary, 2005; SEDI, 2008). An Irish study found that adults with poor literacy and numeracy skills reported a number of concerns when dealing with financial institutions including being afraid of making mistakes when filling in forms, embarrassed if they caused delays in queues and inability to understand services, charges and interest on bank accounts – they were also afraid to ask for help. A number of ways to access services could be improved including 'plain English' brochures and resources, and promotional material that was inclusive of people with learning difficulties and disabilities engaging with institutions (Conroy & O'Leary, 2005; Prosper Canada, 2015; SEDI, 2008).

Financial exclusion refers broadly to when an individual lacks access to financial products and services. Lack of access may be due to a range of factors including limited locations of availability, insufficient clear, relevant and timely information and unaffordability of the products. People may be excluded from accessing financial products due to limited financial literacy (including not understanding product information) or inability to use the technology required to access the product (Drew, 2013). Drew further reported financial inclusion could best be promoted through 'plain English' - the use of simple language that avoids overly legalistic

terminology and utilises visual tools. Poor financial literacy, financial hardship and financial exclusion are often intertwined with social exclusion. However, improving financial literacy can positively impact individuals through the promotion of financial resilience, and by improving financial decision making, asset building and social engagement (Drew, 2013; Mittapalli, 2009).

Research shows that adults who have received financial literacy training are better able to manage their money, build assets and wealth, and more likely to make plans and save for retirement (OECD, 2013). These skills are becoming more important as financial systems become more complex and young people begin consuming financial services at earlier ages. Not only is online access to bank accounts readily available, but young people are increasingly exposed to other services which require financial literacy skills such as mobile phones, transport ticketing systems and credit. Correspondingly, the OECD has recommended that financial education should commence in school.

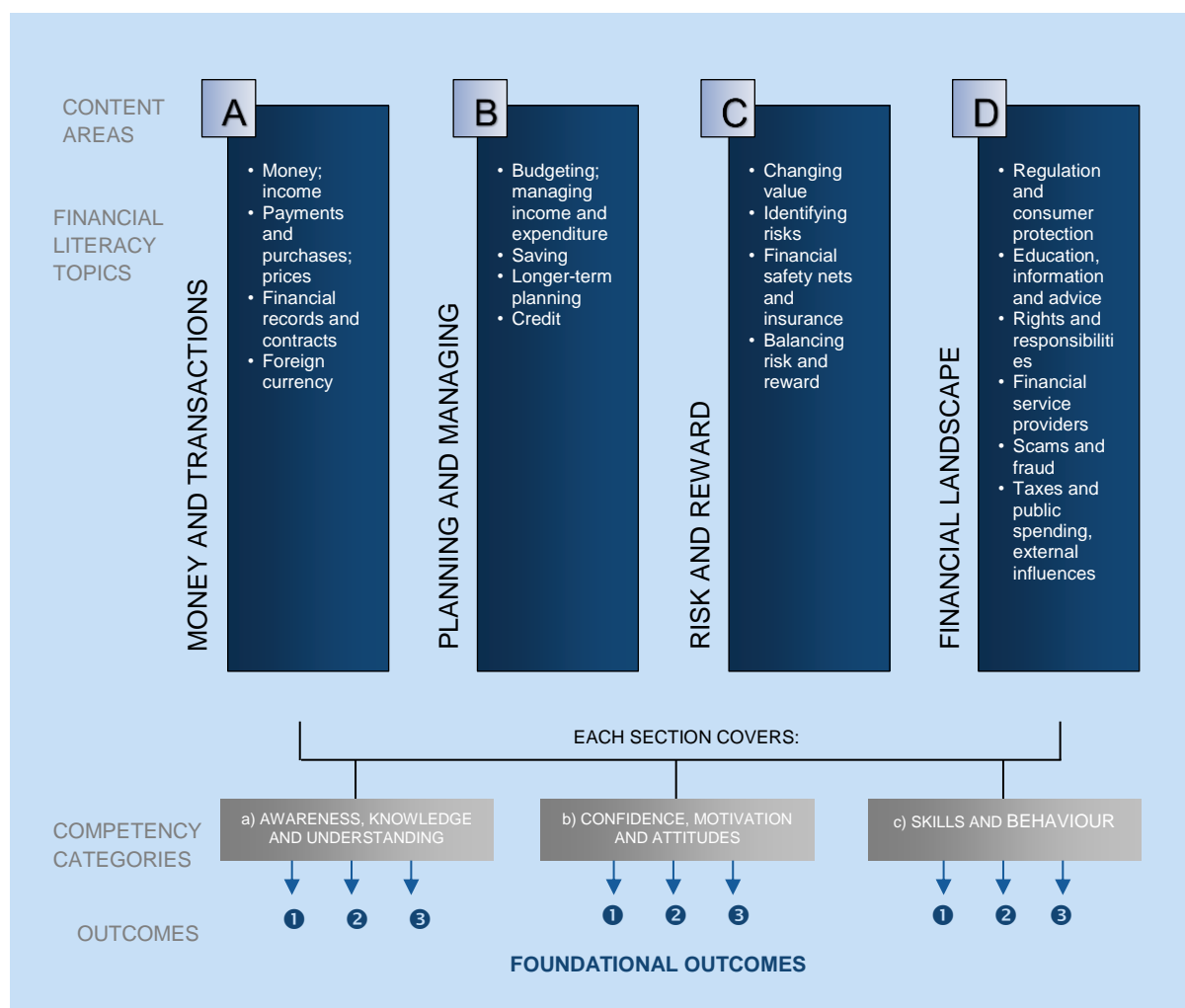
It is recognised that financial literacy skills are learnt in a range of ways (OECD/INFE, 2015). Early learning often comes from parents and other family members. Peer to peer learning also contributes to general awareness and experience with financial services and products, as does specific education within schools and school savings programs. With the later having the additional benefit of providing a consistent program of learning for students from a range of economic backgrounds thereby reducing gaps and inequity in financial literacy for those from lower socio-economic backgrounds.

