



Teaching and using money

by Ian Cook – Down Syndrome Victoria's Education Consultant

"Well really, I'm not so concerned about his general maths. I just want him to be able to do things like offer the correct amount of money and know if he has the correct change, to be able to follow the train timetable etc."

I have heard the above quite often. It is then that I have to explain that 'pure' number skills precede and are the base for our 'applied' skills. How can a person learn to tell the time if they cannot count to or recognise the numerals 1 to 12? It is the same with money. Money skills follow on from 'pure' number skills, and therein lies the first hurdle for some students not good at lateral transfer of skills. For example, because a student understands that $5 + 5 = 10$, it does not necessarily follow that he/she will immediately understand that 5 cents + 5 cents = 10 cents.

Considerations and questions:

- What is really needed in terms of money skills in today's society?
- What skills do others use daily?
- Does/can the supermarket checkout operator count back your change to you? Does he/she need to do this given today's registers and displays?
- In some supermarkets you now do your own checkouts – then just swipe your card.
- Should we just be teaching students how to use ATM's and credit/debit cards?
- What about the reading and checking of monthly statements?

Considering all the points above, it is important for parents and teachers to think about what they want the child to be able to do and what is realistic for the child to achieve.

In my experience, school-age children with Down syndrome learn to manage money at different times and at different levels.

Later in life (post school) when money becomes more meaningful (when you have to buy your transport ticket, do your own shopping for food and clothes, pay for social events, buy presents, etc) skills can improve significantly. For this reason you need to look at which money skills are required in the context of a particular person's life. List and prioritise these skills. Remember sometimes students are only ready to learn these skills post school and that learning is an ongoing process.

Stages and sequence of learning:

- Understanding the function of money. That is, that money is exchanged for goods. Playing shop, going shopping can help.
- Sorting – of like coins and notes.
- Terminology – money, coins, cents, dollars, notes, buy, sell, supermarket, checkout, change, etc.
- Recognition.
- Match – same value.
- Select – "Show me 20 cents".
- Name – "How much is this?"
- Comparison, order and sequence
 - placing coins/notes in ascending and descending order.
 - understanding that $5c < 10c$, $50c > 20c$, etc.
- Equivalence – two 5 cents = 10c, two 20c & one 10c = 50c.
- Manipulation
 - addition – like coins first, then unlike – check total of shopping list – calculator.
 - subtraction to calculate change.

Some students find it difficult to proceed past certain levels of this learning sequence at any given time in their schooling. Some find the skills involved in 'equivalence' beyond them, while others may learn to add. I have had very few students who have been able to calculate change – especially at the register. Do you? And is this really a necessary skill today?

Teaching strategies:

As stated earlier, students need to understand the basic early rules of the number system such as rote counting, limiting, being able to count on and the rule of cardinality (last number tells us how many altogether in the set) prior to the teaching of money.

- Students will need to understand 'place value' as in 10's and 1's.
- Students need to be able to count by 2's, 5's and 10's.
- I use real money when teaching – I don't want to have to re-teach later.
- Begin by going through the stages of function, terminology and sorting.
- Then go through the stages from recognition onwards beginning with 5c and 10c – you may not get to equivalence.
- I am not fazed by students reading the value on the coin – don't you do that when you are overseas?
- Then one by one add another coin (cents) beginning at recognition.
- Then move to dollars – coins then notes.
- Teach students to read (and write) the decimal notation.
- Set up a classroom shop – play shopping. You can restrict prices to those coins/notes you have taught or which are understood.
- Use 'junk mail' catalogues – students love shopping from these.
- Play money games – just be sure you have covered the concepts involved or that you can modify the rules.
- Use a visual 'money line' so students can see where one amount is in relation to another.
- Use resources such as those listed below.

Levels of achievement:

- Matching – refers to the students having a card in his/her wallet which allows them to visually match numbers (dollar amounts) to a chart of gold coins (\$2) and purple notes (\$5) – see Clarke Rd. 'Money Aid' program.
- One dollar more – students read the dollar amount, such as \$6 for \$6.45, add \$1 more, and know they have to give the checkout person \$7 or more and wait for change – see Clarke Rd. 'Double M' program.
- Being able to give exact money and calculate change – see Clarke Rd. 'Triple M' program.

Note: some students cannot cope with cents and mixed monies. If this is so, I would recommend that you maintain your focus on the dollars only – see Matching or One Dollar More.

Everyday usage:

At different times people will move onto the everyday social aspects of money such as:

- Pocket money – this is a motivating introduction to function.
- Budgeting.
- Bank accounts, cheque books.
- How to behave in shops – queuing, behaviour at the checkout.
- ATMs.
- Ticketing agencies.
- The 'social skills' of using money in the community are discussed in the reference "Maths and Money" (see below).

Some of the difficulties I encounter with our monetary system are:

- We have no one cent coins to allow us to relate this to the first coin – 5c.
- Not all cents are coins and not all dollars are notes.
- Size order does not correspond to value.

Remember to establish some form of measurement of progress – a simple checklist, the teaching sequence in the Dr. John Munro series or the money section of the Diagnostic Maths Tasks.

Resources:

"Maths and Money" – Down Syndrome Association of South Australia (DSASA)

"Clarke Rd. Money Program" – Clarke Road School, Hornsby, NSW

"Practical Teaching Strategies in Numeracy for Children with Learning Difficulties" – Dr. John Munro – available from Down Syndrome Victoria

"Down Syndrome – issues and information. Number skills Development for Children with Down Syndrome (5-11 years)" – G. Bird and S. Buckley – a publication of the Down Syndrome Educational Trust

"Money Books 1, 2, & 3"

"Money Matters Books 1, 2, 3, 4"

"Money Bingo"

"Money Match"

"My Financial Skills" (advanced)

} all available from DSASA

Transaction (can be used at various levels up to teaching equivalence)

Piggybank (early recognition)

First hand shopping experiences with parents

Computer programs:

<http://www.beaconlearningcenter.com/WebLessons/LetsGoShopping/default.htm>www.smartmaths.org