CURRICULUM, PEDAGOGY AND BEYOND





Maths for All: Inclusive Strategies for learners with special needs

Presented by Sumati Randhawa

Bulleen Heights School

Acknowledgement to the country

We would like to begin by acknowledging the **Traditional Owners of the** land on which we meet today, the Wurundjeri People of the Kulin Nation and pay our respects to Elders past and present.



Complete the Survey on the event app

- You can access that by tapping "now on" button at the bottom of the app. Select the session A:01 Maths for all Inclusive strategies for learners with special needs.
- Complete the survey
- By completing the survey, you will go in the draw to win \$100 MAV shop voucher.

Find your Buddy!!

• Find your matching equation/answer

Now discuss with your partner:

- Where are you from? city, school
- What age group do you teach?
- An experience you had recently about a student who had learning difficulty in mathematics?





Learning Intention To be able to implement various maths strategies to support individuals in their learning



Success Criteria I can implement various maths strategies to help support individuals in their learning



Key Take aways

1. Collaborating to make learning more personalised for students with diverse learning needs

2.Using technology and visuals as a support in Mathematics, e.g. Video Modelling, Colourful Semantics and social stories

3. Learning how to implement practical and real-life lessons in the community

In this session, I will be discussing my case study on using money skills in the community with a Non-Verbal **Student with ASD-pre** foundation level and how I gathered information on his learning experience.



Personalised Learning



 Having customised lessons that aims for individual students' strengths, needs, skills and interests.



Collaboration



 The success of learning is the result of collaborative efforts of educational professionals and the parents of the individual.

Questions for Simone

Hi Simone ,

As part of my inquiry project, I am working with Callum to get some feedback of his understanding on using basic money skills when purchasing an item in the community?

I was wondering if you would be able to answer the following questions to help me put some strategies in place and compare the answers with my colleagues?

1. What is the most important skill the student should be **taught** when purchasing an item? ITEMS HAVE VALUE

2. As a parent what do you think is the most important skill for Callum to have when purchasing an item? UNDERSTANDING THE UNLUE OF MONEY

As a speech Therapist what do you think is the most important skill for a nonverbal student to have when in the community when purchasing an item? This would also depend on cognition and not communication skills a lone so not cut and dry. These need to be assessed specifically Callum - I would work on this more from an engagement and quality of life perspective to be So I would work on programming the items into his device or deciding what he wants to cook, create a visual shopping list and have visuals of the money he needs to match to provide the shop keeper. He is great at matching. 2. According to your expertise, what is the most important skill the student should be taught when purchasing an item? again this is really broad and not cut and dry as it is multi faceted. This is not a Speech Pathology specific question. I would say at a functional and daily living skill level not related to money that it would be about choice and control deciding what he wants to buy, finding it at the shop taking it and giving it to the shop keeper and being supported to engage in communication and interaction with a amilar person. ST- School 1. As a speech Therapist what do you think is the most important skill for a nonverbal student to have when in the community when purchasing an item? I think the most important skill for purchasing items in the community is initiation. The student must have the skills to locate a communication partner (shopkeeper) and know how to begin the interaction (greet, request) to make a purchase regardless of if it is a non-verbal exchange or requires language (AAC device) to support. Appropriate initiation also includes interpreting cues from the environment about how to reach the communication partner e.g. join a line, locating the service desk

2. According to your expertise, what is the most important skill the student should be **taught** when purchasing an item?

It is very important that students understand the concept of transferring ownership/exchange (mine/not mine). Students must understand that items being purchased are only theirs after an exchange of money. Understanding this concept includes being able to wait and the cause and effect of exchanging money for items.

How I started the intervention...

LEARNING INTENTION

Lesson 1 To recognise Australian currency, name notes and coins (VCMNA024)

SUCCESS CRITERIA

•

- I can match coins and notes to their monetary value. For example, matching a \$10 note with a card that says '\$10'
- I can identify coins and notes. For example,
 "Which one is the \$5 note?'

SUMMARY

In this lesson Callum was engaged. He required verbal prompting to match the money with the relevant cards, however it was clear after this session that Callum was able to match the coins/notes independently.

- Lesson 2 To hand over the correct amount of money in a classroom shop game. (VCMNA075)
- I can hand the correct amount of money as shown on the price tag to buy an item from two selections. For example, there is \$5 and \$10 note. Callum will choose correct value as shown on the price tag?
- I can wait for my turn.

Callum watched other students using money to buy items. He needed verbal and visual prompting to wait for his turn and then gave the correct amount as shown on the price tag. He was engaged in this lesson for 15 minutes. To gain familiarity and confidence we played the shop game few times before our excursion in the community.





Evidence

Skills I see this student applying



Knowledge I see this student representing



Ideas for how I can respond in my teaching



Assumptions I made about this student's learning









What is the value of pi?

Visuals are very important for our students-Proloquo2Go



Bulleen Heights School



O

Bulleen Heights School

Examples

- Matching
- How much
- How many
- What time?
- Heavy and light
- Counting on
- Days of the week
- Big and small

Community access

• Practical learning and life lessons

Tools:

- Video Modelling
- Social Stories/Visual Cards

Video Modelling

- Involves teaching a student a new skill through watching a short video.
- The student of focus is videoed performing an action or skill;
- Includes social skills like greetings, putting up their hand in class or sitting and eating their lunch.

What did YOU notice in the video?

Video Modelling

- Short and sweet
- Includes a voiceover of the actions being performed
- Includes the particular skill(s) written on the screen
- Must include positive reinforcement at the end (applause)

In pairs, discuss where in your teaching you can use Video Modelling to help support your student's understanding learning?

Social Stories/Cards/Strips

Callum to walk to buy packet of chips and hand the money to the cashier

What other mathematical concepts could be used to create social stories?

Colourful Semantics

ANY QUESTIONS ??

What you learned:

1. How to collaborate to make learning more personalised for students with diverse learning needs

2. How to incorporate technology and visuals as a support in Mathematics, e.g. Video Modelling, Colourful Semantics and social stories

3. How to implement practical and real-life lessons in the community

Complete the Survey on the event app

- You can access that by tapping "now on" button at the bottom of the app. Select the session A:01 Maths for all Inclusive strategies for learners with special needs.
- Complete the survey
- By completing the survey, you will go in the draw to win \$100 MAV shop voucher.