The Australian *National Financial Literacy Strategy* was developed in the wake of the global financial crisis (GFC) in 2011 and updated three years later (Australian Securities and Investments Commission, 2014). It recognises the critical importance of financial literacy for Australians, with financial education in schools one of the key foundational planks of the revised 2014-17 strategy. The *National Consumer and Financial Literacy Framework* (MCEEDYA, 2011) provides a framework for the financial literacy of Year 10 students which aligns with those for 15 year olds as detailed by the OECD (2013).

The OECD/INFE (2015) core competencies are shown in Figure 1 and build on the *PISA Assessment Framework* (OECD, 2013). The competencies are divided into content areas: A) Money and transactions; B) Planning and managing; C) Risk and reward; and D) Financial landscape (each of which have associated financial literacy topics). The content are measured against three categories of competencies: a) Awareness, knowledge and understanding; b) Confidence, motivation and attitudes; and c) Skills and behaviour. Outcomes are then classified to show development rather than age, noting that development may vary between content, topics and categories.



Figure 1: Overall architecture of the OECD/INFE core competencies framework



Reproduced from OECD/INFE (2015)

The OECD-PISA have defined five financial literacy proficiency levels for students drawn from school assessments in 18 countries (OECD/INFE, 2015). Proficiency was determined by the hardest questions completed by the majority of students at each level with level 2 identified as the baseline for the effective participation of 15 year old students in society (see Table 1). Those achieving at the highest level are able to understand and manage relatively complex financial issues.

Table 1: OECD-PISA financial literacy proficiency levels

Level	Characteristics of tasks
1	Students can identify common financial products and terms and interpret information relation to basic financial concepts. They can recognise the difference between needs and wants and can make simple decisions on everyday spending. They can recognise the purpose of everyday financial documents such as an invoice and apply single and basic numerical operations (addition, subtraction or multiplication) in financial contexts that they are likely to have experienced personally.
Baseline	Students begin to apply their knowledge of common financial products and commonly used financial terms and concepts. They can use given information to make financial decisions in contexts that are immediately relevant to them. They can recognise the value of a simple budget and can interpret prominent features of everyday financial documents. They can apply single basic numerical operations, including division, to answer financial questions. They show an understanding of the relationships between different financial elements, such as the amount of use and costs incurred.
3	Students can apply their understanding of commonly used financial concepts, terms and products to situations that are relevant to them. They begin to consider the consequences of financial decisions and they can make simple financial plans in familiar contexts. They can make straightforward interpretations of a range of financial documents and can apply a range of basic numerical operations, including calculating percentages. They can choose the numerical operations needed to solve routine problems in relatively common financial literacy contexts, such as budget calculations.
4	Students can apply their understanding of less common financial concepts and terms to contexts that will be relevant to them as they move towards adulthood, such as bank account management and compound interest in saving products. They can interpret and evaluate a range of detailed financial documents, such as bank statements, and explain the functions of less commonly used financial products. They can make financial decisions taking into account longer-term consequences, such as the impact of loan repayment on cost, and they can solve routine problems in less common financial contexts.
5	Students can apply their understanding of a wide range of financial terms and concepts to contexts that may only become relevant to their lives in the long term. They can analyse complex financial products and can take into account features of financial documents that are significant but unstated or not immediately evident, such as transaction costs. They can work with a high level of accuracy and solve non-routine financial problems, and they can describe the potential outcomes of financial decisions, showing an understanding of the wider financial landscape, such as income tax.

Reproduced from OECD/INFE (2015)

Three key dimensions underpinning financial capabilities and education in Australia are detailed in the *National Consumer and Financial Literacy Framework* (MCEEDYA, 2011). These are presented in Box 1.



Box 1: Dimensions of financial learning

Knowledge and understanding

Students learn about the nature, forms and value of money; income and expenditure; and language commonly used in a range of consumer and financial contexts. They understand that money can come from a variety of sources and is used to meet and finance our needs and wants, now and in the future. Students develop a critical appreciation of the factors that affect consumer choices, including the impact of advertising, ICT and media. They develop knowledge and understanding of consumer rights and responsibilities, the legal rights and responsibilities of business regarding goods and services provided to consumers, and the risks and complexities in the consumer and financial landscape. Students learn to identify scams and other risks and understand options for seeking advice or redress in consumer and financial contexts.

Competence

Students learn to appreciate that money is a finite resource and needs to be managed. In a variety of 'real-life' contexts, they learn to use a range of practical tools and strategies (including IT, digital and online tools) to keep financial records, manage their finances on a daily basis, and to plan for the future. They understand the need to balance risk against reward and learn to work out 'best value' when purchasing a range of goods and services and choosing financial products. They learn to discriminate between fact and opinion and to evaluate the claims made in advertising. Students also become alert to risks in a range of consumer and financial contexts and learn ways to manage these effectively.

Responsibility and enterprise

Students explore what it means to be a responsible and ethical consumer and learn how business has legal and ethical responsibilities towards consumers. They examine and reflect on their own roles as producers and consumers of goods and services and how this role fits into the broader national and global economic and social contexts. Students also explore the roles that socio-cultural influences and personal values play in consumer and financial decision-making and learn that there are often consequences of consumer and financial decisions that may impact not only on individuals, and their families but also on the broader community and the environment. Students exercise personal and shared responsibility and develop enterprising behaviours through the application of consumer and financial knowledge and skills in relevant class and/or school activities such as student investigations, charity fundraising, product design and development, business ventures and special events.

