Education Innovation and Research – Early-Phase Grant (84.411C)

Seminole County Public Schools

Exceptional Student Support (ESE) Curriculum Project

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A. Significance. The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004 included *an increased focus on the use of scientifically-based instructional practice.* When practiced most effectively and ethically, special education is also characterized by the use of evidence-based teaching methods, the application of which is guided by direct and frequent measures of student performance (Heward, 2003). *Observations of classroom practice, however, have suggested that the education received by many students with disabilities does not take advantage of that knowledge* (Kauffman et al, 1996). In this application, Seminole County Public Schools (SCPS) proposes to evaluate implementation of a whole school model designed to systematically utilize evidence-based teaching methods for students with disabilities. The proposed study is submitted for consideration in the Education Innovation and Research (EIR) Early-Phase Competition to address absolute priorities 1 (Demonstrates a Rationale) and 2 (Field Initiated Innovations). In the state of Florida, SCPS is a large district comprised of approximately 68,000 students. Students served through exceptional student education, including students identified as gifted, account for 23.6% of the district population. SCPS has a total of 37 elementary schools with a population of approximately 29,500 students, of which the number of targeted ESE students is approximately 3,400 (12%). In 2015/16, SCPS began piloting the **ESE Curriculum Project** (ESECP) to address the inconsistent approach to selecting appropriate curriculum for ESE students. The *overall focus* of the project is to effectively infuse ***behavioral approaches within the traditional instructional pedagogy, creating a significant merger between clinical interventions for children and youth, and instructional strategies for students with certain exceptionalities***. Based on the principles of Applied Behavior Analysis (ABA), the model has been utilized as a whole school approach in five elementary schools and a partial implementation in 9 schools to date. Through partnership with RMC Research the proposed EIR

project will allow SCPS to *establish effectiveness* of a whole school approach being implemented by using a rigorous quasi-experimental design (QED) study that meets What Works Clearinghouse Standards (with reservations). The outcomes of this study will provide relevant and timely insight into the effect of the model for potential future scaling in all Seminole County Public Schools, *as well as to other school districts across the state and nation*. The data on increased achievement for Students with Disabilities (SWD) will add to and in some cases establish what constitutes an evidence-based curricula model for special education teachers nationally. The ESECP will increase academic achievement in reading, language, and math for approximately 1,000 high needs SWD, 60% of whom are economically disadvantaged , K-5, at 13 elementary schools. As a result of this increase in achievement, SCPS will close performance gaps between SWD in SCPS and SWD in the state of Florida on the Florida Standards Assessment (FSA). (A.1) *Contribution of the proposed project in understanding of the educational problems for students with disabilities* - In addition to IDEA and the Every Student Succeeds Act (ESSA) calling for use of evidence-based interventions, a recent Supreme Court ruling has brought increased attention to ensuring students with disabilities make adequate progress (U.S Department of Education). In March 2017, the Supreme Court decision in the case of Endrew F. v. Douglas County ruled that a child's educational program be "appropriately ambitious in light of his circumstances" (No. 15-827, 580 U.S.,2017).This ruling overturned the *de minimis* standards upheld by the 10th circuit court. Despite a Supreme Court ruling and the legislative mandates of IDEA and ESSA, several problems to increasing achievement for students with disabilities still exist. These include: (A.1.1) *Lack of rigorous research pointing to what methods would be effective in teaching students with disabilities*. A search for interventions for students with disabilities in the What Works Clearinghouse database yielded four programs

showing positive results in increasing reading achievement and only one showing positive results

in general math achievement ("Children and Youth with Disabilities Database"). Further, a

search in the Evidence for ESSA database filtered by special education subgroup yielded one

reading program proven to be effective with special education students and no math programs

("Evidence-based programs"). (A.1.2) *A significant achievement gap exists between students*

with disabilities and their typical peers - Since the National Assessment of Education Progress

(NAEP) began reporting data on SWD on the Nation's report card, there has been a gap between

SWD and students without disabilities (Nation's Report Card, 2017) [*Table 1*]. The performance

gap between SWD and students without disabilities is also noteworthy at the local level, both

within the district and the state [*Table 2*].

Table 1. **SWD/Non-SWD Performance on NAEP (2017),** *Average Scores[1]*

Sub-Group ▼	Nation Grade 4 Avg. 2013	Nation Grade 4 Avg. 2015	Nation Grade 4 Avg. 2017	Florida Grade 4 Avg. 2013	Florida Grade 4 Avg. 2015	Florida Grade 4 Avg. 2017
Non-SWD	226	227	226	231	232	232
SWD	184	186	186	204	205	206
Gap	-42	-41	-40	-27	-27	-26

Table 2. Percentage of Students Scoring Level 3 or Above, Florida Standard Assessments (2018)[2]

	Seminole County			State of Florida		
	Non-SWD	*SWD*	*GAP*	*Non-SWD*	*SWD*	*GAP*
ELA	67	22	-45	59	21	-38
Math	69	28	-41	62	27	-35

(A.1.3) *Lack of research and application of teaching methods utilizing Applied Behavior*

Analysis in the public school setting despite overwhelming evidence of its effectiveness in clinical

settings - Applied Behavior Analysis (ABA) is the process of systematically applying

interventions based upon the principles of learning theory to improve socially significant

behaviors to a meaningful degree, and to demonstrate that the interventions employed are

responsible for the improvement in behavior (Baer, Wolf & Risley, 1968; Sulzer-Azaroff &

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[1] Data Source: The Nations Report Card State Student Group Scores and Score Gaps
[2] Date Source: FLDOE EDStat Closing the achievement gap

