

A Supervised Math Tutoring Experience for Teacher Candidates

OSEP Project Directors' Conference

August 1st-3rd, 2016

Louise Spear-Swerling, Ph.D.
Department of Special Education & Reading
Southern Connecticut State University

Undergraduate comprehensive K-12 special education and collaborative elementary/special education programs at SCSU: Field experiences

- SED 225 – Classroom observations
- SED 365 – Supervised tutoring (math)
- SED 435 – Supervised tutoring (reading)
- SED 449 – Small group instruction (reading, math, content areas); includes collaboration
- EDU 450/451 – Student teaching

SED 365 – Academic Assessment and Remediation

- First 7-8 weeks of semester: pedagogical content knowledge about assessment and math
- Assessment content includes types and purposes of assessment; utility of CBM in screening/PM; ethical considerations in assessment
- Math content includes important components of math; role of automaticity/fluency in math achievement; general education expectations; common math difficulties; value of explicit, systematic instruction; value of manipulatives and visual representations especially for concepts
- In-class practice of math assessments with a peer

SED 365 (continued):

- Field work begins about week 8 of semester
- Tues/Thurs class – 1 session per week at local magnet school (K-8), 1 session at university
- Field work children usually in Grades 3-5
- All field sessions supervised on site by course instructor
- About 8 field sessions in total – 1 to 2 formative assessment sessions, 6 to 7 tutoring sessions
- Candidate assignments include diagnostic report, lesson plans, goals and objectives, reflections, brief final summary report, portfolio

Examples of high-leverage practices developed:

- Explaining/modeling (math) content and strategies
- Eliciting and interpreting children's thinking
- Diagnosing common patterns of thinking/common errors (in math)
- Adjusting instruction during a lesson
- Building respectful relationships with students
- Setting long-term and short-term goals/objectives
- Designing single lessons and sequences of lessons
- Checking student understanding
- Interpreting results of student work
- Providing oral feedback to students
- Analyzing instruction for the purpose of improving it

Features of effective practice embedded in the field experience:

- Spaced learning: Tutoring sessions are spaced across ~6 weeks and candidates have opportunities to grow and develop as teachers
- Modeling: Course instructor provides modeling in class and also for individual candidates during tutoring sessions
- Explicit coaching and feedback: Provided to candidates during tutoring sessions and also in a short class debriefing after tutoring

More Features of effective practice embedded in the field experience:

- Scaffolding: Occurs across the 6 tutoring sessions, with most candidates becoming increasingly independent over time
- Analyzing and reflecting: Candidates must address specific points in their lesson reflections, e.g., pacing of lesson; child's engagement; most/least successful activities; objectives met/not met; specific improvements for next session

Some benefits of this field experience:

- High degree of coherence between course content knowledge and field application
- Makes course content learning much more meaningful for candidates
- Experience does facilitate development of important teaching competencies (e.g., explicit teaching and modeling, unambiguous feedback to student errors, use of scaffolding)
- Provides course instructor with a much more complete picture of candidates' skills

Some challenges:

- Keeping course sizes small enough for meaningful supervision (current max = 16)
- Finding enough time for content coverage
- Finding schools near campus with the space to accommodate us
- Occasional problems with weak candidates who cannot be counseled out prior to start of tutoring
- Achieving consistency across different course sections (e.g., those taught in the evening or by adjuncts)

Thank you!

Contact information:

Email: SPEARSWERLL1@southernct.edu