(Reproduced from MCEEDYA, 2011, pp. 10-11)

2 Disability

There is no one definition of disability^{2,3}. However, the United Nations *Convention on the Rights of Persons with Disabilities* includes the following definition:

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. (United Nations, 2006)

The UN Convention seeks to recognise the rights of disabled persons to participate in the social, cultural, political and public life on an equal basis to other members of society. Amongst other things, it includes equitable access and opportunities, the right to respect and freedom from

² For the purposes of this project, the term 'disability' is used to refer to intellectual and multiple disabilities.

³ It is noted that other definitions of disability may include subjective elements such as a person's perception of difficulties with daily living. This approach is useful as it provides individuals with a level of self-determination about their ability level rather than pigeonholing them according to predefined categories that do not accommodate individual circumstances (SEDI, 2008).

exploitation, discrimination and abuse. The Convention contains eight guiding principles (United Nations, 2006):

1. Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons
2. Non-discrimination
3. Full and effective participation and inclusion in society
4. Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity
5. Equality of opportunity
6. Accessibility
7. Equality between men and women
8. Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities.

It is estimated that well over 150,000 students with disabilities are enrolled in Australian schools, with four in five students enrolled in mainstream schools - most in government schools (Australian Curriculum Assessment and Reporting Authority, 2012). Earlier data indicated that around two-third of these students have learning difficulties, two in five have social difficulties and two-thirds were unable to communicate well in broader society.

2.1 National Disability Insurance Scheme

Until recent times the medical model was used to define people with disabilities as patients or victims requiring help or treatment (Wagner et al., 2003). Today, the social model of disability considers the person (rather than their impairment) focusing on equity of access and independence. With this comes opportunities for planning and self-determination requiring the development of personal, social and financial skills to support optimum functioning for equitable participation in the community.

The *National Disability Insurance Scheme* (NDIS) was enacted into law by the Commonwealth of Australia in 2013. The NDIS has been established as a national social insurance scheme providing fairer support to individuals with severe and profound disabilities and their carers. The new scheme drew on the findings of the Productivity Commission report that recognised the previous system to be inequitable, fragmented, underfunded, inefficient, lacking in choice and unsustainable. Accordingly, they proposed:

The scheme should involve a common set of eligibility criteria, entitlements to individually tailored supports based on the same assessment process, certainty of funding based on need, genuine choice over how their needs were met (including choice of provider) and portability of entitlements across borders. There would be local area coordinators and disability support organisations to provide grass roots support. The insurance scheme would take a long-term view and have a strong incentive to fund cost effective early interventions, and collect data to monitor outcomes and ensure efficiency. (Productivity Commission, 2011, p.2)

As such, people with disabilities and/or their carers will have choice and decision making ability. Under the NDIS, they can choose their own providers, determine the appropriate package of services and direct funding to areas of individual need (self-directed funding). The NDIS recognises the importance of personal agency, reflecting the social model of disability that argues disability is not exclusively a personal medical impairment, but is also impacted by society's response to that impairment (Productivity Commission, 2011). For example, if society provides a ramp instead of stairs, a person in a wheelchair is no longer 'less able' to enter a building.



Under the NDIS, participants will receive monthly statements detailing the money received and spent. It is critical that those in control of this resource have the financial literacy to adequately and appropriately control it. However, this is often not the case. For many people with disabilities their financial literacy levels are low and access to appropriate training is ad hoc with significant implications for their futures as research showing low-income people with disabilities have poorer money management and save significantly less than those without disabilities (Lombe et al., 2008).

3 Financial literacy education for youth with disabilities

Managing one's finances is a key indicator of independence for all young people and is increasingly important for youth with disabilities as they learn to optimise management of NDIS budgets, other income from employment along with personal and household responsibilities and living expenses. However, financial education opportunities for people with disabilities have not always been equitable resulting in the financial literacy of many people with disabilities being suboptimal (Lombe et al., 2008).

The *Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA, 2008) was agreed by all Australian Education Ministers to set the direction of Australian primary and secondary education for the next ten years. Two key goals were proposed:

- ◆ Goal 1: Australian schooling promotes equity and excellence
- ◆ Goal 2: All young Australians become successful learners; confident and creative individuals; and active and informed citizens.

The Australian Curriculum (2016) offers all students with a disability the right to the same educational opportunities and choices “on the same basis with their peers through rigorous, meaningful and dignified learning programs”(2016). ‘Reasonable adjustments’ to the curriculum may be considered to ensure individual learning opportunities are equitable and commensurate with the student’s ability (with these determined in consultation between the school, carers and student, see Box 2).⁴

The Australian Curriculum recognises diversity amongst students with disabilities - that not all students with disabilities require adjustments, that adjustments for students with the same disability may be different, and that the requirement for an adjustment in one aspect of learning does not mean adjustments are required in other aspects of learning. It provides a process to ensure the learning needs of all students are met (see Box 3).

The commitment to an inclusive curriculum is reiterated across all education sectors but is difficult to implement (Australian Curriculum Assessment and Reporting Authority, 2012; Forlin et al., 2013). Additionally, while supported and promoted in state and national policy, curriculum modification tends to be left to individual teachers to be developed and implemented.

⁴ The *Children and Students with Disability Policy* in South Australia reiterates this with the aim to provide “access to an appropriate learning program that meets the needs and requirements of the Early Years Learning Framework and the Australian Curriculum” (Department for Education and Child Development, 2014, p.4). Courses, programs and services are to be designed to enable modifications so students with disabilities are granted the same opportunities to participate in all programs, including supplementary programs.

Box 2: Standards for students with disability

... Principals and schools can meet their obligations under the Standards by giving consideration to 'reasonable adjustments' to ensure that students with disability are provided with opportunities to participate in education and training on the same basis as students without disability. Before any adjustments are made, 'consultation' takes place between the school, student, and parents or carers.

What does 'on the same basis' mean?