Mayer, 1991). Based on the empirical evidence, many scientific, government, and professional agencies and organizations have concluded that ABA-based procedures represent best practices for individuals with autism and intellectual disabilities (Rush & Frances, 2000). The National Center for Autism National Autism Standards Report (2007), which reviewed 7,038 abstracts of research, concluded in their report, "It can be argued that all 14 established interventions are behavioral interventions." (A.1.4) *Shortage of highly qualified ESE teachers -* According to the Learning Policy institute, in the 2016-2017 school year, 48 states and the District of Columbia reported having shortages of special education teachers. This shortage often results in unfilled teacher vacancies or filling vacancies with underprepared teachers (Learning Policy Institute, 2017). According to the Center on Personnel Studies in Special Education, 13% of special education teachers nationally depart each year, which is ten times the rate of general education teachers. Without a systematic model derived from a research base that points to evidence-based practices and supports from district and school administrators, ESE teachers will perpetuate the use of ineffective instruction, continue to leave the field, and the nation will continue to see a lack of achievement for our most vulnerable students. It is imperative at this critical juncture in the field of education that expert local practitioners within schools contribute to the research on best practices for students with disabilities. (A.1.5) *Effective strategies for SWD -* To date, initiatives implementing components of a behavioral approach have been implemented in public schools. These include the Pennsylvania Training and Technical Assistance Network (PaTTAN) Autism Initiative and work done by the National Institute for Direct Instruction (NIFDI). For the past 14 years, PaTTAN has worked towards a systematic implementation of ABA in the public schools, serving over 500 school sites across the state of Pennsylvania. While the PaTTAN initiative primarily serves students on the Autism spectrum, the ESECP has applied this model to

serve *any* ESE K-5 student functioning in the 0-48 month range. Since its creation in 1997, NIFDI has supported DI implementations in 22 states through training, coaching, and offsite support. NIFDI is currently working in 28 IDEA Public Schools academies (grades 6-12), implementing DI for their Critical Intervention Students which includes SWD. SCPS will benefit from the expertise of both PaTTAN and NIFDI to support the ESECP (see attached letters of support). While these initiatives have been shown to be effective in part, the ESECP demonstrates an exceptional approach by synthesizing these proven practices to offer a <u>whole school framework</u> to support SWD as described in the conceptual framework. (A.2) <u>Demonstration of promising new strategies</u>. The SCPS ESECP *will infuse a behavioral approach into the traditional instructional pedagogy, creating a significant merger between clinical interventions for children and youth, and instructional strategies for students with certain exceptionalities* - Results from early implementation of the ESECP point to promising strategies to prepare teachers to select and implement evidence-based curricula, to implement selected curricula with fidelity, to demonstrate increased student achievement, and to increase teacher satisfaction. (A.2.1) *The promise of preparation* - Research has demonstrated that instruction related support is necessary for teachers to be effective (Feiman-Nemser, 2003 and Gold, 1996). For the past four summers, SCPS has conducted a summer training to prepare teachers to implement the ESECP. The training based on the model conducted by district partners at the PaTTAN, covers basics of Applied Behavior Analysis, instructional methods, data collection, data based decision making, and classroom organization. From 2010-2017 PaTTAN has conducted 69 trainings with a total of 5,210 participants. SCPS has been able to replicate the PaTTAN training model and has trained approximately 150 individuals through this model. (A.2.2) *The promise of fidelity* - The implementation of effective practices will be monitored by

using aligned fidelity checklists (site reviews) twice per year. The site review was designed

utilizing the PaTTAN site review as a model. In SCPS, site reviews have been utilized for three

years in pilot classrooms implementing the ESECP model with the following results: Fall 2015,

47% (9 classes); Spring 2015, 65% (9 classes); Fall 2016, 67% (15 classes); Spring 2017, 76%

(17 classes); Fall 2017, 60% (45 classes); and Spring 2018, 77% (43 classes). Inter-observer

agreement from the spring 2018 review was calculated at 90% agreement. In SCPS, teachers

who attended training in 2018 scored an average of 14% higher on the fall site review than

teachers who didn't attend. Preliminary data also suggest that repeated years teaching in project

schools leads to increased fidelity over time. In the 2017-2018 school year, first year project

teachers scored an average of 57% on spring fidelity checks, second year teachers scored and

average of 70%, while teachers implementing for three years scored an average of 88%. These

data demonstrate the promise of this model to be implemented in new sites while continuing to

increase the overall fidelity of implementation, the effectiveness of the training model in

increased initial fidelity, and continued increase in teacher fidelity over time. (A.2.3)*The promise

of increased achievement* – Curriculum-Based Measures (CBM) were originally developed to

test the effectiveness of special education interventions. Studies have shown that less than half of

teachers utilize this method to evaluate their instruction (Deno, S.L., 2003). The ESECP offers a

comprehensive approach to CBM in light of each student's instructional level and participation

in prescribed curricula (Appendix I – ESECP Assessment Guide). SCPS has seen promising

results in both CBM and state assessments with the ESECP. In 2018-2019 the ESECP served 78

"developmental" students who demonstrated an average growth of 9 months on the Verbal

Behavior Milestones Assessment and Placement Program (VB-MAPP). These results represent

growth for a subset of students who had no previous CBM. SCPS has used the I-Ready

Diagnostic three times per year to measure growth for all academic students in elementary school since SY2017-2018. For one school new to a whole school ESECP implementation, a comparison in average scale score growth from Diagnostic 1 to Diagnostic 2 pre and post ESECP was conducted. **Preliminary data suggest that implementation of the ESECP led to an increase in the average scale score gains of SWD to yield gains almost equivalent to grade level average in reading and more than the grade level average in math.**

Table 3. *Average Scale Score Gain on I-Ready Diagnostic Grades 1-5*

	Reading (2017) No ESECP	Reading (2018) ESECP Yr 1	Math (2017) No ESECP	Math (2018) ESECP Yr 1
All Students	24.2	20.6	20.6	16
SWD	15.4	20	15.2	19.4
GAP	-8.8	-0.6	-5.4	+3.4

For two schools implementing a whole school ESECP approach (with an average fidelity of 83%) results indicate a decrease in SWD scoring *level one* on the Florida Standards Assessment (FSA) and an increase in the percent of students demonstrating proficiency (*level three+*).

