

APPENDIX A

Units of Study, Analysis Variables and Instruments/Measures Used to Answer Each Research Question

Research Question	Unit of Study	Analysis Variables	Instruments/Measures
Key Impact Analysis Questions			
1. Do SIOP-trained teachers score significantly higher on the Standards Performance Continuum (SPC) assessment than do teachers with no SIOP training?	4 th and 5 th grade teachers in treatment and control schools	Measures of quality of instructional practices aligned to sheltered instruction and proven effective with diverse learners including English learners	SPC Observation Measure
2. Do ELL students in schools with SIOP-trained teachers score significantly higher than ELL students in schools with non-SIOP-trained teachers on the ACCESS assessment (Georgia's state-adopted English-language proficiency assessment)?	4 th and 5 th grade ELL students in treatment and control schools	Raw scores, scale scores, and English language proficiency levels scores for: <ul style="list-style-type: none"> ▪ Listening ▪ Speaking ▪ Reading ▪ Writing ▪ Oral language (listening & speaking) ▪ Literacy (reading & writing) ▪ Comprehension (reading & listening) ▪ Overall (all four language domains) 	ACCESS for ELLs
3. Do ELL students in schools with SIOP-trained teachers score significantly higher than ELL students in schools with non-SIOP-trained teachers on the CRCT five content areas (Georgia's end-of-year achievement tests)?	4 th and 5 th grade ELL students in treatment and control schools	Scale score and performance level scores on: <ul style="list-style-type: none"> ▪ Reading ▪ English/Language Arts ▪ Mathematics ▪ Science ▪ Social studies 	Georgia's Criterion-Referenced Competency Test (CRCT)
Additional Research Question			
4. Do non-ELL students in schools with SIOP-trained teachers score significantly higher than non-ELL students in schools with non-SIOP-trained teachers on the CRCT five content areas (Georgia's end-of-year achievement tests)?	4 th and 5 th grade non-ELL students in treatment and control schools	The CRCT variables	Georgia's Criterion-Referenced Competency Test (CRCT)