- 'On the same basis' means that a student with disability should have access to the same opportunities and choices in their education that are available to a student without disability.
- 'On the same basis' means that students with disability are entitled to rigorous, relevant and engaging learning opportunities drawn from the Australian Curriculum and set in age-equivalent learning contexts.
- 'On the same basis' does not mean that every student has the same experience but that they are entitled to equitable opportunities and choices to access age-equivalent content from all learning areas of the Australian Curriculum.
- 'On the same basis' means that while all students will access age-equivalent content, the way in which they access it and the focus of their learning may vary according to their individual learning needs, strengths, goals and interests.

(Extracted from Australian Curriculum, 2016)

Box 3: Meeting diverse learning needs

Using the Australian Curriculum to meet the learning needs of all students

Teachers refer to the Australian Curriculum learning area content that aligns with their students' chronological age as the starting point in planning teaching and learning programs.



Teachers take account of the range of their students' current levels of learning, strengths, goals and interests, and personalise learning where necessary through adjustments to the teaching and learning program, according to individual learning need, by:

- drawing from learning area content at different levels along the Foundation to Year 10 sequence to personalise age-equivalent learning area content
- using the general capabilities and/or cross-curriculum priorities to adjust the learning focus of the age-equivalent learning area content
- aligning individual learning goals with age-equivalent learning area content



Teachers assess students' progress through the Australian Curriculum in relation to achievement standards. Some students' progress will be assessed in relation to their individual learning goals. Approaches to assessment and reporting will differ across the states and territories.

Similarly, despite the recognised importance of equity within Australian schools, students with special needs are generally overlooked in the *National Financial Literacy Strategy* (Australian Securities and Investments Commission, 2014) leaving them at risk of financial exclusion. This exclusion is particularly disturbing as many young people with disabilities lack the essential financial literacy skills considered necessary for basic functioning in today's society. The lack of these skills leaves them susceptible to financial mistakes and increases the risk of them being subject to dishonesty or fraud.

Teacher's aids or curriculum targeting financial literacy provide limited if any examples of financial literacy training for young people with disabilities, often meaning individual teachers are left to modify the mainstream curriculum on a case-by-case (or school-by-school) basis with the adapted curriculum not always subject to wider review or



evaluation. In effect, although some education is available in primary and secondary schools relating to financial literacy for young people with special needs, in many cases parents continue to play a key role in supporting and informally educating their children about money and teaching them about the value of money and responsible financial management (Mittapalli, 2009; The Money Advice Service, 2013).

The transitional phase when youth with disabilities transfer from school to the workforce poses many challenges. Critical to this transition is the ability to manage new financial responsibilities relevant to employment or other income sources and associated spending. It is in the transition to work where financial literacy skills and the ability to budget income against expenditure is tested directly.

4 Framework and approaches for special needs teaching

4.1 Universal design for learning framework

Universal design for learning (UDL) was initially developed by David Rose in the 1990s as a flexible approach to accommodate individual learning differences. As such it is a valuable framework for teaching young people with disabilities. This framework recommends designing curriculum that provides multiple means of representation, action and expression and engagement (CAST, 2011; Forlin et al., 2013). These are described in brief in the sections below.

4.1.1 Multiple means of representation

Learners differ in how they perceive and understand information. The use of different representation (text, visual and auditory) not only serves to support those who learn in different ways but facilitates learning as it enhances connections between concepts (CAST, 2011). UDL encourages the use of different modalities (vision, hearing and touch) and formats that are adjustable to accommodate for example, poor vision (enlarged text) or hearing (increased volume). Language, expression and symbols may be shared by some learners and incomprehensible to others. Therefore, UDL encourages the use of alternate representations or explanations of these to ensure clarity and understanding.

Comprehension of learning content requires the transformation of accessible information to usable knowledge and is dependent on active information processing skills that integrates existing and new information to build knowledge. Visual imagery and concept anchoring can be used to cognitively link new information to previously established concepts. Critically, mnemonics, practice and tools such as checklists and sticky notes can support the generalization of learning to new contexts.

4.1.2 Multiple means of action and expression

Traditional learning modalities employing texts and reading can create barriers to learning for some (CAST, 2011). The UDL framework encourages the incorporation of different navigation pathways through learning and practicing tasks and activities. Learners differ in how they optimally express and communicate ideas, some excel at conversation and struggle with writing the same information, others may be skilled at drawing concepts.

Options should be provided for learning through physical action, expression and communication and executive function. These approaches provide alternate ways for learners to demonstrate

what they know. This can include the use of assistive technologies, although it is important that the new technologies don't add a layer of additional complexity to learning tasks.

Executive 'high-level' functions allow for the development and monitoring of long-term plans, strategies and goals. However, executive functions can be compromised when 'low-level' skills are not automatic and require additional cognitive processing capacity (thereby reducing that capacity available for executive functions). It is important to provide support (or scaffolds) for both high- and low-level functioning to reduce the cognitive burden of each. This involves providing appropriate prompts to estimate effort, as well as models and guides for the process of goal setting. In addition, prompts (or 'speed bumps') are used to encourage students to stop and think at critical stages of the process before progressing. Tools and checklists can also be used to support learner organisation.

Appropriate, timely and clear assessment and feedback supports the student to understand their progress, so they change what isn't working and build on what is. Importantly, developing skills in self-monitoring and reflection mean these can be used to guide individual learning.

4.1.3 Multiple means of engagement

There is no one way to engage all learners with some responding to routine and others to spontaneity (CAST, 2011). It is therefore important to use multiple methods for engaging and maintaining learner interest. Options and choice should be available for the type and level of task challenges, motivations and rewards. Activities need to be authentic, relevant and meaningful to ensure learner engagement. This can involve personalising and contextualising learning activities for the learner. Importantly, activities need to be appropriate for age, ability, gender, culture and ethnic groups, as well as socially and culturally relevant.