Table 4. *Change in percent of ESE students scoring Level 1 and Level 3 or higher*

	# of Years in ESECP	+/- Level 1	+/- Level 3
School 1 Reading	2	-12%	+11%
School 1 Math	2	-13%	+18%
School 2 Reading	1	-4%	+8%
School 2 Math	1	-9%	+4%

(A.2.4) *The promise of Teacher Satisfaction* - As mentioned above, 12% of elementary school ESE teachers left the profession for various reasons. In schools implementing full or partial ESECP, only 1% of teachers left. At the end of the 2017/2018 school year five, teachers requested transfers to schools utilizing the ESECP.
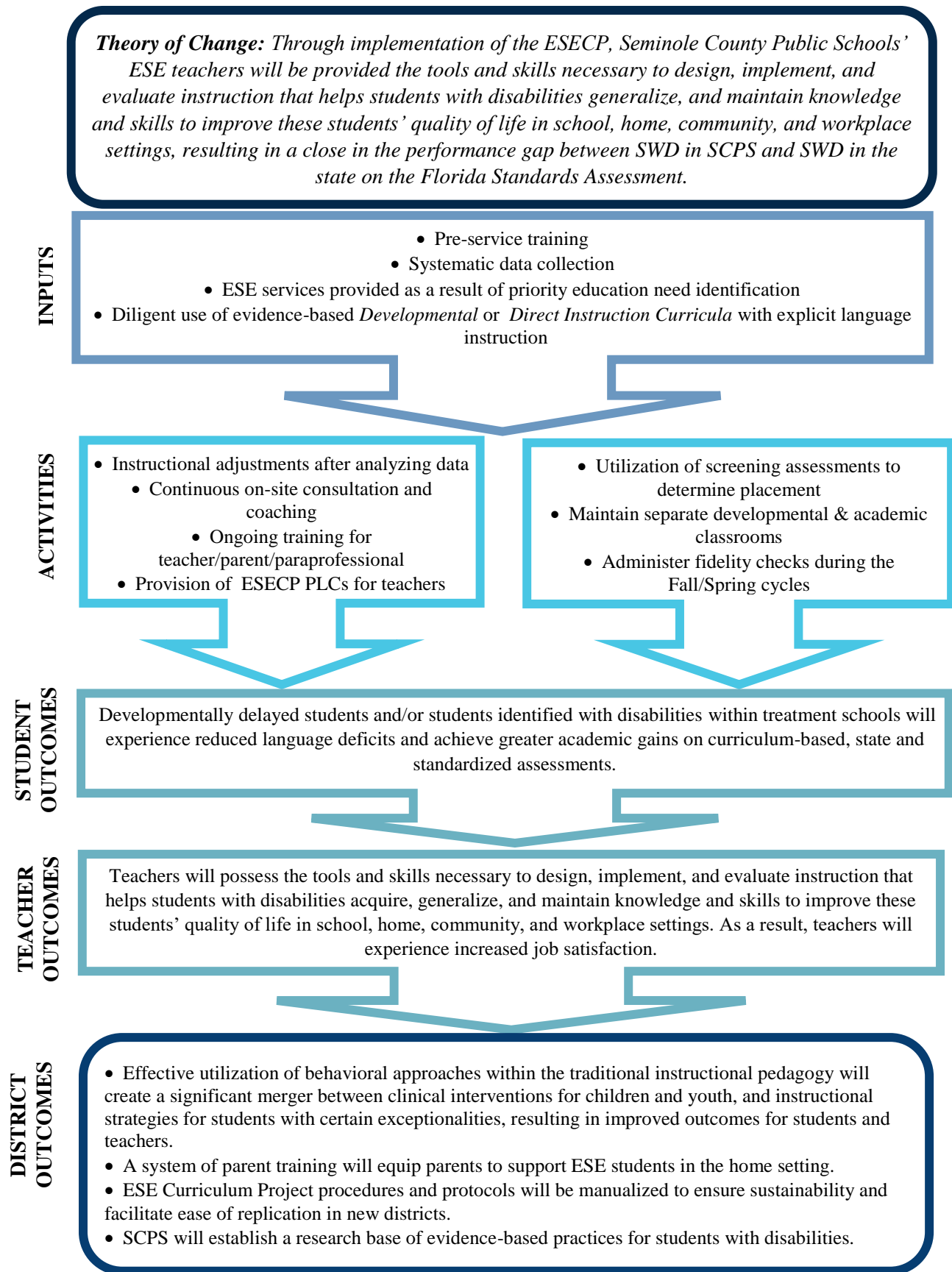
B. Quality of the Project Design (B.1) *Project Goals, Objectives and Outcomes* - Using a three part structure, nine goals with corresponding objectives and measurable outcomes are established (Appendix I) that center around the ESECP logic model (Appendix G), and a defined timeline (Appendix I). The following *Theory of Change,* as identified in the Logic Model (Figure 1), is anticipated: *Through implementation of the ESECP, <u>teachers will be provided</u> the tools & skills necessary to design, implement, and evaluate instruction that helps students with disabilities generalize and maintain knowledge/skills <u>to improve</u> these students' quality of life in school, home, community, and workplace settings, resulting in a close in the performance gap between SWD in SCPS & SWD in the state on curriculum-based, state, and standardized assessments.*

Table 5. *Summary of Goals*
(See full ESECP Goals, Objectives, and Outcomes Table – Appendix I)

Part 1: Prepare 13 elementary schools to implement an evidence-based curriculum model for all ESE students.
Goal 1: Prepare school administration, all staff, and students for implementation of the ESECP in 13 schools.
Goal 2: Prepare ESE teachers and support staff at 13 schools to implement the ESECP.
Part 2: Achieve high fidelity implementation in 13 elementary schools leading to increased parent/teacher satisfaction as well as improved academic achievement on state, standardized, and curriculum-based measures.
Goal 3: Implement Evidence-Based Practices for SWD with Fidelity.
Goal 4: Increase Parent involvement in the education process provided by the public schools and implement a parent training plan to transfer skills to the home environment.
Goal 5: Increase ESE teacher job satisfaction by consultation, ongoing training, and establishing professional learning communities.
Goal 6: Improve academic achievement for SWD on standardized, curriculum-based, and state measures of performance.
Part 3 Disseminate findings, manualized procedures, and implement a sustainability plan district wide.
Goal 7: SCPS in partnership with RMC research will disseminate findings and contribute to research base on best practices for SWD.
Goal 8: SCPS will manualized ESECP procedures to facilitate the ease of replication of the model in other districts.
Goal 9: SCPS will create a sustainability plan to ensure longevity of the ESECP should research demonstrate the effectiveness of the model.

