Tertiary First Step to Success
(R324A090237)
Final Performance Report
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Section A. Project Objectives and Related Performance Measures Data

Project objective #1: Develop manual for the Tertiary First Step intervention including detailed processes and procedures for implementation.

The Tertiary First Step Resource manual has been completed, and are available at http://firststeptosuccess.org/resources.html; (Frey, Walker, et al., 2013) The following is a summary of the developmental history of our manualization process.

1st Iteration (Fall 2009/Spring 2010). After attending the EcoFit training, led by the Tom Dishion & Beth Stormshak of the University of Oregon, we developed a first draft of the Tertiary First Step manual, which was referred to as a "Roadmap" of guidelines/protocol for the home component of the First Step intervention. It was largely conceptual, proposing to implement a modified version of the Family-Check-up interviews prior to the existing First Step homeBase curriculum: 1) Initial intake interview, 2) Ecological assessment, 3) Feedback and motivation, and 4) Action planning and teacher consultation. At this point, we envisioned developing a distinct version of the intervention, and referred to it as "Tertiary First Step to Success". We were interested, however, in applying the interviewing skills found in the motivational interviewing literature very systematically although we were not entirely sure how at this stage of the development process. Thus, Tertiary homeBase consisted of 2 modules: Family Check-up and Parent Training, which was part of the curriculum from the original home component of First Step (i.e., homeBase).

2nd Iteration (Summer 2010). In the 2nd iteration of the manual, we made substantial changes to the Tertiary homeBase procedures, added new procedures to the school component (CLASS) based on a motivational interviewing approach, and began documenting modifications to the CLASS procedures (for tertiary level students) that were implemented consistently with the study participants.

First, changes to the Tertiary homeBase component included aligning the resources (e.g., parenting tip sheets and assessment tools) from our Family Check-up module with the original First Step curriculum, which includes 6 topical sessions critical to early school success. We also individualized the curriculum structure and promoted autonomy in the parent training module by providing the option of choosing from the 6 topical sessions, or developing a behavior intervention plan with the coach (and not implementing the entire original First Step curriculum). At this point, we believed the application of motivational interviewing was very different across the two homeBase modules (i.e., Family Check-up and Parent Training), and were not sure if coaches should be expected to use motivational interviewing strategies during the parent training module.

Another significant development in the 2nd iteration was the addition of a modified version of (Reinke, Lewis-Palmer, & Merrell, 2008) Classroom Check-up (CCU) intervention to the CLASS procedures. The CCU uses a motivational interviewing approach to facilitate teacher's adoption of effective classroom management strategies. The procedures were relevant to the First Step intervention, which is based on principles of positive behavior support. We made some modifications to the original procedures initially. Specifically, the CCU required daily data collection, and teachers were provided graphic representations of the extent to which they provided general or specific attention to desirable or undesirable behavior; our version reduced the frequency of data collection, and we capitalized on all we had learned about the application of specific motivational interviewing with families by formalizing what would eventually become known as a debriefing interview.

The modifications to the CLASS intervention for more severely impacted children were fairly straightforward. Some of these modifications had been implemented in prior First Step studies, but never documented. Other strategies were new, likely the result of implementing the intervention with a more severely impacted population than had previously been the case, and in self-contained settings where all children experience behavior disorders. The modification include those for all children who present at the tertiary level at screening (i.e., Functional Behavioral Assessment), as well as modifications that are the result of individual child characteristics or poor parent or teacher implementation fidelity for the home and school components, respectively.

Rather than thinking of our work as a "version" of the intervention, we began to discuss the three components described above- 1) Tertiary homeBase, 2) First Step Classroom Check-up, and 3) modifications to the CLASS intervention for tertiary-level students- as enhancements that could, but did not have to be implemented in an all or nothing fashion.

We also became very interested in, and attuned to, just how different the application of motivational interviewing was in school and home settings than it was in the medical and substance abuse fields. Specifically, we were implementing motivational interviewing within an indirect model, whereby the referral is related to the child's behavior, which represents a more distal outcome than is the case in a direct service delivery model. In order to use the directive aspect of motivational interviewing, the identification of target behaviors is critically important and in the medical and substance abuse fields are easily conceptualized (e.g., over eating, excessive drinking, use of elicit drugs). Our focus on parenting and teaching behaviors required a far more generalized conceptualization of the target behavior than is the case in these direct service applications. Finally, we posited that the feedback routine was very different in our "check-ups", compared to those in substance abuse and medicinal applications, largely because normative data on parenting and teaching behaviors of interest were not available, and because we were envisioning motivational interviewing strategies to be implemented during the parent training component rather than "tuned off" after the parent committed to the educational component. As a result of these challenges, we began working on a tool to assist our coaches to select from different motivational interviewing strategies at different points during the intervention process, a term our team referred to as navigation.

3rd Iteration (Summer 2011). Encouraged by our initial implementation efforts and feedback from our national advisory committee, our procedures were expanded into a curriculum format. This forced us to think about the organizing structure for the Enhanced homeBase and First Step CCU processes. Neither the existing Family Check-up, the CCU, nor anything in the motivational interviewing literature was helpful in conceptualizing our process. We began to redesign the tool we had recently developed to assist our coaches choose among the many available MI strategies and navigate the interview process. This tool became a conceptual framework, referred to as the Motivational Interviewing Navigation Guide (MING; (Frey, Lee, Small, et al., 2013a), and was organized around 4 motivational interviewing goals based on the (Moyers, Martin, Manuel, Miller, & Ernst, 2007) eight stages of learning motivational interviewing, with 2 objectives nested in each goal. We aligned one interview or home visit with each goal, and created resources and tools to help our coaches achieve these objectives. During this revision, we eliminated the 2 module conceptualization of the homeBase enhancement (i.e., First Step Family-Check-up and Parent Training) because our version now bore little resemblance to the ECOFit intervention or other check-up's from the medical or substance abuse fields, and because we determined our coaches used motivational interviewing throughout the intervention, not just prior to parents committing to changing their parenting practices.

4th Iteration (Spring 2012). In the 4th iteration of the manual, we made a number of changes to the Tertiary homeBase and First Step CCU protocols. Many of these changes were the result of reorganizing the MING, and using the 5 universal principles as our "target behaviors" to be addressed across the home and school applications. The MING was now changed from a conceptual guide to a 5-step process that could be used by coaches in home or school settings to increase intrinsic motivation for adopting and implementing evidence-based practices. The primary purpose of the MING was for use in our intervention development efforts relying on the motivational interviewing approach. During the spring of 2012, the 5 steps of the MING process included: 1) conduct values and current practices assessment, 2) collect fidelity data, 3) share performance feedback, 4) offer extended consultation, education, & support, and 5) provide closure. This conceptualization allowed us to articulate all of our intervention procedures with far greater precision than was previously the case, and allowed the procedures and tools across the home and school components of the intervention to be structurally identical. Greg Fosco and Terri Moyers reviewed and provided extensive feedback on the 4th iteration of the manual in March 2012.