Sustaining effort and persistent concentration are key elements of learning. To develop focus and concentration skills it is useful to include reminders of the specific learning goals and their value in learning exercises. Learners often respond well to an emphasis on formative goals such as process, effort and improvement, rather than competition and long-term evaluation. In addition, peer-to-peer mentoring can be a valuable tool to increase support and learning resources for students. This can be delivered via group work and is a valuable learning tool for both the recipient of the support and the student providing it.

Learners need to understand and manage their own internal (intrinsic) and external (extrinsic) motivations. This assists in the setting of achievable personal goals and in controlling reactions such as frustration and anxiety when working toward goals.

4.2 Learning methods

4.2.1 Project- and problem-based learning

Project- and problem-based learning (both referred to as PBL) approaches engage students in solving open-ended real world problems (Edutopia, 2015; Krajcik & Blumenfeld, 2006). They share a number of characteristics, both are focused on open-ended questions or tasks and provide an authentic real world experience which includes applying skills to tasks. They put an emphasis on independent thought and action, and are often of longer duration than most learning tasks or assignments. The differences between these approaches are presented in Table 2.



Table 2: Differences between project- and problem-based learning

Project-based learning	Problem-based learning
Often multi-subject	More often single-subject, but can be multi
May be lengthy (weeks or months)	Tend to be shorter (but can be lengthy)
Follows general, variously-named steps	Classically follows specific traditionally prescribed steps
Includes the creation of a product or performance	The 'product' may be tangible OR a proposed solution, expressed in writing or in a presentation
May use scenarios but often involves real-world, fully authentic tasks and settings	Often uses case studies or fictitious scenarios as 'ill-structured problems'

Source: *Edutopia* (2015)

Originally used in medical education problem-based learning is now being used in a range of primary, secondary and tertiary settings (Belland, Glazewski, & Ertmer, 2009). This approach is task- (rather than grade-) focused and usually involves group work. Research has found that engagement in problem-based learning can increase confidence and motivation and lead to significant improvements in academic, social and personal development in special needs students (Kincaid & Jackson, 2006). When these students are given a problem and the tools to work to solve it they can be motivated to take on leadership roles, engage in the community, gain social skills, develop friendships and compassion for less able students. Delivered properly and with appropriate support these students can develop self-esteem, stay engaged by the learning and be empowered by the task and the outcome (Belland, Ertmer, & Simons, 2006).

Project-based learning has also been successfully employed in teaching students with disabilities to grow a community garden, feed the homeless, create and deliver brochures for leisure activities and educating other teachers and staff about autism (Downs, 2015).

4.2.2 In-vivo learning

In-vivo learning is a way to support independence and self-sufficiency through meaningful participation and learning in a community or simulated setting (Herrygers, Clark, Crosland, & Deschenes, 2010). It is based on the understanding that empowering someone to develop the skills to take control over their life and become self-sufficient is more likely to result in them achieving their goals and receiving positive feedback. Role-playing and mock situations can be used to build confidence in applying skills in new settings. In addition, in-vivo learning often involves the development of other skills required in a real-life setting such as social skills and problem solving.

In-vivo teaching can improve outcomes for special needs students by providing opportunities to learn and practice skills in simulated settings or natural situations (Herrygers et al., 2010). This teaching style is used for practical training such as for job interviews, social skills, learning bank skills, social problem solving, and participating in community life.

4.2.3 Differentiated instruction

Differentiated instruction accommodates the diverse academic needs of students while aiming to achieve equivalent learning outcomes. As students have a range of different learning styles it is therefore best, wherever possible, to target learning activities to suit individuals. Accordingly, a mix of visual, audio and kinaesthetic techniques are encouraged. Differentiated instruction is most successful when the teacher understands the learning style and preferences of their individual students and then focuses on their strengths by modifying the learning content (what they learn), process (how they learn) and product (how they demonstrate they learn) (Bender,

2012). Table 3 presents some differences in the application of low and high differentiation learning techniques.

Table 3: Difference between low and high differentiation

Low differentiation	High differentiation
Choice of books	Tiered activities and labs
Homework options	Tiered products
Varied journal prompts	Alternative assessments
Whole-to-part/part-to-whole explanations	Lectures coupled with graphic organisers
Varied computer programs	Multiple intelligence options
Varied supplementary programs	Tiered centres
Use of collaboration, independence and cooperation	Literature circles
Open-ended activities	Stations
Negotiated criteria	Choice boards
Games to practice mastery of information and skill	Problem-based learning
Multiple level questions	Graduated rubrics

Source: Reproduced from Dixon and Zannu (2012)

Key learning processes include activating the learning relating to a new topic to things previously learned. This approach also encourages explanations about the purpose of the material and what can be achieved once the material is learnt. Critically, assessment should not be limited to traditional methods such as tests, essays and exams. Assessment methods can access the same multi-modal approaches as the learning, incorporating oral responses, models, drawing, portfolios and performances to determine levels of learning with Rubrics used to assess learning achievement⁵.

Assistive technology can be a valuable tool to support students with special needs. The computer has transformed the classroom for all students and provides access options and new tools for youth with disabilities. Audio books are invaluable for those with reading difficulties along with voice recognition software, while apps provide teachers with constantly new and evolving approaches to learning. Collaborative activities provide avenues for everyone to contribute and an opportunity to learn from and with peers.

Kronowitz (2012) refers to Gardner's theory of multiple intelligences as providing a framework for understanding and working with student learning differences. Gardner's seven different 'intelligences' are:

- ◆ **Visual/spatial** students learn best through spatial relationships and through visual aids.
- ◆ **Verbal/linguistic** students learn best via language including reading, writing, listening and speaking.
- ◆ **Mathematical/logical** students think logically, analytically and abstractly and excel in problem solving and with numbers.
- ◆ **Bodily/kinesthetic** students tend to be coordinated and learn best when physically engaged in games, role-play, and building.

