

Numicon at ISD CPD Workshop Series April 2018

David Lyttle

Our Numicon Website

<https://in.isdedu.de/index.php/numicon>

Numicon Based Intervention: Intensive and Fun! *Intervention that works for students in Grades 3 - 7.*

Date: Friday 27 April 2018
Time: 09:00 - 16:30
**Location: Elementary School Conference Room 1.01
International School of Düsseldorf, Niederrheinstr, 323, 40489, Germany**
Cost: €150

Workshop Schedule and Outline

- 09:00 - 09:30** **Session 1: The Trouble with Maths**
Activity: What makes a good/struggling mathematician?
Review essential works of what makes a good/struggling mathematician.
Review: How do children learn maths?
Implications for teaching (Generally)
- 09:30 - 10:00** **Session 2: A Rationale for Intervention**
RTI and Linking the Theory of Inclusion
Pyramid of Needs
What makes a good intervention (Summary)
- 10:00 - 10:30** **Session 3: Reviewing the Numicon Resources**
Looking at the underlying patterns and functions of math and the Numicon Shapes.
Activity: Bonds & 'Stories of'
Activity: Patterns
Video: Making Numbers Real through patterns
- 10:30 – 10:45** **Morning Tea**
Coffee and snacks provided by ISD
- 10:45 – 11:00** **Session 4: Other intervention Programs (Brief Overview)**
The Numicon Intervention Program / Breaking Barriers / Big Ideas
Advantages and Disadvantages of other programs
Lessons to be learned from official intervention programs

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- 11:00 - 11:30** **Session 5: ISD's Numeracy Project & Numicon Based Intervention**
The Numeracy Project introduction
The Numeracy Projects Number Domains Explained
Video: Sample GLoSS assessment question showing different responses that relate to different Strategy Levels
The Numeracy Projects 'Global Strategies' as a proposed Hierarchy of concepts.
Aligning the PYP with the Numeracy Project and Numicon (CPA)
- 11:30 - 12:15** **Session 6A: Addition & Subtraction (Hierarchy progression & Overview)**
Addition & Subtraction: Key Ideas (Including Equivalency and Place Value)
Sample Lesson of Inverse Relationships to solve Subtraction with Renaming
Video: Progression of Concrete, Pictorial, and Abstract with Inverse Relationships
- 12:15 - 13:00** **Session 6B: Multiplication and Division (Hierarchy progression & Overview)**
Multiplication & Division: Key Ideas Including Associative Properties, Distributive Properties, Commutative Properties, Inverse Properties
Abbreviated Sample Lesson: Derived Facts of the 8x Tables
- 13:00 - 13:45** **Lunch Break**
Provided by ISD
- 13:45 - 14:30** **Session 6C: Ratios and Proportions (Hierarchy progression & Overview)**
Ratios and Proportions: Key Ideas Fraction Sets, Proportional Thinking, Scaling
Sample Lesson: Equivalent Fractions
- 14:30 - 15:30** **Session 7: Assessing for intervention The GLoSS diagnostic screener**
How the GLoSS Works
Videos: Asking the questions and analysing responses
Activity: Conduct your own GLoSS on (Student X OR Each Other)
Floating Afternoon Tea Break at During this Session
- 15:30 - 16:15** **Session 8: Discussion - Creating a customized intervention plan**
Activity A: Analyzing the GLoSS assessment to identify conceptual gaps
Activity B: Using the Hierarchy / Numicon / Numeracy Project Books create a general conceptual lesson sequence for Student A, B or C (Or Own Assessment)
Reviewing participants lesson sequences
- 16:15 - 16:30** **Session 9: Closing Remarks**
Final Q&A and Feedback