Figure 1. *ESECP Logic Model*

Theory of Change: *Through implementation of the ESECP, Seminole County Public Schools' ESE teachers will be provided the tools and skills necessary to design, implement, and evaluate instruction that helps students with disabilities generalize, and maintain knowledge and skills to improve these students' quality of life in school, home, community, and workplace settings, resulting in a close in the performance gap between SWD in SCPS and SWD in the state on the Florida Standards Assessment.*

INPUTS
- Pre-service training
- Systematic data collection
- ESE services provided as a result of priority education need identification
- Diligent use of evidence-based *Developmental* or *Direct Instruction Curricula* with explicit language instruction

ACTIVITIES
- Instructional adjustments after analyzing data
- Continuous on-site consultation and coaching
- Ongoing training for teacher/parent/paraprofessional
- Provision of ESECP PLCs for teachers

- Utilization of screening assessments to determine placement
- Maintain separate developmental & academic classrooms
- Administer fidelity checks during the Fall/Spring cycles

STUDENT OUTCOMES
Developmentally delayed students and/or students identified with disabilities within treatment schools will experience reduced language deficits and achieve greater academic gains on curriculum-based, state and standardized assessments.

TEACHER OUTCOMES
Teachers will possess the tools and skills necessary to design, implement, and evaluate instruction that helps students with disabilities acquire, generalize, and maintain knowledge and skills to improve these students' quality of life in school, home, community, and workplace settings. As a result, teachers will experience increased job satisfaction.

DISTRICT OUTCOMES
- Effective utilization of behavioral approaches within the traditional instructional pedagogy will create a significant merger between clinical interventions for children and youth, and instructional strategies for students with certain exceptionalities, resulting in improved outcomes for students and teachers.
- A system of parent training will equip parents to support ESE students in the home setting.
- ESE Curriculum Project procedures and protocols will be manualized to ensure sustainability and facilitate ease of replication in new districts.
- SCPS will establish a research base of evidence-based practices for students with disabilities.

(B.2) *Conceptual Framework* - The ESECP proposes the following conceptual framework

utilizing an exceptional approach to: grouping students for instruction, assessment, instruction,

data collection, and data analysis.   Figure 2. ***ESECP Curriculum Domains***

An exceptional approach to

grouping: Prior to

implementation of the ESECP,

SCPS placed students into

classrooms based on their

identified primary exceptionality

without regard to level of

academic functioning. This lead

to classes where students had a

very wide range of needs. The

ESECP proposes assigning

students by priority educational need, with consideration to the Least Restrictive Environment,

(LRE) to classrooms in one of the following domains: Medical, Developmental, Academic or

Behavioral. **Developmental Domain –** *Curriculum-Based Assessment:* The VB-MAPP The VB-

MAPP is a criterion-referenced assessment tool, curriculum guide, and skill tracking system that

is designed for children with autism, and other individuals who demonstrate language delays and

have an instructional level in the 0-48 month range (Sundberg, M. L.,2008).The VB-MAPP

breaks language and related skills down into 16 different skill areas (or domains). *Instruction:*

Students will be taught targeted skills based off of the VB-MAPP assessment using the following
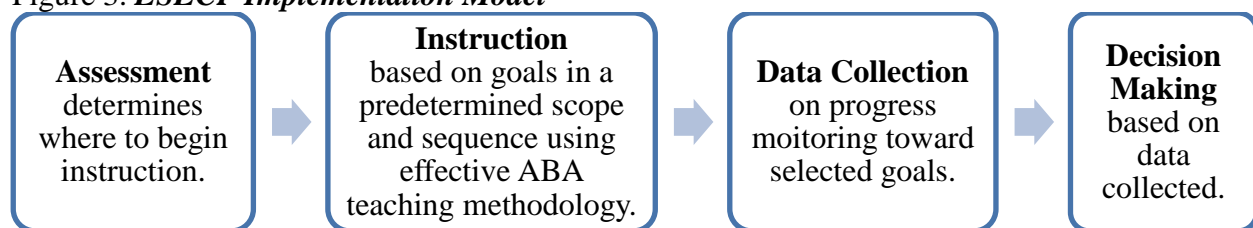
behavioral teaching methods. Intensive Trial Training (ITT): The ITT format is comprised of

multiple 'trials' where the child is exposed to learning stimuli. All new skills are introduced errorlessly (with prompting) and the prompts are immediately faded to an independent response. After mastering skills through ITT, these skills are transferred to other environments using Natural Environment Training (NET) teaching procedures. In their study *Early Intervention for Children with Pervasive Developmental Disorder* Smith, T., Groen, A. D., & Wynn, J. W. utilized similar teaching procedures. This study met WWC standards with reservations and showed substantively important positive effects on cognition. Mand Training: Many students entering the developmental classrooms lack the ability to communicate their basic wants and needs. A portion of each school day is spent teaching students to independently ask for preferred items. Students may communicate vocally, using sign language, or with picture exchange. *Data Collection:* Teachers will collect daily probe data on target skills to assess student progress. Students will master goals after they can demonstrate skills on the first try each day for at least three consecutive days. Cumulative data on the type and number of skills mastered will be collected and graphed daily for each student. Students in the medical circle will participate in these instructional methods for the time they are available for instruction. **Academic Domain.** *Curriculum-Based Assessment:* Students who are 2 or more years behind grade level but demonstrate an instructional level in the k-5 range will be given curriculum-based placement tests in deficit areas. Placement tests will determine their current instructional level and give teachers an entry point on a specified curriculum scope and sequence. *Instruction:* Students will receive up to three Direct Instruction groups per day. Reading Mastery, Reading Mastery Language, Corrective Reading Decoding, Corrective Reading Comprehension, and Connecting Math Concepts will be utilized as prescribed by the placement test results. Direct Instruction (DI) is explicit, systematic instruction based on scripted lesson plans that contain the following

