



Leading Mathematics K-12



YCDSB Grades 4-9 Middle Years Mathematics Collaborative Inquiry Project



Planning, Implementation and Monitoring

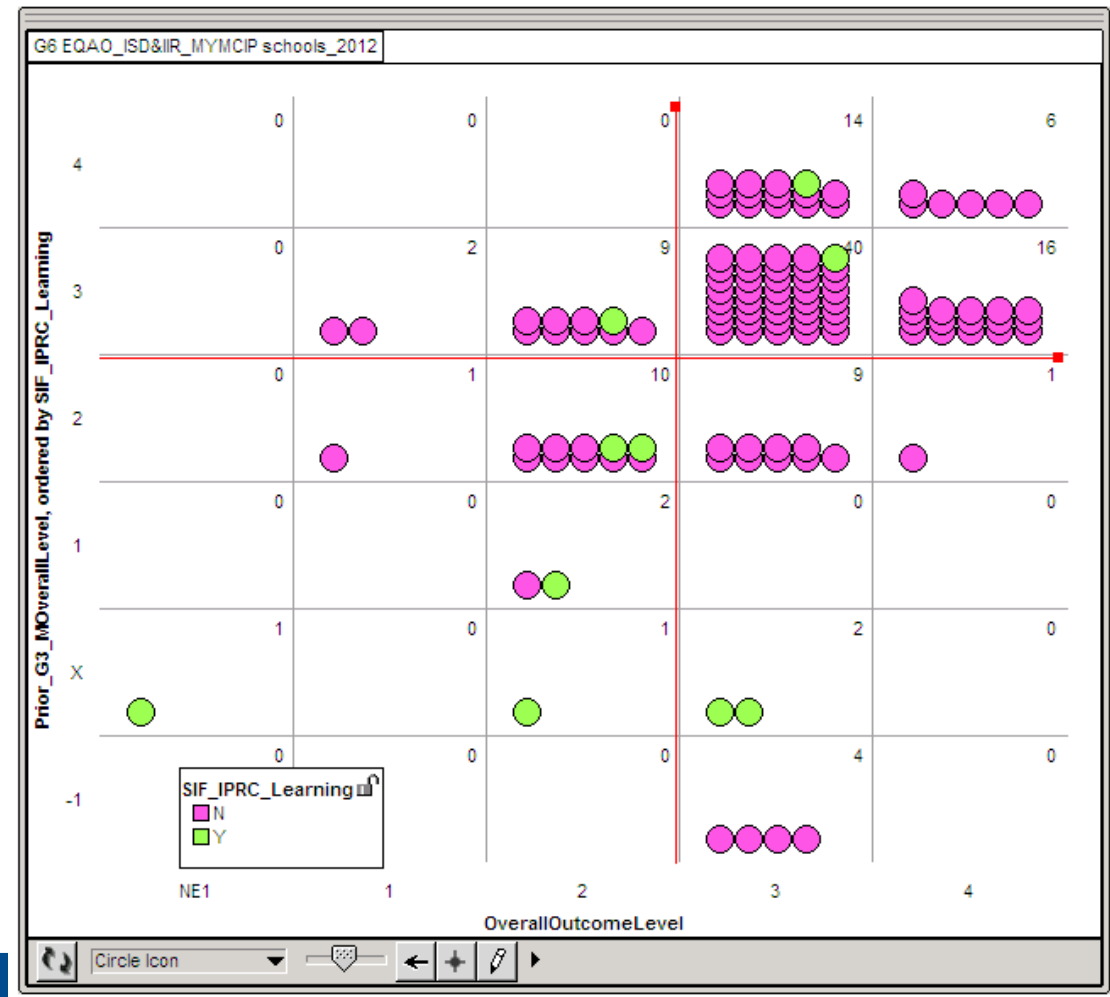
Connie Quadrini, Mathematics Consultant, YCDSB