5th Iteration (Fall 2012). In the fall of 2012, a new addition of the motivational interviewing text (W.R. Miller & Rollnick, 2012) was released. The conceptualization of MI was modified fairly substantially, and a number of changes in the manual were required to align with MI-3. Additionally, we infused the Elicit-Provide-Elicit framework --a process for providing feedback and education--in the Teacher and Parent Current Practices interviews. Additionally, we changed "fidelity assessment" to "current practices assessment" for teachers and parents, and separated it from Step 1 of the MING process. Further, we added alternative options for parents who were uncomfortable with use of a video recorder (audio, notes only), and integrated the parent value cards into parent

feedback interview. Prior to this point, we were focusing primarily on 2 of the 5 universal principles. This focus was expanded, which impacted the manuals in a variety of places. We also created a responding to change talk primer, and fortified our procedures to determining strong and weak implementers; specifically, we made clear this determination is based on the clinical judgment of the coach as our measurement systems were not precise enough to make evaluative judgments and the coach often took into account knowledge acquired outside of the observation. Finally, we added a program integrity section.

After 3 years of deliberation on the naming and framing of the components of the First Step intervention being developed in the context of this project, we finalized our naming structure as follows. The manualization effort was revised consistent with this framing and naming system.

Tertiary First Step includes three components of First Step that have been enhanced for children with extremely challenging behavior. The first includes screening procedures for identifying appropriate participants. The second, Tertiary CLASS, is very similar to the original CLASS intervention, but includes modifications often necessary for successful implementation with tertiary-level students. Finally, Tertiary homeBase, the home component, is an adaptation of motivational interviewing. Separating the Tertiary First Step and First Step CCU required substantial reorganization and modification of languaging throughout the document.

Screening. Screening children to determine the most applicable variation of the First Step intervention for their participation is an important process and supports the likelihood of positive outcomes for the focus child and the family. There are two decision models for determining when to apply Tertiary First Step. They are the triage model and the response to intervention model. In the triage model, it is clear from the outset that a short-term, secondary prevention program like First Step would be insufficient to address and resolve the student's problems. In the response to intervention model, it is less clear initially whether a student should be assigned immediately to the secondary or to the tertiary-level First Step variation. In such cases, it may be advisable to first try the original First Step intervention (i.e., secondary variation) to see how well the student responds and use this information to determine which option is most appropriate going forward.

Tertiary CLASS. Modifications to the CLASS school intervention component for tertiary-level students have been developed to address the needs of students with severe behavioral challenges. There are strategies for all students identified as having serious, tertiary-level challenges, and there are additional strategies for students who still experience two recycle days within the first 10 days of the CLASS program.

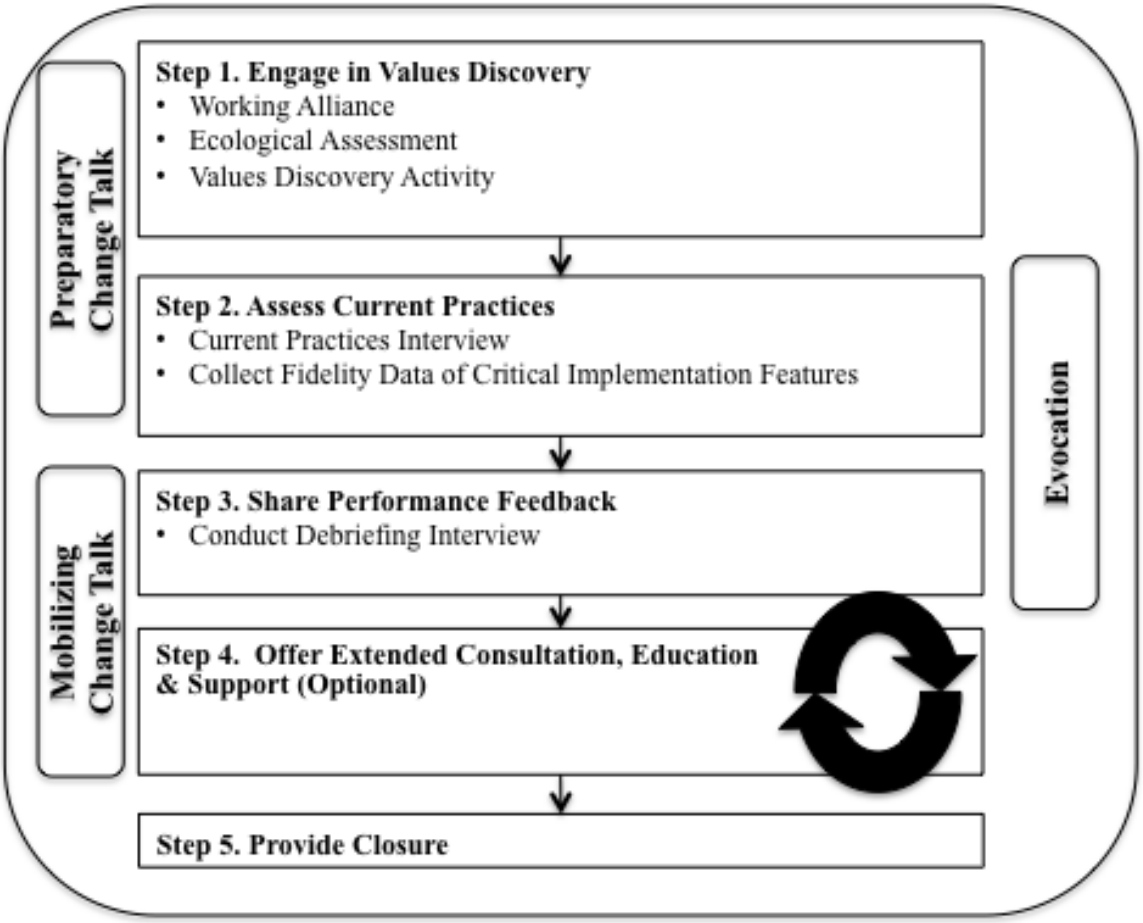
Tertiary homeBase. Tertiary homeBase typically takes two to six 60-minute sessions (i.e., home visits). During the homeBase intervention, parents are encouraged to modify their parenting practices consistent with one or more of the five universal principles of positive behavior support that are central to the First Step intervention.

These principles are: (1) establish clear expectations; (2) directly teach the expectations; (3) reinforce the display of expectations; (4) minimize attention for minor inappropriate behaviors; and (5) establish clear consequences for unacceptable behavior (Sprague & Golly, 2013). Tertiary homeBase comprises primers, a curriculum, program integrity tools, and a troubleshooting guide. The primers support the coach in the implementation of skills necessary to implement the intervention with integrity. The curriculum provides procedural guidelines and resources to implement the intervention steps completed by the coach, in partnership with the parent. These steps correspond to those detailed in the MING. Program integrity tools are provided to ensure the program is implemented as intended. Articulated in this manual are tools related to case conceptualization, procedural fidelity, and motivational interviewing proficiency, and are recommended as guides, not prescriptive measures. Additionally, this section of the manual contains an index of videos that support the training and supervision of implementers. Finally, the troubleshooting guide provides suggestions for addressing difficulties that may be occur when implementing Tertiary homeBase.

Additional products have been generated through this innovation and development grant. These products were originally envisioned as only applicable to the Tertiary First Step intervention. These include: (1) MING, (2) the Motivational Interviewing Training and Support (MITS) professional development module, and (3) First Step Classroom Check-up (CCU). As our innovation and development work progressed, the generalizability of these tools for other applications became apparent. In 2011 and 2012 we submitted proposals to IES to conduct an efficacy study on TFS. The first was scored, the second was not. In October 2013 we will be submitting an R01 application to NICHD to conduct this efficacy trial.

MING. The MING, described previously, is a process for increasing intrinsic motivation to adopt and implement evidence-based practices within integrity in school settings (see Figure 1). The MING provided the theoretical support to develop Tertiary homeBase and the First Step CCU.