features: students are ability grouped and re-grouped based on their rate of progress through the program; emphasis is placed on the pace and efficiency of instruction; DI programs are meant to accelerate student progress; therefore, lessons are designed to bring students to mastery as quickly as possible. A meta-analysis, *The effectiveness of direct instruction curricula: A meta-analysis of a half century of research* examined the literature published from 1961-2016 on DI examined 318 studies with almost 4,000 effects. "All of the estimated effects were positive and all were statistically significant except results from meta regressions involving affective outcomes" (Stockard, J, Wood, T.W., Coughlin, C., & Khoury, C. R., 2018). Effects showed little decline during maintenance, and effects for academic subjects were greater when students had more exposure to the programs. *Data Collection:* Student data will be collected using a Lesson Progress Chart. Each day teachers will indicate which lessons the student worked on and note if content was mastered or review needed. Teachers will track number of lessons mastered and graph the weekly total to examine the rate of progress. Data on program mastery tests/checkouts will be collected. Students in the Behavioral Circle will participate in the DI groups when determined to be appropriate on an individual student basis by that student's Individual Education Plan (IEP) team. The following ESECP Implementation Model (Figure 3) represents an exceptional approach to implementation of effective pedagogy for SWD.

Figure 3. *ESECP Implementation Model*

Assessment determines where to begin instruction.	**Instruction** based on goals in a predetermined scope and sequence using effective ABA teaching methodology.	**Data Collection** on progress moitoring toward selected goals.	**Decision Making** based on data collected.

(B.3)*Performance Feedback and Continuous Improvement* -The district uses a rigorous continuous improvement model to provide timely and regular feedback on progress toward

district and project goals. This model offers opportunities for ongoing review, modification, and

improvement of specific initiatives throughout implementation. The Project Manager will

possess primary responsibility for ongoing progress monitoring in close collaboration with

leadership. The ESECP team will consult with project partners monthly (NIFDI, PaTTAN, and

UCF-CARD) through on-site visits, conference calls, and virtual visits to problem solve, review

student data, and course correct. The project team will meet at least quarterly with the evaluation

team (RMC) as described in the evaluation section. While analysis of data will be continuous,

midyear and annual reports will be shared with district/school leadership, as well as stakeholders.

C. Adequacy of the Resources and Quality of the Management Plan

(C.1)*Management Plan* - The school district has a proven track record for capacity to

successfully implement innovative projects within its schools, with responsibility for multiple

millions of dollars in grant funding provided by local, state, federal and private sources. To

ensure funds are expended within the guidelines outlined by each funder and a return on

investment is generated through funded programs, the district maintains a solid organizational

capacity within financial and data management. The district's departments of Federal Projects &

Resource Development, Finance, Purchasing, Information Services, and Assessment &

Accountability have qualified personnel and data systems to ensure records can be maintained.

Each department has successfully managed special projects and has consistently utilized sound

fiscal management procedures in federally funded opportunities. The ESECP budget narrative

includes items needed to fulfill the project implementation and evaluation and correlates with the

ESECP timeline and milestones, thus ensuring a consistent project expenditure rate across all

budget categories. Project milestones and stakeholders responsible for those milestones during

the five year project period are outlined in Table 6. ***ESECP Project Management Timeline:***

Key Milestones project timeline (Gantt chart). Key Staff Responsible columns: SCPS Exec, SCPS PM, SCPS SS, RMC, NIFDI, PaTTAN, CARD. Time columns grouped by year.

Key Milestones	SCPS Exec	SCPS PM	SCPS SS	RMC	NIFDI	PaTTAN	CARD	Y1 Pre Q4	Y1 Q1	Y1 Q2	Y1 Q3	Y1 Q4	Y2 Q1	Y2 Q2	Y2 Q3	Y2 Q4	Y3 Q1	Y3 Q2	Y3 Q3	Y3 Q4	Y4 Q1	Y4 Q2	Y4 Q3	Y4 Q4	Y5 Q1	Y5 Q2	Y5 Q3	Y5 Q4	Post Q3	Post Q4
Complete district-level setup of special project and recruit program manager.	x							x																						
Revise and Finalize Fidelity of Implementation Checklists		x	x	x	x	x	x		x																					
Develop Qualitative measures and recruitment plan.		x		x					x																					
Develop and Finalilze pre implementation checklist		x						x																						
Finalize Evaluation Design	x			x						x																				
Finalize Management Plan	x	x		x						x																				
Training Materials/Content Finalized		x	x				x				x																			
Give Parent/Teacher Questionnaire to treatment schools.		x		x			x				x			x				x				x				x				
Obtain Informed consent for Treatment Schools	x	x		x					x				x				x				x				x					
Hire/Onboard standardized test administrators		x							x				x				x				x				x					
Complete baseline/follow-up standardized assessments for Treatment and comparison students		x	x	x					x	x			x	x			x	x			x	x			x	x				
Pre Implementation Checklist is complete for year 1 schools	x	x							x				x				x				x									
Determine Treatment and Match students	x	x		x							x			x				x				x				x				
Complete curriculum based assessments for student placement		x	x						x	x			x	x			x	x			x	x			x	x				
BCBAs visit to PaTTAN School Sites		x				x			x								x													
Hire Academic Consultant (Teacher on Assignment)		x						x					x																	
Meet with stakeholders (CARD) to develop parent training schedule		x					x		x					x			x				x									
Order Curriculum Materials and Supplies		x									x			x			x			x										
Academic Coaches attend NIFDI DI Trainer/Coaching Institute		x	x		x							x			x			x												
Conduct pre-service training for all treatment staff		x		x								x			x			x			x									
Conduct Site Reviews (FOI)		x	x			x	x		x		x			x		x		x		x		x		x						
Meet with stakeholders to review Site Review FOI data	x	x	x	x	x	x	x					x		x		x		x		x		x		x						
Meet with stakeholders to review Curriculum Data	x	x	x	x	x	x	x						x	x		x		x		x		x		x		x				
Hire Developmental Contultant (BCBA)		x									x																			
Compile and Review Results of Standardized Assessments	x	x	x	x	x	x	x				x			x			x			x			x			x				
Administrator 1 Day Training (NIFDI+SCPS)		x	x	x							x			x			x			x										
Meet with Stakeholders to Review State Assessment Data	x	x	x	x	x	x	x				x			x			x			x			x			x				
Present Project @ Professional Conf.		x		x							x		x	x		x	x	x		x	x		x	x	x	x				
Apply to state meeting agendas		x									x			x			x			x			x							
Complete List of Annual Results		x		x																x						x				
Complete Full Evaluation and Lessons Learned		x		x																										x
Complete Academic Manuscript		x		x											x			x			x			x						
Submit Final Mauscript to WWC/ERIC/Journals		x																												x
Quarterly Meeting with RMC		x		x				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Finalize Sections of ESECP Manual	x	x	x								x			x			x			x			x							
SCPS Sustainability Plan Development	x	x																	x						x					