⁵ Source: ("Differentiation techniques for special needs students,")



- ◆ **Musical /Rhythmic** students learn best through musical expression such as songs, instruments, rhythms and patterns.
- ◆ **Intrapersonal** students are reflective and introspective and learn through values and beliefs.
- ◆ **Interpersonal** students learn best in groups are are social and outgoing.
- ◆ **Naturalist** students recognise patterns in the natural world and learn through visual discrimination and classification.

5 Developing a financial literacy program for youth with disabilities

The OECD International Network on Financial Education (OECD/INFE, 2015) has prepared a framework on financial literacy covering elements required for the full and safe economic and financial participation of youth aged 15 to 18 years. This framework has been designed to be flexible and address generic core competencies at an age where most youth are transitioning to work and engaging with financial decisions on a daily basis. The framework assumes the existence of foundational skills in numeracy and reading which are the basic building blocks for financial literacy. If these are not in place, they suggest taking a life-stage approach focusing on developing financial skills as the needs arise.

A financial literacy program for youth with disabilities needs to draw on standards developed for their peers, while recognising their differential capability level - both as individuals and as a group. Figure 1 (page 3) presented a 'high-level' overview of financial literacy core competencies that have been developed for international use (Conroy & O'Leary, 2005). However, as previously noted much of this could be considered too advanced for most young people with disabilities transitioning from school to work. Similarly the baseline proficiency level (shown in Table 1, page 4) assumes a level of familiarity with currency that may not exist for this cohort. Therefore Table 4 presents foundational outcomes of particular importance to this cohort as they transition from school to the community or work. These relate to two of the four identified core competencies content areas - money and transactions, and planning and managing finances – along with the relevant key financial literacy topics (OECD, 2013; OECD/INFE, 2015).

Table 4: Key financial literacy competencies for youth with disabilities

Competency categories	Competencies
Money	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Aware of the common forms of money ◆ Understand that cash and coins have a financial value ◆ Aware money is not unlimited ◆ Aware cash can be stored in various ways (including banks) ◆ Aware banks may charge fees ◆ Understand being lent money is different to being given it
Confidence, motivation and attitudes	<ul style="list-style-type: none"> ◆ Confident to receive money in cash and other forms
Skills and behaviour	<ul style="list-style-type: none"> ◆ Can recognise and count money in own currency ◆ Takes care of cash and valuable items in their possession
Income	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Aware take home pay is less than the full amount due to deductions ◆ Understand income may vary at each pay
Payments and purchases	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Aware of different ways of paying ◆ Understand that money can be exchanged for goods and services ◆ Aware once spent, money is no longer available to them for other purchases ◆ Aware money needs to be added to a prepaid card before use ◆ Aware debit cards are linked to bank accounts ◆ Aware credit cards are a form of loan
Confidence, motivation and attitudes	<ul style="list-style-type: none"> ◆ Conscious of own spending habits and use of money ◆ Motivated to shop around for a good deal ◆ Confident to speak up if received the wrong change or are charged wrong amount ◆ Confident to handle simple transactions within a shop
Skills and behaviour	<ul style="list-style-type: none"> ◆ Can make simple choices across similar products based on price and quantity ◆ Can use mental arithmetic to calculate the final price of a small selection of items ◆ Offers correct money when buying in cash, or offers larger amount & checks change ◆ Conducts sales and purchases in an honest and open manner
Prices	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Has a realistic knowledge of the cost of basic items (including food) ◆ Knows prices may vary between shops
Financial records	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Understands that documents, bills, receipts and guarantees may be important (and may have legal implications) ◆ Understands signing a contract may make them legally obliged to pay for something and there may be consequences if they don't
Budgeting	
Skills and behaviour	<ul style="list-style-type: none"> ◆ Lives within their means ◆ Able to select and use simple budgeting tools
Managing income and expenditure	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Knows the difference between needs and wants ◆ Understands the need to prioritise certain expenses when income is limited
Skills and behaviour	<ul style="list-style-type: none"> ◆ Can successfully avoid overspending in everyday situations
Saving	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Aware of the benefits of saving, & that you may need to save to buy high cost items
Confidence, motivation and attitudes	<ul style="list-style-type: none"> ◆ Motivated to save for a particular item
Credit	
Awareness, knowledge and understanding	<ul style="list-style-type: none"> ◆ Understands that if they borrow money they have a responsibility to repay it
Skills and behaviour	<ul style="list-style-type: none"> ◆ Pays anything they owe on time
Scams and fraud	
Skills and behaviour	<ul style="list-style-type: none"> ◆ Takes care to keep personal data, passwords and money safe

Source: Modified from OECD/INFE (2015)



5.1 Core competencies

Numeracy is the critical core skill for understanding and using money and financial services (National Adult Literacy Agency, 2015). At their basic level, addition and subtraction (multiplication and division) are the foundational numeracy core competencies required in financial literacy education. While technological advances mean that most people have calculators or phones that will readily conduct simple arithmetic, reliance on this technology without underpinning it with 'common sense' may result in incorrect results being accepted. For example, if a calculator is used and an incorrect number is entered, the output can be significantly flawed. Without a basic understanding of maths this error can go unnoticed.

Communication, community living, financial management, independent living, interpersonal skills, literacy and personal development have been identified as critical learning outcomes for students leaving special schools (Dowrick, 2004). Thirteen key indicators (many of which align with those presented in Table 4) were identified as contributing positively to financial management outcomes, these include:

1. Can name all coins
2. Recognises coins and notes
3. Can use small amounts of money
4. When spending money, is aware when change is needed
5. Uses correct social procedures when buying
6. Knows who manages money
7. Pays own bills
8. Demonstrates awareness of pension and other incomes
9. Completes all types of banking
10. Uses an ATM
11. Uses a debit or credit card
12. Understands the purpose of banks
13. Is able to locate banking services

Building confidence is key to effective learning, with confidence coming from experience. Understanding the interests of the learner can help determine the specific resources to be employed. For example, if students are interested in shopping then resources can include photos of shop windows, sale signs, brochures, receipts and copies of labels (National Adult Literacy Agency, 2015). Understanding what students feel about money is also important. This is particularly relevant when learners have had a negative experience or perception about money. Helping them understand that saving is 'smart' has been found to be an effective strategy to build enthusiasm and confidence (National Adult Literacy Agency, 2015).

