



**BIRMINGHAM**  
City University

**CETL-MSOR CONFERENCE 2013**

**A Critical Evaluation of the Implementation of the  
Numeracy Strategy in the Faculty of Health at  
Birmingham City University**

**By**

**David Maynard**

# My Role



- David Maynard
- Numeracy Co-ordinator Faculty of Health
- Birmingham City University

# The Maths Gap



**Capabilities and expectations of students**

**MISMATCH**

**Demands of the course of study**

# SUMS: Profile of Maths Gap Students



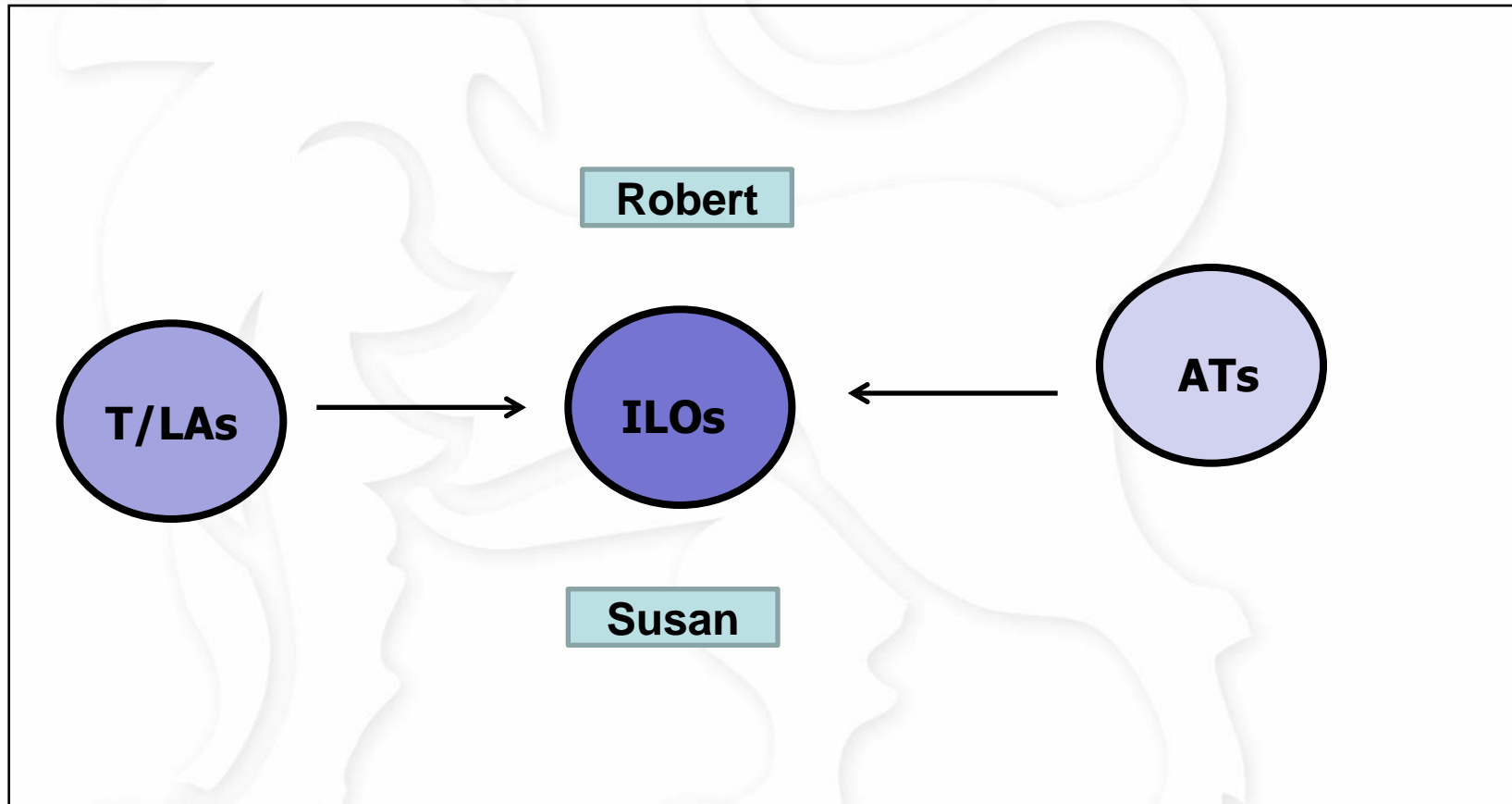
- TIME LAG
- LEARNING ISSUES
- STUDY SKILLS
- QUALIFICATIONS
- EXPECTATIONS

# BCU's Response



- Adjustment to the curriculum
- UP
- Employability Focus

# Constructive Alignment



# BCU's Faculty of Health Numeracy Strategy



- Summative numeracy assessment in each year of the nursing and midwifery programme
- Teaching and learning opportunities built into the programme
- Layered structure of numeracy support

# Year 1: Basic Numeracy



- Addition of whole numbers
- Subtraction of whole numbers
- Multiplication of decimal numbers
- Long division
- Conversion of metric units
- Simplification of fractions
- Multiplication of fractions
- Finding a percentage
- Expressing a value as a percentage of another value



# Years 2 and 3: Application



- A patient is to receive a 150 ml infusion over a period of 50 mins. At what rate in ml/hr should the infusion be set at?
- A patient is to receive 0.5 g of medication. How many tablets of strength 250 mg must be administered.
- A patient's predicted peak flow is 720 L/min, but his current peak flow is 540 L/min. Express current peak flow as a percentage of predicted peak flow.
- A child is to receive an infusion of 0.4 L but can only tolerate an infusion rate of 50 ml/hr. How long will the infusion take?

# Layered Support



# Moodle Site



NT | MULTIPLICATION STRATEGIES | WORKING WITH FRACTIONS | WORKING WITH PERCENTS

APPLICATION OF NUMERACY

EVALUATION

PRACTICE RESOURCES

Topic 10



***The Personal Development Department***

**NUMERACY SKILLS IN THE FACULTY OF HEALTH**



**Strategies for Learning**

*(Maintained by David Maynard)*



**Practice for Success**

*(Maintained by Philip Dee)*

# Factors Influencing Alignment




- Level and type of knowledge
- Decontextualised Assessment
- Anxiety/confidence continuum
- Continuity
- Feedback

# Primary Innovation



MyCAI Accessibility Navigation



**What's Maths Got To Do With It?**

**The Importance of Competent and  
Confident Numeracy Skills in  
Healthcare**

**By David Maynard**

# Reference List



- Biggs, J. and Tang, C. (2007). *Teaching for Quality Learning at University* (3<sup>rd</sup> ed). Berkshire. OUP
- Carter, T., Priddle, J., Hawkins, D., and McCary, J. (2010). *Students Upgrading Maths Skills*. London: HEA. Available at <http://www.heacademy.ac.uk/assets/EvidenceNet/SUMS.pdf> (Last accessed 8th September 2013)

# Questions