(C.2)*Qualifications of Key Personnel* -The district has selected a team of personnel who have the expertise and professional capacity to implement the major activities of this project with fidelity.[Resumes are included in Appendix B.]SCPS district executive leadership have confirmed school participation and their commitment in support of the EIR ESECP for the five year grant period across all targeted schools. Enclosed is a letter of commitment outlining their affirmation of the ESECP project initiatives and collaboration with principals to ensure appropriate student support. All elementary school principals have been informed about the grant application. As a part of the pre implementation checklist, each school administrator will sign a letter of support outlining the roles and responsibilities of the school and project staff. Roles, responsibilities, and qualifications of each key personnel are included in the ESECP Project Timeline and Table 4 below.

Table 7. *ESECP Project Personnel*

Key Personnel and Other Significant Project Staff	Role	Qualifications
Dr. Michelle Walsh	Executive Director of Exceptional Student Support Services. Coordinate with Project Manager. Responsible for dissemination of formative and summative data to executive leadership. Approve policies and sustainability plan.	PhD in Education Leadership
Sandra "Michelle" Guffee	Project Manager- Oversee all aspects of ESECP implementation as described in the goals and objectives, coordination with district, and grant partners. prepare annual reports, Attend USED meetings	Board Certified Behavior Analyst since 2010 Certified ESE and Elementary Education Teacher since 2004 Project manager for all current ESECP efforts.
Dr. Stephen Meyer and Dr. Emma Espel	Co-Lead Investigators-Prepare evaluation plan, communicate with SCPS project leadership, conduct winter and spring data collection visits, prepare annual report, share evaluation findings. Attend USED meetings	Stephen Meyer- PhD in Education (Measurement, Evaluation, and Statistical Analysis) Emma Espel- PhD in Developmental Psychology, What Works Clearinghouse Certified Reviewer.
Behavior Analyst (1) and Teacher on Assignment (3)- TBD	Provide Training and Consultation in ESECP classrooms to ensure fidelity of implementation.	Board Certified Behavior Analyst (BCBA) and Certified Teachers with Direct Instruction Teaching Experience

(C.3) Continued Support: As outlined within the goals table (Appendix I) Part 3-*Goal 9*

implement a sustainability plan districtwide, the ESECP project will take a dynamic approach in

establishing sustainable methods, resources, and relationships that are consistent with ESECP

programing. SCPS has demonstrated the ability to secure funds to support the implementation of

the ESECP as evidenced by the self-funding of all aspects of the current *pilot* implementation.

The district is committed to providing an opportunity for ongoing capacity building and

consistency of student support and resources for students SWD through a sustainability plan. The

sustainability plan will include a five-year post grant plan to sustain the whole school approach

at treatment schools and onboard any interested non-treatment elementary schools as funds are

available (objectives 9.2 and 9.3). Costs associated with curriculum materials and staffing will be

assumed by the individual schools (consumable materials), and the district (new treatment

schools) as local or external funds are available for this purpose. SPCS anticipates the ability to

continue to fund the project manager to implement through the sustainability period. Parent

training initiatives will be sustained through ongoing support by the following partnership -

University of Central Florida's Center for Autism and Related Disabilities (UCF-CARD)

(Appendix C).

D. Quality of the Project Evaluation *(D.1) Methods for Generating Rigorous Evidence of*

Project Effectiveness - RMC Research Corporation will conduct the evaluation with a team led

by two certified What Works Clearinghouse (WWC) reviewers, Dr. Stephen Meyer and Dr.

Emma Espel. Stephany Brown will lead formative evaluation activities. RMC Research is well

qualified, serving as a partner in three Regional Educational Laboratories (RELs), and bringing

over 40 years of experience conducting rigorous evaluation projects funded by the Institute of

Education Sciences, the National Science Foundation, state education agencies, and others.

The evaluation will include a summative quasi-experimental design (QED) study of impact on students designed to provide evidence that meets *WWC Group Design standards with reservations,* a mixed methods formative component focused on measuring fidelity of implementation to inform continuous improvement, and dissemination strategies to provide guidance about ESECP strategies that may be suitable for replication in other settings. Findings may also be used to inform evaluation of related initiatives or research conducted as part of a subsequent EIR mid-phase grant. The implementation strategy maximizes opportunities for continuous program development and improvement based on formative evaluation feedback and data about fidelity of implementation while providing data for a rigorous study of impact. The following questions will guide the evaluation:

		Evaluation Questions	Associated Project Goals
Fidelity		(1) To what extent is the ESECP implemented with fidelity in participating schools and classrooms over time?	Goals 1, 2, 3
		(2) How does the ESECP implementation fidelity vary according to characteristics of teachers and schools?	
		(3) What factors serve to facilitate or impede ESECP implementation?	
Impact	Confirmatory	(4) How does the ESECP affect student academic outcomes (oral language skills) after one year of participation?	Goal 6
	Exploratory	(5) How does the ESECP affect other student academic outcomes (e.g., performance on district- and state-administered assessments) after one year of participation?	Goals 4, 5, 6, 7, 8, 9
		(6) To what extent does the ESECP affect teacher retention, practice, and satisfaction?	
		(7) To what extent does the ESECP affect parent involvement in schooling and parent satisfaction?	
		(8) How does the impact of the ESECP change over time?	
		(9) How are the effects of participation in the ESECP mediated by the nature and extent of implementation and by interim measures of student progress (e.g., school attendance)?	
		(10) How does implementation of ESECP change for each school over time, how does ESECP disseminate research findings, and how does SCPS transfer responsibilities for independent sustainability of activities within each school?	
	Subgroups	(11) How does the impact of the ESECP vary for student subgroups (e.g., primary exceptionality, socio-economic status, students on the developmental vs. academic route, gender, race/ethnicity, grade level) and by characteristics of teachers and schools (e.g., teacher experience, aggregated student demographics)?	Goal 6