Teaching approaches for young people with disabilities should be engaging, hands-on, recognise individual differences, be discrete in purview and outcome focused (Mittapalli, 2009; The Money Advice Service, 2013). Moreover, the following elements should be included in any financial literacy curriculum for young people with disabilities:

- ◆ Be fun, current, interesting and creative
- ◆ Be easy to relate to
- ◆ Be 'real'
- ◆ Be culturally sensitive
- ◆ Be clear, use plain English, symbols and pictures
- ◆ Recap
- ◆ Contain consistent standards
- ◆ Include benefit planning.

The National Disability Institute (2016) posed some fundamental and critical questions to address in the development of the right financial literacy curriculum:

- ◆ How much time is available to teach the information?
- ◆ Is the curriculum aligned with the appropriate standards?
- ◆ Does the program offer flexibility?
- ◆ Is the curriculum copyrighted? Can it be adapted?

5.1.1 Recognising and counting money

Recognising and counting money is a core foundational skill for all financial transactions and critical for independent living. It is important to use real money when working with special needs students as this will actively and authentically engage all their senses in the learning process. Webster (2014) suggests stages for this learning depending on the students existing level and experience.

1. **Discrete trial training** is conducted one-on-one and in this case involves asking for a coin and providing positive reinforcement or reward for a correct response and gentle correction for a wrong response.
2. **Coin sorting** is a slightly advanced approach whereby coins of the same denomination are placed in separate cups or mats⁶. There are a number of apps that facilitate 'virtual' sorting.
3. **Matching coins**⁷ involves students matching the value of the coins to a predetermined value.

Counting money requires basic counting skills, noting the absence of 1¢ and 2¢ pieces in Australian coinage does add to the complexity and abstraction of the learning task. Counting tasks⁸ include:

- ◆ **Number recognition** including the recognition of the ten digits and understanding their place (ones, tens, hundreds).
- ◆ **Skip counting** in financial literacy focuses on counting in 5's, 10's and 100's.
- ◆ **Operations** such as addition and subtraction are useful to aid understanding about how a bill or bank statement is calculated (even if the maths task itself is too difficult).

Students should understand that the value of coins is not determined by the size of the coin (a 50 cent piece is not worth more than one dollar) or the number of coins (ten 5 cent pieces are not worth more than a dollar) (Victoria State Government, 2014).

5.1.2 Valuing money

Developing a program on valuing money should include elements of decision-making about the use (spending and saving) of money. This includes weighing up short and long-term goals and planning on how and when to realistically achieve the goals. Wise money management means

⁶ See <http://mrshodfoogeandherkindergartenkids.blogspot.com.au/2013/02/money-sorting-mat.html>

⁷ See <http://www.education.com/activity/article/counting-money/> and <http://www.notimeforflashcards.com/2015/08/money-math-tray.html>

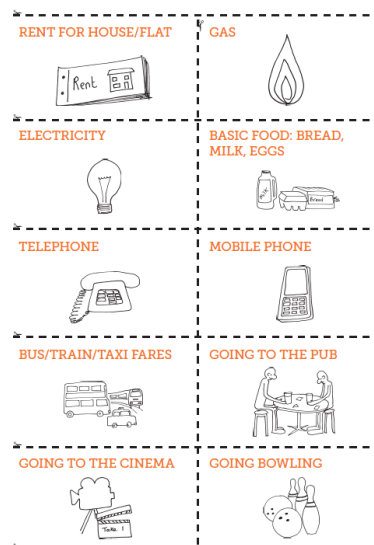
⁸ This can be supported through the use of a Hundred's chart, see <http://specialed.about.com/od/MathematicsforSpecialEducation/ss/Hundred-Charts-Teach-Skip-Counting-Place-Value-And-Multiplication.htm>



spending on necessities before spending on discretionary items. A well thought-out budget helps individuals ensure money is available for the important items.

Needs are basic things required for daily living, such as food, shelter and clothing. Wants are things we would like to have, but are not necessary for daily living. Understanding the difference between needs and wants is critical for budgeting and appropriately allocating income. Discussing needs and wants in the classroom can be done in a variety of ways. Cards with a range of spending options can be prepared and sorted into needs and wants. When this is done in groups it can lead to interesting discussions about what may be a need for some and a want for others (The Money Advice Service, 2013).

Budgeting involves understanding your fortnightly income and expenses. Where possible the aim is to have a little left over every fortnight to save. Savings can then be used to achieve both short-term and long-term goals.



5.1.3 Safety with money

Techniques to improve the ability of young people with disabilities to transact safely with money is critical for independence. Where possible these skills include having enough money when purchasing, being able to count out their money and give the right amount, and being able to check the change to determine they have been given the correct change. For some young people with disabilities these skills will remain limited. However, as previously mentioned, lack of skills in these areas may lead to mistakes which in turn leads to reduced confidence in dealing with financial transactions. Therefore, developing and supporting confidence building is critical for this cohort.

Some techniques currently employed for teaching about the use of cash include the *Next Dollar Up* program⁹ which has been designed to limit exposure to financial risk and increase safety when purchasing. Students are taught to round up to the next dollar when making purchases.¹⁰ With this skill they are able to develop independence and confidence when purchasing while limiting potential loss from error and unscrupulous sales people.