Figure 1. Motivational Interviewing Navigation Guide



MITS. The MITS is a training and support module for school personnel (e.g. school psychologists, school social workers, school counselors, behavior specialists, resource teachers). It consists of i) fifteen hours of professional development focusing on the knowledge and skills that are critical to implementing MI within educational settings ii) two, 1-hour school-based team training sessions that include watching and discussing audio- and video-recorded examples of teacher consultations utilizing an MI approach i.e. the MING in educational settings and iii) three individual supervision sessions with expert consultation. The MITS was developed in Fall 2012, pilot tested with 12 early childhood consultants in early 2013, and subsequently revised based on the data collected. This pilot project resulted in the adaptation of several instruments to measure MI skill of school personnel and a promising training curriculum, which will be used to train TFS coaches in the future. Descriptions of the measures are provided below.

- *The Motivational Interviewing Knowledge and Attitudes Test for School Based Applications* (MIKAT-SBA; (Lee, Small, & Frey, 2013a) was modified from Leffingwell's (Leffingwell, 2006) work. The MIKAT-SBA is a ten-item quiz that assesses knowledge of MI using true-false and matching question. Scores range from 0-20 with higher scores representing greater knowledge.

- *Written Assessment of Simulated Encounters- School-Based Application* (WASE-SBA; (Lee, Small, & Frey, 2013b) was modified from Miller, Hedrick, and Orlofsky's (William R. Miller, Hedrick, & Orlofsky, 1991) *Helpful Responses Questionnaire.* The WASE-SBA consists of six paragraphs that simulate conversations with teachers who have specific concerns. Coaches are prompted to generate written responses consistent with MI skills.

- *The Video Assessment of Simulated Encounters – School-Based Applications* (VASE-SBA; (Lee, & Frey, & Small, 2013)) was modified from Rosengren, et al.'s (Rosengren, Baer, Hartzler, Dunn, & Wells, 2005) Video Assessment of Simulated Encounters- Revised. The VASE-SBA utilizes 18 video recorded portrayals of teachers commenting on specific concerns. Coaches are prompted to generate written responses consistent with MI skills.

These measures, as well as a summary of the results of the pilot test are included as attachments in Section C of this final report. In October 2013, we will submit an R21 to NICHD, to convert this training to online format, the first step towards a national center on training school personnel to use MI. Additionally, we have submitted two abstracts to a special issue of Advances in School Mental Health Promotion based on this work.

First Step Classroom Check-up. The First Step CCU is an adaptation of Reinke et al.'s (2008) classroom check-up. In the First Step CCU, we have leveraged the principles and practices of motivational interviewing (and the Motivational Interviewing Navigation Guide) to increase teachers' motivation to integrate the five universal principles of positive behavior support (Sprague & Golly, 2012) into their classroom management strategies (i.e., classroom management practices and teacher behavior).

First Step CCU is typically completed in 2-3 brief interviews with the teacher in the classroom. Teachers are encouraged to modify their classroom management practices and behavior to conform to the five universal principles of positive behavior support.

The First Step CCU was developed and a pilot test completed (Lee et al., In Press) as part of an IES-funded project to create a First Step variation for students requiring tertiary-level support. It was developed, implemented with approximately 30 teachers, and revised continuously from 2010-2013. To date, it has only been implemented in conjunction with the tertiary version of First Step, where we believe it is most appropriately applied, given its current state of development. However, as a tool to improve implementation fidelity of evidenced based practices, we also believe with further development, there may be additional applications for teachers in authentic educational settings.

To account for the unique needs of teachers, classrooms and educational settings the First Step CCU is described in a separate manual made up of screening procedures, primers, a curriculum, program integrity tools, and a troubleshooting guide. The primers help support the coach's application of MI skills that are necessary during the intervention process. This manual also stands on the shoulders of the MING, and mirrors the steps of the MING (and Tertiary homeBase): (1) engage in values discovery; (2) assess current

practices; (3) share performance feedback; (4) offer extended consultation education and support; and (5) provide closure. Program integrity tools are meant to ensure the program is implemented as intended. The tools are related to case conceptualization, procedural fidelity, and motivational interviewing proficiency. These tools are recommended as guides, not as prescriptive measures. Additionally, the program integrity section contains a list of videos that support training and supervision of implementers that are available upon request. The troubleshooting guide at the end of this manual provides suggestions for difficulties that may arise when implementing the First Step CCU.

The First Step CCU is an implementation tool to pre-correct for poor classroom management practices and teacher behavior that can hinder the fidelity of the CLASS component. The CCU identifies classrooms where implementation of First Step may be challenging due to insufficient classroom management practices and improves these before the CLASS intervention begins with the target student. The 20-minute Teacher Observation of the Universal Principles and the Universal Principles Overview and Assessment are used to assess the teacher's proficiency in applying the universal principles (with all students). This information is used to determine if the First Step CCU procedures are implemented prior to beginning CLASS. Following the observation, the coach calculates the ratio of the teacher's attention to appropriate versus inappropriate behaviors and completes the assessment independently (i.e., without consulting or sharing the results with the teacher). If the teacher's ratio is 4:1 or above, and the coach rates the teacher "well enough" or "very well" on each of the indicators of the five universal principles, then begins the CLASS component of the First Step intervention. If the ratio is less than 4:1 or better and one or more of the universal principles receives a rating lower than "well enough," the coach should implement the First Step CCU procedures described in this manual. These decision points are supported in the professional literature, but require validation.

The First Step CCU manual is available at http://firststeptosuccess.org/resources.html. We hope it will become the focus of future IES-funded work.

6nd (and final) Iteration (Spring 2013). For our last iteration, we contracted with a professional editor and a graphic designer to improve the readability and aesthetics of the manual.

Program objective #2: Recruit 4-6 elementary schools and 40 child-teachers dyads (grades k-3) to participate in the Tertiary First Step intervention

We recruited over 50 child-teacher dyads to participate in the Tertiary First Step intervention. Nine dyads from 3 schools participated during our pilot study (2009-2010). During our feasibility trial (2010-2012), we recruited, consented, and began interventions with 41 child-teacher dyads. A complete description of our recruitment procedures follows, including a description of the comparison group that was recruited in year 3 (but not proposed in our application).

After obtaining IRB approval for the study from the University of Louisville, project staff recruited teachers across two cohorts to participate in a feasibility study of the Tertiary First Step to Success intervention. We used a two-step process incorporating teacher and parent report to identify students eligible for inclusion in the study. At step 1, teachers identified five students within their classrooms who were at elevated risk for externalizing behavior-using gates 1 and 2 from the Systematic Screening for Behavior Disorders (SSBD; (H. Walker & Severson, 1990)). We then used the SSBD stage 2 data to (a) identify the students who met SSBD criteria, (b) rank order students within classrooms in terms of severity, and (c) target the highest ranked student in each classroom. At step two, we collected the externalizing scale of the Child Behavior Checklist (CBCL; (Achenbach, 1991)) from the parents of the highest ranked student to verify the child's behavior across school and home settings. If the student met criteria on the parent-reported CBCL (T Score > 60), we recruited the family to participate in the study. Thus, for each classroom, the highest ranked student who met SSBD screening criteria *and* CBCL screening criteria was eligible to participate in the study. If the highest ranked student on the SSBD did not meet CBCL criteria, we repeated the process with the next highest rank student in the classroom. As an incentive, we provided teachers and parents $20 to complete the screening process.