Impact Evaluation. For this QED, confirmatory impact analyses will focus on outcomes after one year of participation in the ESECP. Supplemental analysis of outcome data collected from intervention and matched comparison students during each year of the study will allow for examination of program impact after multiple years of receiving the intervention and longitudinal growth of intervention students. Between two and four elementary schools will begin implementing the ESECP during each of four academic years resulting in a total of 13 intervention schools by 2023/24. While SCPS and RMC Research considered a school-level random assignment design, we determined that the proposed QED study better aligns with available resources to support implementation by using a cohort design with incremental addition of intervention schools. *Matched Comparison Students.* Comparison schools will be drawn from SCPS elementary schools that have not implemented ESECP and are on the wait-list for implementation within five years. SCPS anticipates no challenges related to comparison school recruitment based on ongoing contact with district schools. Propensity score matching (PSM) will be used to identify matched students in similar comparison schools not implementing the ESECP during each of four years of ESECP implementation. Comparison students include ESE students in Grades K-5 who receive instruction as usual at comparison schools. Students will be matched at baseline using data collected in spring of the prior academic year including: prior achievement and attendance, and student characteristics (including primary exceptionality, grade level, gender, race/ethnicity, and free or reduced-price lunch eligibility). School characteristics will also be included (such as percent of students eligible for free or reduced-price lunch, race/ethnicity, English Learners, enrollment, and academic performance). During each year, the number of schools from which comparison students will be selected will be greater than the number of intervention schools to provide a larger pool of students who can be matched

(and thereby increase the probability of strong matches). Logistic regression will be used to create a propensity score for each student and models using nearest neighbor and a strict caliper will help ensure strong baseline equivalence, with a goal of no characteristics of interest differing by more than 0.25 standard deviations at baseline in accordance with WWC standards. *Sample and Power Analysis.* The implementation strategy and anticipated school and student samples are summarized in Table 8. We expect the primary analytic sample for confirmatory impact analyses to include approximately 2,060 ESE students in Grades K-5 (half of whom are ESECP intervention students), with an average of 79 students per school. To the extent possible, new comparison schools (from which comparison students will be drawn) will be selected each year. Students will not be included in multiple cohorts; once they are included as a match, they will remain a single unit. This approach minimizes contamination bias but maximizes the sample size to have sufficient power to detect a medium effect size.

Table 8. *Implementation strategy and anticipated school and student samples*

	Y1 (2020/21)	Y2 (2021/22)	Y3 (2022/23)	Y4 (2023/24)	Total
Intervention sites (number of new schools each year)	2 schools (138 students)	4 schools (288 students)	4 schools (327 students)	3 schools (277 students)	13 schools (1,030 students)
Schools from which matched comparison students will be drawn	4 (of 16 not implementing)	6 (of 12 not implementing)	6 (of 8 not implementing)	5 (of 5 not implementing)	5 that remain comparison through 2023/24
Anticipated analytic sample of students	276	576	654	554	**Recruited sample** 2,060 (1,030 intervention and 1,030 comparison) **Analytic Sample with 10% Attrition** 1,854 (approximately 927 intervention and 927 comparison)

Power analysis conducted using Optimal Design (Spybrook et al., 2011), accounting for 10 percent attrition (and with the following parameters: 71 students per school in the intervention or comparison condition, $\alpha = .05$, $R^2 =.79$, ICC=.13[3], power = .80), suggests that the proposed design yields a minimum detectable effect size of 0.29.[4] ***Analyses.*** Baseline equivalence will be assessed on student demographic characteristics and pre-test measures. Any characteristics demonstrating non-equivalence (defined by the WWC as between 0.05 and 0.25 standard deviations) will be included as covariates in impact analyses. A series of two-level hierarchical linear models (HLM) will be used to assess impact on student outcomes with students nested within schools. The models will account for school-level condition (intervention or comparison), pre-test scores, school, cohort, and any characteristics that were not equivalent at baseline.

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[3] Design parameters including the ICC and R^2 were selected based on the national probability sample of Kindergarten reading achievement from the Early Childhood Longitudinal Study in urban settings in the southern region of the United States (University of Chicago Center for Advancing Research and Communication, n.d.).

[4] No studies of this intervention or substantially similar interventions exist to inform an expected effect size. Studies that include components of this intervention with similar outcome measures find relatively high effect sizes, however. For example, a recent meta-analysis of interventions using Direct Instruction found an average effect size of .54 for student language outcomes (Stockard, Wood, Coughlin, & Khoury, 2018). A meta-analysis of the effects of Tier 2 type elementary reading interventions for students found effect sizes on standardized and unstandardized foundational and language/comprehension measures to be relatively large, ranging from .36 to 1.02 (Wanzek, et al., 2016).