Increasingly, financial transactions are taking place without use of physical money (notes and coins). However, for people with disabilities, credit and debit cards, online shopping and internet banking can be difficult to understand as they are 'abstract' forms of money – and abstract concepts have been difficult to grasp for people with a learning disability. Accordingly, these transactions are not always readily understood as the same as using cash. Existing financial skills often still apply, but the use of debit cards and online banking also require different skill

⁹ See <http://www.autismclassroomresources.com/next-dollar-up-strategy-resources-and/> and <http://www.friendshipcircle.org/apps/browse/next-dollar-up/>

¹⁰ This technique is described here: http://opi.mt.gov/users/dougdoty/weblog/7c238/Next_Dollar_Up_good_description_of_teaching_this_skill.html

sets. Benefits of using debit cards¹¹ can outweigh the disadvantages when debit accounts are properly managed. For example, the value contained in the debit account can be constrained by guardians, as can the transaction limit. And of benefit to the young person – they can make purchases without worry about money handling or managing correct change.

6 Assessment

Currently, assessment of special needs students in Australia focuses more on attitudes, skills and competencies than the curriculum. Although curriculum adjustments and differentiation for these students is supported in policy, it is left to be applied by the teacher (Australian Curriculum Assessment and Reporting Authority, 2012). Inclusive assessment seeks to provide an assessment environment where policy and procedure in mainstream settings support and promote learning, participation and inclusion of *all* students (European Agency for Special Needs and Inclusive Education, 2015). The following outline indicators have been suggested:

- ◆ **Pupils** are engaged in self-assessment, supported to develop realistic skills and targets with teacher feedback that is appropriate and motivating.
- ◆ **Parents** are engaged in and have the opportunity to influence the assessment processes, they can contribute to the development, implementation and evaluation of their child, and the role of the parent in supporting their child should be recognised by the teacher and school.
- ◆ **Teachers** are responsible for and use assessment to improve learning for students and themselves. Assessment is understood to be used to identify learning progress and determine next learning steps (rather than as indicators against class or external benchmarks). Assessment should be meaningful for students and teachers. It should consider a broader holistic learning contexts such as progress in academic, behavioural, emotional and social learning. Assessment requires a team approach including pupils, parents, teachers, peers, support staff and others.
- ◆ **Schools** provide leadership for inclusive assessment, and ensuring assessment fulfils multiple requirements including learning and monitoring and evaluation. Encourage, organise and support a team approach to assessment and provide opportunity for teachers to implement the assessment and incorporate necessary elements in daily teaching practice.
- ◆ **Multidisciplinary assessment teams** support teachers to promote learning and inclusion for all students. Work with all students. They give consideration to the entire learning environment and that in which the assessment occurs. They share best-practice examples with others.
- ◆ **Assessment policy** is designed to support all students specifically those vulnerable to exclusion and under-achievement. Policy developed for special education is integrated into usual policies. Assessments should be fit-for-purpose and subject to ongoing review, they detail roles and responsibilities for teachers, schools and multi-disciplinary assessment teams, and they provide information about the support required to meet the responsibilities. They should follow the principles of universal design to ensure flexibility and to cater for diverse needs.

¹¹ As credit cards are loans these are not discussed.



- ◆ **Educational legislation** is designed to be inclusive and integrated with general education legislation. It should ensure the needs of individuals are met and that students and carers are engaged in the process.

Rubrics are often used as a tool to support assessment and understanding learning in students with special needs. They are standardised and easier to assess for the teacher and understand for the student. They require a clear understanding of the course objectives. Rubrics consist of four parts (Busch, 2013):

- ◆ **Task:** which describes the mastery of a task which can be specific (indicating completion of an assignment) or broad (indicating an understanding of a task).
- ◆ **Scale:** provides a measure of how the task has been done. Usually this does not require more than four levels such as 'needs help', 'competent', 'good' and 'excellent'.
- ◆ **Dimension:** is the label for specific topic or skills being assessed.
- ◆ **Description:** is the criteria that must be mastered to achieve the highest level of performance

Rubrics may be analytic (working on each criterion separately) or holistic (which looks at all criteria and assesses overall quality). Analytic rubrics are most suitable for classroom applications as they enable students to focus on the specific achievement of a task (Brookhart, 2013). They clarify for students what they should achieve in their learning and encourage teachers to focus on the critical elements of their teaching and assessment¹².

¹² A rubric generator and examples can be found http://www.teach-nology.com/web_tools/rubrics/maths/

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Appendix 1. Financial literacy resources

Resource	Source
SA Financial Literacy Curriculum resources	https://www.commbank.com.au/about-us/in-the-community/understanding-money/commonwealth-bank-foundation/financial-literacy-teaching-resources/sa.html
<i>Cents and Sensibility. A guide to money management for people with disabilities.</i>	http://www.nasddd.org/uploads/documents/Financial_Education_Booklet.pdf
Edutopia	http://www.edutopia.org/financial-literacy-resources-guide
Finance in the Classroom	http://financeintheclassroom.org/passport/matrix.shtml
JumpStart financial smarts for students	http://jumpstart.org/jumpstart-clearinghouse.html
Making Cents. A tutor's guide to financial literacy	https://www.nala.ie/resources/making-cents-tutors-guide-financial-literacy
Money Instructor	http://www.moneyinstructor.com/
MoneySmart	https://www.moneysmart.gov.au/life-events-and-you/under-25s http://www.l-ldesign.com.au/client/asic/#/1/
National Education Association – Resources for Teaching Financial Literacy	http://www.nea.org/tools/lessons/resources-for-teaching-financial-literacy.html
Practical money skills for life - Special needs	http://practicalmoneyskills.com/ https://www.practicalmoneyskills.com/foreducators/lesson_plans/special.php
Real Money Real World	http://realmoneyrealworld.osu.edu/
The mint	http://www.themint.org/kids/



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