SIM Barrie Region Session #2

Tuesday February 5th, 2013



TinkerPlots: A Tool for Planning and Monitoring



A Grade 6 EQAO Example



TinkerPlots: A Tool for Monitoring

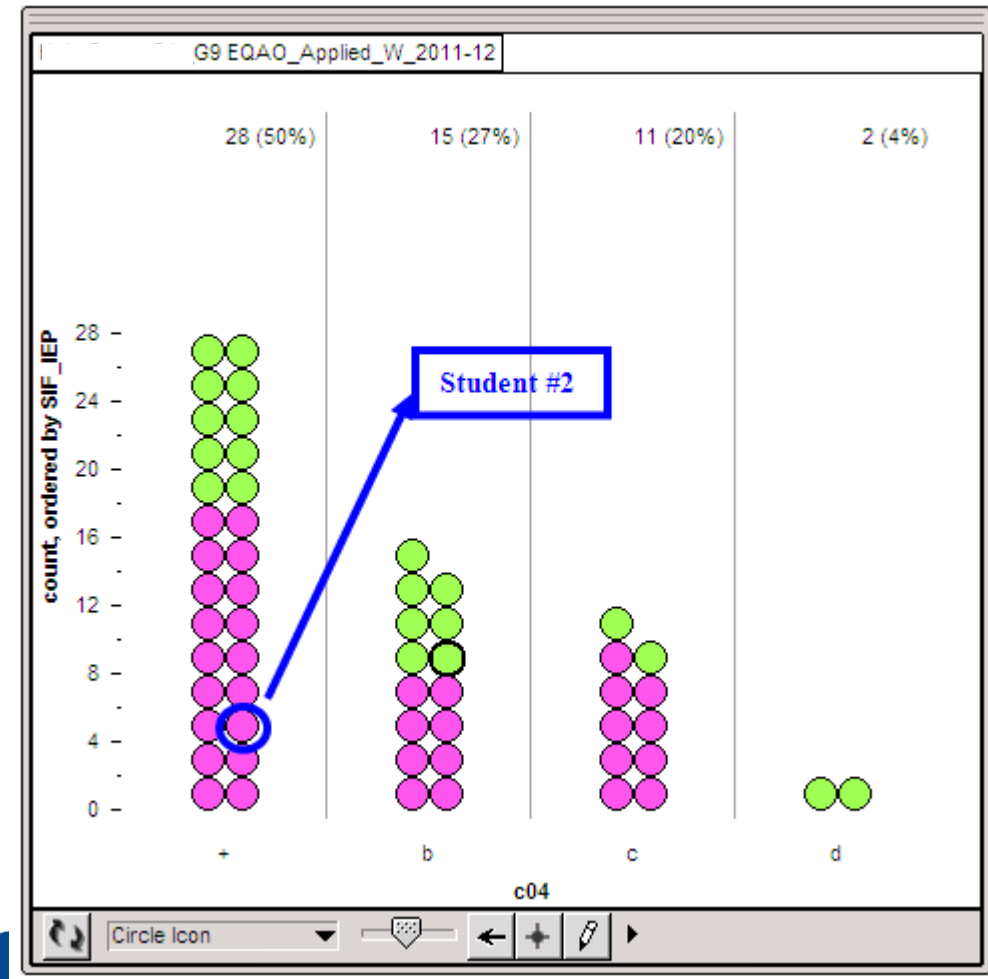
Grade 9 Assessment of Mathematics, 2012

- 4 In an election for student council president, 480 students vote.

Jade receives 55% of the votes. Ericka receives the rest of the votes.

How many votes does Ericka receive?

- a 216
- b 264
- c 425
- d 435



A Grade 9 Applied EQAO Example



TinkerPlots: A Tool for Monitoring

c04



- 4** In an election for student council president, 480 students vote.

Jade receives 55% of the votes. Ericka receives the rest of the votes.

How many votes does Ericka receive?

Students with LD who selected the correct response (7 out of 11 students) have the following profile:

Student #1 (PG)::

Areas of Strength include oral language, auditory learner, expressive language, nonverbal perceptual reasoning, listening comprehension, verbal memory

Areas of Need include reading, phonological awareness, spelling, written expression, letter formation and reversals, visual memory, mathematics – fluency, calculations

A Grade 9 Applied EQAO Example



Collaborative Analysis of Student Learning (CASL): A Tool for Implementation and Monitoring



- Student profile (strengths and needs, based on the IEP)
- Lesson goal / curriculum expectation(s) for task
- Annotation of student work...
 - What mathematical thinking is evident in the student work?
 - What partial understandings/struggles does the student work demonstrate?
 - How does the student work connect to the student strengths / areas of need identified in the IEP?
 - What are some next steps / descriptive feedback to consider for this student?





Collaborative Analysis of Student Learning (CASL): Implementation and Monitoring



Lesson Goal:
any composite number can be factored into prime factors

exploration
student-created

54:
student starts w/ factors 6 and 9
(didn't ÷ by 2; perhaps fearful of larger factor?)

use of 100's chart as a tool for identifying prime + composite through identifying multiples

coding by colour and shape for multiples

* supports visual memory and perceptual reasoning

Next Step:
word wall (shape triggers)

Supports needs:
- removes load from fine motor
- repetition for working memory
- processing speed: wait time

space provided support for fine motor

Next step: 'buzz' game (w/ 'fizz') → working on identifying multiples

factor tree organization

Next Step:
Live Scribe pen for written w/oral recording (leveraging oral expression and supporting fine motor)

could student create a different variation of the factor tree for the same number?

knows factors; continues to break down until reaches prime #'s → proof: last rows with 1's included

Strengths:
- social skills
- v. comprehension: oral expression