Impact on WJ-IV scores will be examined in the confirmatory impact model and other student outcome measures will be examined in supplemental exploratory models. Exploratory models will also be used to examine longitudinal growth and impacts on students who have participated in the intervention for up to four years. (D.2) *Effective Strategies for Replication* - The project team will meet at least quarterly to review progress on the evaluation and discuss informal feedback related to continuous improvement. RMC Research will provide formative evaluation reports annually to project leadership, with a focus on preliminary student outcome data, implementation fidelity and adherence to minimum thresholds, challenges to be addressed, potential for gradual release of program responsibilities to individual schools, and emerging best practices that may be shared. RMC Research and SCPS will share selected findings with SCPS stakeholders to facilitate continuous improvement and will document best practice implementation strategies for replication or testing in other settings. RMC Research and SCPS will also develop at least three brief reports of findings for external audiences to share information about project implementation and outcomes and increase the potential for ESECP strategies to be replicated and tested in multiple settings. The first report will focus on findings from qualitative data collected in Year 1, providing detailed information about ESECP implementation, development of fidelity measures and meaningful implementation fidelity thresholds, and initial lessons learned. The second report will use quantitative data from Years 2 and 3 as the basis for exploratory analyses relating aspects of ESECP implementation to outcomes for ESECP participants. This report is expected to provide initial evidence that may be used to highlight promising strategies that may be suitable for replication. The third report will present results from the proposed impact study, using data collected during Years 1 through 4.

This report will document the impact of ESECP participation, suggesting aspects of implementation associated with stronger outcomes, students for whom outcomes are strongest, and contexts in which ESECP is most effective. The third report will also summarize progress toward sustaining ESECP, lessons learned, and practices that may inform replication of promising ESECP strategies. (D.3)*Valid and Reliable Performance Data* - Student outcome data will be collected in spring of each year for all intervention and potential comparison students from spring 2020 through spring 2024. Student outcome measures include widely-used assessments with evidence of reliability and validity. Specific assessments are described earlier in the proposal and include standardized measures of oral language, reading, and mathematics proficiency. Student attendance data will be collected from administrative records. Qualitative data will be collected in the spring of each year from members of all stakeholder groups (students, parents, teachers, school administrators, district administrators, and project leaders) using observations, interviews and focus groups. Surveys of participating teachers, parents will be administered annually. Administrative data from the district will be collected about information such as teacher retention, student performance on district and state assessments, and student attendance. Meeting notes, training materials, implementation records, and related documents will be collected from project stakeholders with support from project leadership. Interviews, focus groups, and parent and teacher surveys will be used to document teacher and parent participation in and satisfaction with professional development and training activities, and teacher implementation experiences, challenges, and suggestions for improvement. During Year 1, the evaluation team will collaborate with SCPS to develop the teacher survey and qualitative evaluation instruments based on existing tools with evidence of reliability and validity.

The Florida Department of Education administers an annual parent satisfaction survey related to ESE services and FL DOE priorities for parent involvement. Results by school are available in fall of each academic year for the prior year. Prior survey response rates average about 13 percent in SCPS.[2] The project team will develop annual recruitment initiatives to increase response rates such as announcements, emails, and flyers. During Years 2-5, interviews and focus groups with ESECP leaders and key stakeholders at each site will provide information about the opportunity for transfer of project responsibilities to individual schools, sustainability of initiatives, and information about possible strategies suitable for replication. Formative assessments will occur twice per year and findings will be used to recommend adjustments to implementation as needed. (D.4)*Evaluation of Project Implementation* - Fidelity of implementation to the ESECP model will be formally assessed twice annually using the ***ESECP Site Review Form***, a project-specific checklist designed to assess implementation fidelity, with a separate version for academic and developmental classes. Teachers are expected to demonstrate adherence to a minimum of 80 percent of composite implementation components and each sub-component (e.g., classroom organization, classroom environment, arrangement of instructional materials and materials organization, and data systems). The fidelity checklist addresses quantity (e.g., student schedules must include intervals of 30 minutes or less) and quality (e.g., 75% of all intervals must correlate with instructional targets). The form has been used for 3 years in over 40 classrooms and a recent analysis showed high (90%) interobserver agreement. During Year 1, reliability and validity of the ESECP Site Review form will be established through expert review and analysis of inter-observer agreement.

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[2] http://www.fldoe.org/academics/exceptional-student-edu/parent-info/exceptional-student-edu-parent-survey.stml

RMC Research will work with SCPS program experts and draw upon existing strategies (e.g., Century, Rudnick & Freedman, 2010; Fixsen Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Hulleman & Cordray, 2009) to ensure that fidelity thresholds are meaningful and to develop a reliable composite fidelity index that includes Site Review Form ratings, and ensures each activity included in the program logic model is included. This index will be used to identify sites that are not meeting recommended usage; provide initial correlational evidence of the relationship between fidelity and student outcomes to reinforce the empirical basis for the threshold; inform continuous program improvement; and communicate optimal thresholds for fidelity of implementation for possible replication sites. It will also be included as a potential mediator of the relationship between ESECP participation and student outcomes. Dosage will be measured for each student as: (1) the total number of minutes of each type of instruction, and (2) the number of completed lessons by students using the *ESECP Lesson Progress Chart*, which is a daily record of the lessons in which each student is engaged.

Analyses. Descriptive and correlational analyses of fidelity data will be used to characterize implementation fidelity over time and to assess the relationship between implementation fidelity and (1) characteristics of teachers and schools, and (2) project outcomes. Interaction terms will be used in impact models to examine how student, teacher, and school characteristics may interact with the intervention and lead to weaker or stronger student outcomes for student subgroups or among schools and teachers with particular characteristics. In addition to implementation fidelity, likely moderators to be examined include student primary exceptionality, socio-economic status, participation in developmental vs. academic classes, gender, race/ethnicity, grade level, and teacher experience with students with disabilities.

Mediation models will test the influence of interim outcomes (e.g., attendance), lesson progress feedback, and teacher practice and satisfaction as mechanisms by which the intervention may impact academic achievement. Parent and teacher survey data will be analyzed using basic descriptive statistics and non-response bias will be assessed using administrative district data. Repeated measures Analysis of Variance (ANOVA) will be used to examine change over time, focusing on teacher practice. Exploratory analysis of longitudinal student outcomes will also use this approach to examine growth in outcomes beyond the first year for intervention students, and differences in outcomes between intervention and comparison students who have received the intervention for multiple years (with subsamples of participants with data for two, three, or four consecutive years). Qualitative data collected through interviews, focus groups, observations, and document analysis will be analyzed for trends and will serve to triangulate findings from the impact study as well as provide formative feedback using a well-defined approach (Miles, Huberman, & Saldaña, 2014).