We recruited teachers for the Tertiary First Step intervention across two cohorts during the 2010-2011 and 2011-2012 school years. Participating teachers were from ten elementary schools in Kentucky and Indiana. Seventy of 78 consented K-3 teachers (90%) participated in SSBD screening, completing gates 1 and 2 for 268 students. Of the 70 teachers completing screening, 33 (47%) had an eligible consented student who participated in the study and completed the intervention. For the remaining teachers, we were unable to identify (n = 14) or obtain consent for a student who met full inclusion criteria (n = 23). Eight dyads who did not meet the full screening criteria or moved during the study (attrition) were also provided intervention services.

During the 2011-2012 school year research staff recruited teachers for a quasi-experimental comparison group to examine between-subject effects and control for potential history effects that could not be addressed in the within-subject design of the original feasibility study. We utilized the same screening and inclusion criteria for the comparison classrooms. Thirty teachers completed SSBD gates 1 and 2 for 149 students. Twenty-six of the 30 classrooms (86.7%) had at least one student who met SSBD eligibility criteria. Twenty-two students met full inclusion criteria (i.e. SSBD and CBCL criteria described above). For the remaining 8 classrooms students did not meet inclusion criteria (n = 4) or project staff were unable to recruit the family to participate (n = 4). We have had two articles accepted for publication based on this study (Frey, Lee, Small, et al., 2013b; Lee et al., In Press), and two are currently under review (Frey, Lee, Small, Walker, & Feil, 2013; Frey, Small, et al., 2013).

Program objective #3: Develop fidelity measures to evaluate the implementation of the Tertiary homeBase component.

We used two measures of fidelity to evaluate the implementation of the Tertiary homeBase intervention. Measures of the school component from the original First Step intervention were also implemented but are not described here. The first Tertiary homeBase measure, The Coach Checklist**,** measures coaches' adherence to the intervention procedures. Specifically, coach's self-report which of the 5 intervention steps the coach completed with the caregiver, the number of home visits required to complete the step, and which of the intervention resources were implemented.

The second measure is an adapted version of the Motivational Interviewing Treatment Integrity Code (MITI; Moyers et al., 2007). The MITI served as an indicator of implementation quality. Our adapted version includes four globally rated domains (Partnership, Compassion, Acceptance, and Evocation) utilizing a five-point rating scale ranging from "strongly disagree" to "strongly agree." Coach utterances are assigned behavior codes as well, and competency thresholds as suggested by Moyers et al., were utilized to provide a more complete picture of MI proficiency. "Beginning proficiency" and "competency" thresholds are provided for five summary scores: (1) global spirit rating (2) percentage of complex reflections, (3) percentage of open questions, (4) reflection-to-question ratio, and (5) percentage of utterances that adhere to accepted motivational interviewing technique. A more detailed description of the measure we used can be found in (Lee et al., In Press), where we analyzed 15 randomly sampled audio recordings (20-minutes in duration) of the Universal Principles or Debriefing Interviews. The final versions of these measures are located in the Program Integrity section of the intervention manual.

Program objective #4: Implement the Tertiary First Step intervention with 40 children and families.

During Year 01 we implemented an intervention prototype with nine teachers and families in three JCPS schools. We collected a variety of measures related to implementation fidelity, satisfaction, and outcomes. This data was used to improve the intervention procedures and to learn about the functioning of our measurement protocol. We implemented a pilot study in year 02 (Cohort 1, 2010-2011) and 03 (Cohort 2, 2011-2012) with a variety of schools in JCPS and Greater Clark County Schools. For each cohort, interventions were implemented in the fall (Wave 1) and in the spring (Wave 2).

The parents of 41 students consented to participate in Cohorts 1 (N = 20) and 2 (N = 21). Thirty-five of these children were from general education classrooms and six were from the three self-contained classrooms. Three students moved during the study and a few did not meet our full inclusion criteria; a few children that did not meet our full inclusion criteria were included because we had the resources, their teacher and parent wanted to participate, and we assessed value in applying the intervention with as many teachers, children, and families as possible. The analyses were completed for thirty-three families from Kentucky and Indiana who participated in the classroom and home component of the Tertiary First Step feasibility study. Children participating in Tertiary First Step were from K-3 classrooms, ranged in age from 5 to 9 years old (M = 6.8 years, SD = 1.3), and were predominantly male (79%). The majority of students receiving Tertiary First Step qualified for free or reduced lunch (75%) and

one third of participating children received special education services. Roughly one-third of participating children lived in two-parent households.

Program objective #5: Collect and analyze systematic feedback regarding the feasibility and usability of the intervention.

Data collection. Prior to beginning the intervention, parents and teachers participating in Tertiary First Step completed a baseline questionnaire containing demographic and outcome measures. At post-intervention, participants completed two questionnaires: one containing outcome measures and another containing process measures addressing program satisfaction, therapeutic alliance, and barriers to participation. Teachers and parents from the comparison group completed an outcome questionnaire at each time point but did not complete process measures given that they didn't receive the intervention. For the comparison group, baseline and post measures were collected roughly 60 days apart to approximate the window of time between baseline and post-intervention for the intervention group. Direct observation data (described below) were collected at baseline and post-intervention for all students participating in Tertiary First Step but were not collected for the comparison group due to time and budgetary constraints[1].

Teacher and Parent-Reported Outcomes.

Social Skills Improvement System Rating Scales (SSiS). The SSiS (*Gresham* & Elliott, 2008) is a multi-informant assessment tool that measures (a) social behaviors that facilitate positive interactions with peers, teachers, siblings, and parents, (b) problem behaviors that impede the acquisition of social skills, and (c) general academic functioning. The teacher-completed version of the measure includes 46 social skills items ($\alpha = 90$), 30 problem behavior items ($\alpha = .74$), and 7 academic competence items ($\alpha = 96$). The parent-completed version includes 46 social skills items ($\alpha = .93$), and 33 problem behavior items ($\alpha = .82$). Items are rated on a 4-point frequency scale (*Never, Seldom, Often, and Almost Always).* Academic competence items, scored on a 5-point scale from *lowest 10%* to *middle 40%* to *highest 10%,* assess the student's reading and math skills, motivation, cognitive functioning, and parental support relative to his or her classmates. We converted raw scores to standard scores using gender-specific normative data from the SSiS manual.

SSBD Combined Frequency Index (CFI). At screening, baseline, and post-intervention, we collected the SSBD combined frequency index. The CFI, part of the SSBD stage 2 rating scales (Walker & Severson, 1990), includes the Adaptive Behavior Index (ABI) and Maladaptive Behavior Index (MBI). The ABI and MBI are 12-item ($\alpha = .88$) and 11-item ($\alpha = .86$) scales, respectively, that assess a student's adaptive and maladaptive behavioral adjustments and with interactions with teachers and peers. Items are scored on a 5-point rating scale ranging from *never to frequently*. The SSBD is nationally normed, has excellent psychometric properties, and has been used in a number of research studies (see Walker & Severson, 1990). Raw scale scores were computed for each measure with higher scores on the ABI indicating higher levels of adaptive

[1] The comparison group was not initially proposed/funded for this grant, but added in the 3rd year.

functioning and higher scores on the MBI indicating higher levels of maladaptive functioning.

