Math Teacher Circles
Sustaining
MSP Projects

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this reflects the author's views, not necessarily NSF's

- NJ Partnership for

  Excellence in Middle School Math
- 4 cohorts, 20-30 mid-career teachers each
- 7 courses, 5 math, 2 pedagogy, 19 months
- 4 in summer institute format
- Staff: math faculty and grad students
  - Math ed faculty and grad students
  - PD facilitators

NJ PEMSM

- Daily schedule in summers
  - 9-10 am reports on yesterday's workshops
  - 10-11 am exposition interleaved with exploration
  - 11am-12:30pm workshop, rather like an MTC
  - 12:30-1:15 lunch
  - 1:15-2 pm Q&A and/or more workshop time
  - 2-3pm Discuss Classroom Connections
  - 3-4 pm Wrap-up

Typical PEMSM Workshop

- Mrs. Wilkinson puts out pencils at 8am

- At 9am half are gone

- At 10am, 1/3 of the remaining pencils are gone

- At 11am, 1 / 4 of the remaining pencils are gone
  - AND there are 15 pencils left.

- How many pencils were put out at 8am?

- How many ways can you solve this?

An Ed MSP

- CNJ PEMA   Central NJ

  Partnership to Enhance Math Achievement
- Serving primarily upper primary teachers
- Summer Course very like PEMSM plus AY PD
- Funded 2013-2015, $ expected 2015-2016
- 36 teachers in Cohort 1
- 45 teachers in Cohort 2

CNJ PEMA

- Math content
  - Numbers systems & properties
  - Arithmetic of Fractions
- Lessons Learned: teachers are
  - eager to discuss math with peers
  - grateful for respectful coaching
  - willing to come in AY for an MTC

Typical PEMA workshop

- The area of a 1' by 1' square is 1 square inch
- Explain with an area model why
  - the area of a 2' by 3' rectangle is 6 square inches
  - the area of a 1 / 2 ' by 1' rectangle is 2 sq in
- Explain why
  - the area of a 1/2 ' by 1/2' square is 1 / 4 sq in
  - the area of a 3.5' by 2' rectangle is 7 sq in
- Find the area of a 2.5' by 4.5' rectangle
  - Justify

New Brunswick PLC

Supported by a small internal Rutgers grant

- Middle school teachers
- Met monthly for 90 minutes
- District Leadership requested
  - Arithmetic of Fractions
  - Use of Formative Assessment
- Participants eager to continue
- Now district wants MTCs for MS and HS

NB & PEMA MTC problem

- Pat buys packs of candy [--chicken nuggets?]
  - Some packs contain 3 pieces
  - Some packs contain 7 pieces
  - Some packs contain 8 pieces
- What numbers of pieces of candy can Pat get?
- What numbers of pieces can't Pat get?
- Explain several ways ?

Starting up "Rutgers MTCs"

- Found a team to go to DC in June 2013
- Found an organizing committee
- Planned: Jersey Shore MTC, Central NJ MTC
- PEMSM reunions w/ demo MTC & recruiting
- Fall initial MTC events & more recruiting
- Funding
- Lessons learned

Acknowledgements & Disclaimers

- These organizations are not responsible for the contents of this talk;

- Do not infer that they endorse its opinions, content, or materials.