



#### **AVETRA Session**

 TECHNOLOGIES FOR IMPROVED TEACHING AND LEARNING OUTCOMES FOR APPRENTICES AND TRAINEES IN TURBULENT TIMES.



#### **Presenters**

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# Definition of a Learning Disability

provided by Carvallo, Foley, Saunders and Bowman (2005) and draws from the United States National Joint Committee for Learning Disabilities as:

A general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan. Problems in self regulatory behaviours, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability (cited in NCVER 2002).



#### **Session Overview**

- Review of the research at Polytechnic West and Students Completions Project at VU
- Trying the technologies
- Testing technologies in training and research?

# Polytechnic West Research Review

- Purpose
- Methodology
- Findings
- Summary and conclusions



### Research Purpose

To investigate teaching and learning strategies that contribute to unit of competency completion rates of apprentices at risk.



## Methodology

- Qualitative approach using mixed methods
- Rationale for research tools
- Research sample



### POLYTECHNIC Findings from focus groups staff employers and families

Focus groups identified apprentice difficulties with reading and writing course theory and coexisting behaviours:

- Anxiety
- Distractibility
- Withdrawal
- Disruptiveness



Difficulties experienced	Students Reponses	
Difficulties	Response Percent	Response Count
Understanding texts	73.7%	14
Reading	78.9%	15
Writing	52.6%	10
Maths	42.1%	8
Assessments	57.9%	11
Organisations	11	2



# Strategies for success

- focus groups identified instructional approaches as effective
- Apprentices found mentoring and tutoring as being most important by:
- simplifying terms and clarifying concepts
- · mind mapping
- · task analysis
- · use of equipment and visual representations to present abstract concepts

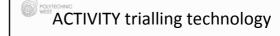


# **Potential for Technology**

• Staff and students acknowledged the benefits of technology and the need to extend its application as a learning strategy

# Potential of technology-Demonstration Students Completions Project





- Work in groups to discuss strategies and trial technology
- Consider the applications
- Report to main group

Return to groups to consider :

- Measurement effectiveness of strategies
- design of a study