Student-Teacher Relationship Scale (STRS). The STRS assesses a teacher's perceived relationship with a particular student in her or his classroom (Pianta, 2001). At baseline and post intervention we collected data on an abbreviated version of the STRS that included the 11-item closeness ($\alpha = .89$) subscale and the 12-item conflict subscales ($\alpha = .82$). Teachers rate the applicability of each item on a 5-point Likert-type scale ranging from *definitely does not apply to definitely applies*. The closeness subscales assesses the student-teacher relationship in terms of affection, warmth, and open communication; the conflict subscale assesses the conflictual nature of the relationship, the perceived unpredictability of the student, and emotional exhaustion associated with the relationship. Higher scores on the closeness subscale indicate higher levels of affection, warmth, and communication; whereas, higher scores on the conflict subscale indicate higher levels of discord.

Observation Outcomes.

Academic Engaged Time (AET). Project staff collected direct observation data (three twenty-minute observations) on separate days at baseline and post-intervention using the SSBD stage 3 measure of student AET (H. M. Walker & Severson, 1992). For each time point, we computed the mean percent of AET across the three observations. AET is an estimate of the amount of time a student spends engaged in academic activities and is an important indicator of a student's academic success and adjustment to classroom expectations.

Peer Social Behavior (PSB). The PSB is an observation procedure that utilizes a partial-interval time sampling methodology to record the percentage of intervals the target student is engaged in positive and negative interactions with peers in unstructured or semi-structured settings (Walker & Severson, 1992). Project staff conducted three 20-minute observations at baseline and three at post-intervention on separate days using an adapted version of the instrument. Over the 20-minute session, observers recorded at one-minute intervals whether the student was engaged in positive social engagement, negative social engagement, parallel play, or was playing alone. For each time point we aggregated data from the three observation sessions and calculated the percent of positive and negative engagement by dividing the number of positive engagement intervals and the number of negative engagement intervals by the total number of intervals observed.

Process Measures.

Implementation Fidelity Checklist (IFC). Implementation fidelity was collected for the Tertiary homeBase component and the First Step CCU and CLASS components of the First Step intervention. For the Tertiary homeBase and First Step CCU components, coaches recorded which of the first four steps of the MING were completed with parents and teachers, respectively. These progressive steps are: 1) engage in values discovery, 2) assess current practices, 3) provide performance feedback, 4) provide extended consultation, education, and support, and 5) provide closure. A 20-item implementation fidelity checklist (IFC) was used to evaluate the implementation of the First Step CLASS component. This observer-completed measure assesses the extent to which the coach and teacher adhere to implementation guidelines for the CLASS school

component of the First Step program. For each question, the observer indicates (a) whether the component was implemented and (b) the quality of implementation. Adherence items are scored dichotomously (i.e., yes or no) and quality items are scored on a 5-point scale ranging from *very poor to excellent*. An observer collected the IFC on three occasions: once during the coach phase and twice during the teacher phase of CLASS. Adherence to 80% or more of observed program components represents adequate adherence and quality ratings of .75 - .90 represent adequate levels of implementation quality. We used the data from the IFC to compute adherence and implementation quality scores. Teacher and coach adherence scores indicate the proportion of core program components implemented correctly for the CLASS school component. Measures of teacher and coach implementation quality represent the mean quality rating across the observed program components. We also calculated overall adherence and quality measures (i.e., the mean of the two implementers) across both the coach and teacher.

Therapeutic alliance. At post intervention, we collected therapeutic alliance data from the coach, teacher, and parent to assess their partnership as it related to program implementation. Parents completed an 18-item scale ($\alpha = .86$) assessing the parent's perceived alliance with the coach. Teachers completed an 8-item scale ($\alpha = .89$) assessing the therapeutic alliance with the coach and coaches completed two 8-item scales, one assessing the relationship with the teacher ($\alpha = .95$) and the other assessing the relationship with the parent ($\alpha = .92$). Alliance items were rated on a five-point scale ranging from *never to always* and measured, for example, the respondent's perception of their partner's approachability, communication skills, follow through, shared goals, willingness to collaborate and overall effectiveness.

Social validity. Social validity items for all informants were scored on a five-point Likert scale from *strongly disagree to strongly agree.* Parent report included 12 items ($\alpha = .93$) that assess usability, support, and effectiveness of the program in the home setting. Teacher report included two scales: a 13-item scale assessing satisfaction with the CLASS component ($\alpha = .93$) and a 10-item scale examining the usability, support, and program effectiveness related to the CCU component of the First Step program ($\alpha = .93$). The coach completed a 12-item satisfaction scale with six items ($\alpha = .84$) pertaining to the compatibility and effectiveness of the classroom components of the program (i.e., CLASS and CCU) and six items ($\alpha = .90$) addressing the compatibility and effectiveness of the home component of the program (i.e., Tertiary homeBase). For each measure, we calculated a mean rating across items.

Program dosage and participant compliance. We used data from coach-completed case reports and from classroom monitoring forms (CMF) to calculate measures of program exposure and student compliance. The CMF is used by the coach and teacher to record the focus student's daily participation in the CLASS program and, upon completion of the intervention, provides a summary of the total number of program days completed, the number of program recycle days, and a summary of the points and reward earned daily by the child. In accordance with other studies of the First Step program (Sumi et al., 2012; Walker et al., 2009), we calculated classroom dosage as the proportion of program days delivered out of the possible 30 available days and student compliance as the proportion of program days successfully completed out of the total number of program days administered.

Statistical Analyses

We examined between-subject and within-subject effects on teacher and parent-reported outcome measures. To evaluate between-subject effects, we estimated a series of covariate-adjusted regression models using Mplus 6.0 statistical software. For the regression models, each outcome was regressed on two covariates: a dichotomous variable indicating intervention group (1 = EFS group, 0 = comparison group) and the baseline value of the outcome. Preliminary models included an interaction term (i.e., intervention group x baseline value of the outcome) as well as the two covariates to test that the slopes of the regression lines were equivalent for each group. If non-significant, the interaction term was removed from the model.

For the comparison group, only parent- and teacher-reported outcomes were collected. In turn, for the intervention group we also examined within-subject effects for our observation measures and primary teacher- and parent-reported outcomes. We examined within-subject effects in an analysis of variance (ANOVA) framework using the general linear model (GLM) procedure in SPSS 19.

For the between subject analysis, we report Hedges' *g* as a measure of effect size. The *What Works Clearinghouse* (WWC) recommends Hedges' *g* as the preferred measure of effect size for continuous outcomes. Hedges' *g*, the standardized mean difference, is calculated by taking the difference between the mean outcome of each group and dividing it by the pooled within-group standard deviation (WWC, 2011). Effect sizes of .2 are considered small, .5 are considered medium. and .8 are considered large effects. For the within-subject analysis we report partial point-biserial *r* as a measure of effect size (Rosnow & Rosenthal, 2008). Effect sizes of .14, .36, and .51 are considered small, medium, and large, respectively, for the partial *r* (Cohen, 1988). We applied the Benjamini-Hochberg correction to statistically significant outcomes (B-H; Benjamini and Hochberg, 1995) to correct for multiple comparisons. The B-H correction is calculated by ordering statistically significant outcomes in ascending order within domains, based on p-values. Then, a cutoff is calculated for each. For the pro-social behavior and problem behavior domains, which both contain three outcome measures, rank ordered intervention effects are considered significant at a .05 alpha level if p-values are less than .017, .033, and .05, respectively.

We also report the WWC (2001) improvement index as a measure of practical significance. To calculate the improvement index we (a) converted each effect size estimate to a Cohen's U3 index using a standard normal distribution z-score table and (b) subtracted the U3 index from 50%, the percentile rank of an average student in the comparison group. The WWC improvement index represents the expected change in percentile rank for an average student in the comparison sample if that student had received the EFS intervention.

Results

Baseline Equivalence. Students who received the tertiary version of the First Step intervention did not differ significantly from the comparison group on baseline behavioral and academic outcome measures and most student, parent, and teacher demographic characteristics. Table 1 contains a summary of student demographic and behavioral characteristics for each group. The two groups differed only on the number of African American students in the comparison sample as compared to the EFS condition (68% vs. 39%, respectively).

Table 1
Baseline equivalence of student demographic and behavioral characteristics.

	Total (n = 55)	Comparison (n = 22)	Tertiary FS (n = 33)	Test statistic	*p*-value
Demographic characteristic					
Age *M(SD)*	7.0 (1.2)	7.3 (1.1)	6.8 (1.3)	1.53	.133
Percent Female	20.0	18.2	21.2	0.08	.783
Percent African American	50.9	68.2	39.4	4.38	.036
Percent Caucasian	36.4	22.7	45.5	2.95	.086
Percent Free/Reduced lunch	82.2	90.5	75.0	1.84	.176
Percent IEP	25.5	13.6	33.3	2.70	.100
Screening measures					
SSBD stage 2 rank				2.78	.249
Percent ranked 1st	69.1	59.1	75.8		
Percent ranked 2nd	23.6	27.3	21.2		
Percent ranked 3rd	7.3	13.6	3.0		
Percent in clinical range on CBCL externalizing scale	88.9	85.7	90.9	0.35	.554
Critical Events Index *M(SD)*	8.1 (3.2)	8.5 (3.1)	7.8 (3.2)	0.90	.370

Adaptive Behavior Index *M(SD)*	29.6 (6.3)	30.5 (7.0)	29.0 (5.8)	0.85	.401
Maladaptive Behavior Index *M(SD)*	38.2 (6.9)	39.7 (6.3)	37.1 (7.1)	1.39	.170

Although there were no statistically significant differences between the groups with respect to parent demographic characteristics, there was a disproportionate number of African American parents in the comparison group (61%) as compared to the intervention group (42%). Other parent demographic characteristics were comparable across the groups. Parents in the intervention condition had a mean age of 38 years (*SD* = 10.4), were primarily female (88%), and were predominantly the biological or adoptive mother of the participating student (81%). Nearly 30% reported having an Associate's degree or higher and the majority were currently employed (61%). Approximately 36% of participating students lived in two-parent households. Parents in the comparison group had a mean age of 35 years (SD = 9.2), were predominantly female (96%), and were the biological or adoptive mother of the student (82%). Thirty-two percent had an Associate's degree or higher and 68% were employed. Roughly 32% of students in the comparison group lived in a two-parent household.

There were no differences on teacher characteristics between the two groups. All teachers participating in the Tertiary First Step intervention reported being the lead teacher of the classroom. The majority were female (93.3%) and half reported having a Master's degree or higher. Teachers reported having worked in the field for an average of 14.1 years (*SD* = 8.8) and had taught students who receive special education services for an average of 11 years (*SD* = 9.1).

Attrition and Missing Data. For the Tertiary First Step group, data were available for 94% of teachers and 94% of parents at baseline. At post-intervention, 32 teachers (97%) and 28 parents (88%) returned a questionnaire. For the comparison group, data were available for all 22 teachers and parents at baseline, all teachers at post intervention, and 19 parents (86%) at post intervention. Students with complete assessment data from the comparison group did not differ from those with a missing assessment. Tertiary First Step students with complete data across time points and informants did not differ significantly from those with missing assessments on student demographics, student behavioral characteristics or parent characteristics. The two groups did differ, however, on the number of years the teacher had been working in the field. The teachers of students with complete data had been working in the field longer than the teachers of students with missing data (15.6 years [*SD* = 9.0] as compared to 7.7 years [*SD* = 4.1], respectively).

Intervention Effects.

Between-subject results. Results from the covariate-adjusted regression models as well as baseline and post-test intervention means and standard deviations for the Tertiary First Step and comparison conditions are presented in Table 2. For the three teacher- and parent-reported outcomes in the pro-social behavior domain, students who received the tertiary version of First Step had statistically significant improvement in adaptive behavior and social skills at post-test as compared to students in the comparison sample. Hedges' *g* effect sizes for the three pro-social outcomes ranged .36 to 1.11. Students who participated in the intervention also had statistically significant reductions in maladaptive and problem behaviors across both school and home settings. The Hedges' *g* effect sizes for the teacher- and parent-reported problem behaviors ranged from -.77 to -1.17. There

were no statistically significant changes in student academic competence after completion of the intervention (Hedges' g = .19). Within each domain, we applied a B-H correction. According to these criteria, all six outcomes remain statistically significant at the .05 level.

Table 2. *Baseline and post-intervention means and standard deviation for outcome measures and covariate-adjusted regression results.*

Domain / measure	Comparison (n = 22)			Tertiary FS (n = 33)			Condition effect		Effect size
	Baseline	Post-Intervention		Baseline	Post-Intervention				
	M(SD)	*M(SD)*	M_{Adj}	*M(SD)*	*M(SD)*	M_{Adj}	*t*	*p-value*	Hedge's *g*
Pro-social behavior									
SSBD-ABI	29.5 (6.2)	29.5 (7.1)	30.6	32.3 (5.8)	39.2 (9.7)	38.4	3.60	< .001	.89
SSiS-SS-Teacher	76.1 (8.8)	75.4 (9.2)	76.0	77.7 (9.7)	91.7 (14.3)	89.8	4.55	< .001	1.11
SSiS-SS-Parent	73.9 (21.7)	78.9 (21.0)	80.1	77.2 (13.8)	88.1 (17.4)	87.0	2.18	.029	.36
Problem behavior									
SSBD-MBI	37.6 (6.1)	37.7 (5.8)	37.4	36.6 (5.7)	28.1 (9.1)	28.2	-4.79	< .001	-1.17
SSiS-PB-Teacher	133.0 (11.0)	134.0 (12.0)	133.7	132.4 (11.8)	118.5 (16.2)	119.4	-4.15	< .001	-.98
SSiS-PB-Parent	129.1 (21.6)	126.8 (19.9)	128.0	129.9 (10.1)	116.7 (12.8)	115.6	-3.39	.001	-.77
Academic Competence									
SSiS-AC-Teacher	89.3 (17.9)	88.0 (16.9)	87.9	89.0 (15.3)	91.0 (13.9)	90.9	1.54	.125	.19

We also examined whether participation in the tertiary version of the First Step intervention improved the student-teacher relationship. Students participating in the Tertiary First Step condition had mean reductions in teacher-reported conflict as compared to students in the comparison condition. Specifically, scores on the STRS conflict scale decreased from 36.3 (SD = 8.4) at baseline to 31.7 (SD = 12.2) at post-intervention for the students in the Tertiary First Step condition. In comparison, teacher-reported levels of conflict for students in the comparison sample remained stable from baseline (*M[SD]* = 40.8[7.7]) to the post assessment (*M[SD]* = 40.1[6.5]). These differences were not statistically significant, $t[54] = -1.96$, $p = .050$; Hedges' $g = -.43$). There were modest improvements on the STRS closeness scale for students in the Tertiary First Step condition. Mean levels improved from 39.9 (*SD* = 8.4) at baseline to 42.7 (*SD* = 9.2) post-intervention; whereas mean levels for students in the comparison sample remained stable from baseline (*M[SD]* = 40.1[6.2]) to post (*M[SD]* = 40.3[7.4]). The mean improvement in student-teacher closeness was non-significant, $t(54) = 1.10$, $p = .270$; Hedges' $g = .23$.

Within-subject results. We also examined within-subject effects for our observation measures and primary teacher- and parent-reported outcomes. For the pro-social domain, within-subject partial r effect sizes were .57, .66, and .74 for teacher-reported ABI, SSiS social skills, and parent-reported SSiS social skills, respectively. For the problem behavior domain, effect sizes were .70 and .65 for teacher-reported MBI and SSiS problem behavior, and .79 for parent-reported SSiS problem behavior. Within-subject effect sizes for the academic domain were .25 for academic competence and .82 for AET. After receiving the intervention, student AET improved on average from 59% (*SD* = 17%) to 75% (*SD* = 16%). Effects for the PSB observation data were in the small range. The effect size for positive interactions was .42 and .53 for negative interactions. Positive interactions with peers increased from baseline (*M[SD]* = 27.3[16.5]) to post intervention (*M[SD]* = 35.2[17.1]) and negative interactions with peers decreased from 4.3 (*SD* = 4.1) to 1.7 (*SD* = 1.9).

Practical significance. The mean improvement index score for outcomes in the pro-social behavior domain was +28 percentile points (i.e., if an average control student received the EFS intervention, we could anticipate a mean improvement of 28% on pro-social outcomes). The improvement index for teacher-reported adaptive behavior was +31 percentile points and +37 percentile points for social skills. The improvement index for parent-reported social skills (+14.8 percentile points) was more modest. For the problem behavior domain, mean improvement across the three outcomes was +33 percentile points. Teacher-reported problem behavior outcomes ranged from +34 to +38 percentile points for maladaptive and problem behavior, respectively. Parent-reported improvement in problem behavior scale was +28 percentile points. There were positive improvements across all primary outcomes and settings. Mean improvement in the home setting was +34 percentile points and mean improvement in the home setting was +21 percentile points.

Process Results. During coach and teacher phases, First Step program adherence was excellent. Coaches implemented 96% (range = 64% to 100%) and teachers implemented 90% (range = 63% to 100%) of the CLASS component. Implementation quality was excellent during the coach phase (.96; range = .90 to 1.00) and good during the teacher phase (.84; range = .61 to 1.00). Students received, on average, 78% of the requisite program days and student compliance on average was good (.84; range = .47 to 1.00). Twenty-five teachers (76%) and twenty-five parents (76%) completed all 4 of the intervention activities. Both the teacher and a parent completed the MING process for 18 of 33 participating students (55%). Teachers and coaches reported low to moderate levels of parent compliance. Mean teacher-reported parent compliance was 2.9 (*SD* = 0.8) and mean coach-reported parent compliance was 3.4 (*SD* = 0.8).

Therapeutic alliance with the coach was rated highly by both parents (*M[SD]* = 4.7[0.4] on a 5-point scale) and teachers (*M[SD]* = 4.9[0.2]). Conversely, coaches reported moderate levels of alliance with the parents (*M[SD]* = 3.7[0.9]) and higher alliance levels with teachers (*M* [SD]= 4.2[0.9]). Parents reported high levels of program social validity (*M[SD]* = 4.6[0.5]; range = 3.2 to 5.0). Teachers reported moderate to high levels of social validity for the CLASS component (*M[SD]* = 4.1[0.7]; range = 2.5 to 5.0) and for the CCU component (*M[SD]* = 4.2[0.6]; range = 2.8 to 5.0).

Disseminated to Communities of Interest

We have kept a variety of stakeholders abreast of the study progress. For our collaborating districts, we provided district reports in September 2011 and 2012. For teachers and parents, we shared the study results via brochures. We have disseminated our findings nationally by presenting a poster at the Promoting School Mental Health conference (October, 2011, Charleston, SC) the Society for Social Work Research conference (January 2012, Washington, DC), Society of Research on Educational Effectiveness (March 2011, Washington DC, and the IES program officer meeting (March 2013, Washington, DC), and the Positive Behavior Interventions and Support conference (San Diego, CA). The following table summarizes our team's publications related to the products of this development grant. Each of these has been loaded in Section II of this report.

Table 3. Articles and Book Chapters

Publication	Tertiary First Step	MING	First Step CCU	MITS
Frey, A.J., Cloud, R.N., Lee, J., Small, J.W. Seeley, J.R., Feil, E., Walker, H.W., & Golly, A. (2011). The promise of motivational interviewing in school mental health. *School Mental Health, 3*, 1–12. doi 10.1007/s12310-010-9048-z	X	X	X	X
Frey, A. J., Lee, J., Small, J.W., Seeley, J.R., Walker, H. M., & Feil, E. G. (2013). Transporting motivational interviewing to school settings to improve engagement and fidelity of Tier 2 interventions. *Journal of Applied School Psychology, 29,* 183-202.	X	X	X	
Frey, A.J., Lee, J., Small, J.W., Seeley, J.R., Walker, H.M. & Feil, E.G. (2013). The Motivational Interviewing Navigation Guide: a process for enhancing teachers' motivation to adopt and implement school-based interventions, *Advances in School Mental Health Promotion*, DOI: 10.1080/1754730X.2013.804334	X	X		
Lee, J., Frey, A.J., Seeley, J., Small, J., Walker, H.M., Golly, A., Feil, E.G., Ratcliffe, P. & Rutledge, A. (in press). *Adapting Motivational interviewing to an early intervention addressing challenging behavior: Applications with teachers.* In E. McNamera's Motivational Interviewing with Children and Young People: Issues and Further Applications. Positive Behaviour Management, Ainsdale, Southport, Merseyside PR8, United Kingdom.		X	X	
Frey, A.J., Lee, J., Small, J., Walker, H.M., Golly, A., Seeley, J., & Feil, E. (2013). The Development and Feasibility of Tertiary homeBase: An enhanced Home Component for the First Step to Success Early Intervention Program. *Submitted for publication*.	X	X		
Frey, A.J., Small, J., Lee, J., Walker, Seeley, J., H.M., & Feil, E, Golly, A. (2013). Expanding the range of the First Step to Success intervention: Tertiary-level support for teachers and families. *Submitted for publication.*	X			
Small, J.W., Lee, J., Frey, A.J, Seeley, J.R, Hill, H.M. (2013). Measuring Motivational Interviewing Quality for School-Based Applications. Abstract submitted for consideration in a special issue of *Advances in School Mental Health Promotion*.		X		X
Frey, A.J, Lee, J., & Small, J.W., Seeley, J.R., Walker, H.M., & Ratcliffe, P. (2013). Motivational Interviewing Training and Support for School-Based Consultants. Abstract submitted for consideration in a special issue of *Advances in School Mental Health Promotion*.		X		X

Section II. Products

See Section 1, Dissemination to communities of interest. All items referenced in the prior section have been loaded as attachments in this section.

Section III. Participants & other collaborating organizations

Research Team
Andy Frey
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Oregon Research Institute
University of Oregon
Jefferson County Public Schools (Louisville, KY)
Greater Clark County Schools (New Albany, IN)
Clinical Training Institute (Indianapolis, IN)

Section IV. Impact

The majority of the project's impact has been described in the Accomplishments and Participants & Other Collaborating Agencies sections of this report. Below, we provide description of additional areas of impact.

The findings have significant implications for future research. Notably, we believe much can be learned from our application of a motivational interviewing approach in school settings, and that the application is potentially far reaching. We have expanded on this in articles, book chapters, and the manuscripts under review and in progress. Additionally, we have developed excellent relationships with our advisory committee, whose insight and generosity to share their work has been remarkable. Most notably, Terri Moyers, Wendy Reinke, Keith Herman, & Greg Fosco, have provided wonderful feedback across all years of the project. There are many similarities between Wendy & Keith's (both IES funded scholars) research agenda and that of the team working on this project. We believe this project has helped develop a relationship between their research team and ours, and many possibilities benefiting education will result as a result of this partnership. Terri Moyers is one of the most prominent scholars in the area of motivational interviewing. She is very interested in the application of motivational interviewing in the context of school, and thinks very highly of our work. She could be an instrumental member of our team as we move forward, particularly with regard to training school personnel to adapt and use motivational interviewing techniques. Greg Fosco provided invaluable feedback on the manualization process. All consultants were provided an executive summary of the project in July 2013.

Section V. Changes/Problems

We have not experienced any problems, and no changes have been made since our last annual report.

Section VI. Special Reporting Requirements

None

Section VII. Budgetary Information

As can be seen in Table 3, $400 was not spend for this project, and will be given back to the Department of Education.

Table 4. Carryover Estimation Worksheet (OUTYEARS)

SF424 Budget Categories	**Beginning Balance** (Carryover amount from previous budget periods)	**Award Amount** (Current Budget Period)	**Total Available Budget** (for the current project year/performance period)- Columns B+C	**Expenditures** (Amt spent during the current RPPR reporting period)	**Amount Encumbered or Committed** (unpaid expenses; pending invoices/bills)	**Anticipated Expenditures** (for the remainder of the current budget period)	**Total Expenditures** (Columns E+F+G)	**Difference** (Total Available Budget *minus* Total Expenditures)	**Projected Carryover Amount (No Cost Extension)**
A. Key Personnel (salaries and fringe)	29516	184643	214159	124334		75050	199384	14775	
B. Other Personnel (salaries and fringe)									
C. Equipment Costs									
D. Total Travel Costs	3738	10336	14074	2981		750	3731	10343	
E. Participant Support/Trainee Costs (N/A)									
F. Other Direct Costs									
1. *Materials and Supplies*	*25622*	*35569*	61191	19925		10000	29925	31266	
2. Publication Costs									
3. Consultant Services		*12000*	12000	6500		3500	10000	2000	
4. Computer Services									
5. Subawards/Consortium/Contractual Costs	*5377*	*193568*	198945	115623	50841	32481	198945	0	
6. Equipment or Facility Rental/User Fees									
TOTAL - DIRECT	**64253**	**436116**	**500369**	**269363**	**50841**	**121781**	**441985**	**58384**	**58384**
INDIRECT	**15308**	**63062**	**78370**	**39972**	**0**	**23218**	**63190**	**15180**	**15180**
GRAND TOTAL	**79561**	**499178**	**578739**	**309335**	**50841**	**144999**	**505175**	**73564**	**73564**

Achenbach, T.M. (1991). Manual for the Child Behavior Checklist/4-18 and the 1991 profile. Burlington, VT: University of Vermont Department of Psychiatry.

Frey, A.J., Lee, J., Small, J., Walker, H.M.G., A.Seeley, J., & Feil, E. (2013). The Development and Feasibility of Tertiary homeBase: An enhanced Home Component for the First Step to Success Early Intervention Program.Unpublished manuscript.

Frey, A.J., Lee, J., Small, J.W., Seeley, J.R., Walker, H.M., & Feil, E.G. (2013a). Motivational Interviewing Navigation Guide: A process for enhancing teacher's motivation to adopt and implement school-based interventions. *Advances in School Mental Health Promotion*

Frey, A.J., Lee, J., Small, J.W., Seeley, J.R., Walker, H.M., & Feil, E.G. (2013b). Transporting motivational interviewing to school settings to improve engagement and fidelity of Tier 2 interventions. *Journal of Applied School Psychology*, 29, 183-202.

Frey, A.J., Small, J., Lee, J., Walker, H.M., Seeley, J., Feil, E., et al. (2013). Expanding the range of the First Step to Success intervention: Tertiary-level support for teachers and families. .Unpublished manuscript.

Frey, A.J., Walker, H.M., Seeley, J.R., Lee, J., Small, J.W., Golly, A., et al. (2013). Tertiary First Step to Success Resource Manual.

Gresham, F.M., & Elliott, S.N. (2008). *Social Skills Improvement System* Rating Scales. Minneapolis, MN: NCS Pearson.

Lee, J., & Frey, A.J., & Small, J.W. (2013). *The Video Assessment of Simulated Encounters – School-Based Applications*. Cincinnati, OH: University of Cincinnati.

Lee, J., Frey, A.J., Walker, H.M., Golly, A., Seeley, J., Small, J., et al. (In Press). Adapting Motivational interviewing to an early intervention addressing challenging behavior: Applications with teachers. In E. MacNamera (Ed.), Motivational Interviewing with Children and Young People: Issues and Further Applications. United Kingdom: Positive Behaviour Management.

Lee, J., Small, J.W., & Frey, A.J. (2013a). *The Motivational Interviewing Knowledge and Attitudes Test for School Based Applications*. Cincinnati, OH: University of Cincinnati.

Lee, J., Small, J.W., & Frey, A.J. (2013b). *Written Assessment of Simulated Encounters- School-Based Application*. Cincinnati, OH: University of Cincinnati.

Leffingwell, T.R. (2006). Motivational Interviewing Knowledge and Attitudes Test (MIKAT) for evaluation of training outcomes. MINUET(13), 10-11.

Miller, W.R., Hedrick, K.E., & Orlofsky, D.R. (1991). The Helpful Responses Questionnaire: A procedure for measureing therapeutic empathy. Journal of Clinical Psychology, 47(3), 444-448.

Miller, W.R., & Rollnick, S.R. (2012). Motivational Interviewing: Helping people change (Applications of Motivational Interviewing) (3rd ed.). New York: The Guilford Press.

Moyers, T., Martin, T., Manuel, J., Miller, W., & Ernst, D. (2007). The Motivational Interviewing Treatment Integrity (MITI) Code Manual: Version 3.0.: University of New Mexico,Center on Alcoholism, Substance Abuse, & Addictions.

Pianta, R. (2001). Student-teacher relationship scale. Professional manual. Lutz, FL: Psychological Assessment Resources.

Reinke, W., Lewis-Palmer, T., & Merrell, K. (2008). The classroom check-up: A classwide teacher consultation model for increasing praise and decreasing disruptive behavior. School Psychology Review, 37(3), 315-332.

Rosengren, D.B., Baer, J.S., Hartzler, B., Dunn, C.W., & Wells, E.A. (2005). The video assessment of simulated encounters (VASE): Development and validation of a group-administered method for evaluating clinician skills in motivational interviewing. Drug & Alcohol Dependence, 79(3), 321-330.

Sprague, J., & Golly, A. (2013). *BEST Behavior. Building Positive Behavior Support in Schools* (2nd ed.). Longmont, CO: Sopris Learning.

Walker, H., & Severson, H.H. (1990). Systematic screening for behavior disorders (SSBD): User's guide and technical manual. Longmont, CO: Sopris West.

Walker, H.M., & Severson, H. (1992). Systematic Screening for Behavior Disorders: Technical Manual.