

Running head: THE RELATIONSHIP BETWEEN DATA COLLECTION AND SCHOOL  
READINESS

Examining the Relationship between Frequency of Teacher Data Collection and School-  
Readiness Outcomes

Ashley N. Lyons

Kent State University

## **Examining the Relationship between Frequency of Teacher Data Collection and School-Readiness Outcomes**

(Topic 11: Early Learning Programs and Policies; Goal 1: Exploration)

### **ABSTRACT**

There has been limited research exploring the correlation between the act of data collection alone and improved child outcomes for young children. The aim of the proposed Project is to address Goal 1 of the Early Learning Programs and Policies competition and is designed to establish whether the teacher behavior of ongoing data collection improves preschool students' school readiness outcomes, particularly for children at-risk for later academic challenges. The focus of the Project is to determine to what extent ongoing data collection-irrelevant of the specific measures or methods used to collect data, or the particular resultant instructional decisions made as a result of data collection- affects students learning outcomes. This proposed Project will be conducted in 2 phases, and utilizes a mixed methods approach. A factorial 2x2x3 ANOVA and paired sample t-tests will be run on childrens' pre and post scores for two common school readiness assessments (the AEPS and the SSIS), and a content analysis will be completed on teacher responses to a survey regarding data collection practices and student learning that will be administered at the start and finish of the study. A nationally representative sample of 150 preschool classroom teachers from the Midwest will be selected for the study, and randomly assigned to one of three conditions: control, frequent data collection, or tiered data collection. Results of the proposed Project will lend evidence as to whether the simple behavior of ongoing data collection, *in and of itself*, is sufficient in improving students' academic development and readiness. Dependent upon the evidence the study yields, future studies (and proposals submitted to IES) can center upon the development of professional development activities and/or programs that address the need for regular collection of student performance data.

**KEYWORDS:** data collection, performance monitoring, preschool, teacher, and quality

*\*PLEASE NOTE: The grant application would follow the abstract; however, the current application is not yet available for download (further, previous application packages for this specific grant opportunity have been removed) and thus it is not included in this final draft proposal.*

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## **Examining the Relationship between Frequency of Teacher Data Collection and School-Readiness Outcomes**

(Topic 11: Early Learning Programs and Policies; Goal 1: Exploration)

### RESEARCH NARRATIVE

#### **Significance**

The proposed project is designed to meet Education Research (CFDA 84.305) Goal One: Exploration (84.325D). The Project is designed to investigate teacher data collection practices within the early childhood and early childhood intervention fields. The Project is intended to provide foundational information for future research initiatives to improve teacher data collection practices and student outcomes.

#### **Key terms Defined**

Prior to outlining the empirical and theoretical basis of the proposed Project (in addition to providing an illustrative logic model for the Project), a summary of the key terms that will be used throughout the proposal are defined in what follows:

- ***Control group-*** Classrooms randomly assigned to the control condition. In this condition (group), teachers continue to collect data as they normally would with no changes to their typical data collection routine. During Project Year 1, teachers are asked to indicate the extent to which they typically collect data in their classes, as well as other data collection behavior (such as the types of students they collect data for). Teachers that have been surveyed prior to the start of the academic year (Project Year 2) that have indicated a more frequent use of data collection will either be swapped with a classroom in Experimental Group 1 that previously indicated limited data collection efforts or removed from the study so as not to encourage a reduction in data collection.
- ***Control data collection method-*** The existing method used by individual classroom teachers in the control group to collect data on student performance. This information is collected and catalogued during Project Year 1.
- ***Experimental Group-*** Classrooms randomly assigned to one of two experimental (treatment) conditions. In this condition (group), teachers collect data in a manner through which they were trained by the researchers during Project Year 1. In Experimental Group 1, teachers collect data twice a week for all students, rotating the goals/benchmarks observed so that all students are observed in all areas of learning at least once each month. In Experimental Group 2, teachers collect data using a tiered system wherein students with identified universal needs have data collected less often than students with targeted or individual needs.
- PI- Principal Investigator (see Personnel section)
- PC- Project Coordinator (see Personnel section)

- PRA- Primary Research Assistant (see Personnel section)
- RA- Research Associate (see Personnel section)
- TDC expert- Tiered Data Collection Expert (consultation of two experts with expertise in the area of data collection and tiered performance monitoring)
- DA- Data Analyst: (consultation provided by an expert to assist in analyzing quantitative data)
- **AEPS-** Assessment, Evaluation, and Programming System
- **SSIS-** Social Skills Improvement System
- **SSIS Problem Behaviors-** Social Skills Rating System, Problem Behaviors scale
- **SSRS Social Skills-** Social Skills Rating System, Social Skills scale
- **Teacher-** refers to the adults who work with the children, regardless of particular setting or context. A variety of terms such as early childhood educator, interventionist, direct service provider, childcare provider, and/or practitioner are commonly used to describe the adults who work with young children. Regardless of the setting in which the adult works or the type of children with whom the adult works, one common role of these individuals is that of teacher
- **Student-** preschoolers (ages 3-5) who are typically developing, those with disabilities (i.e., have an identified delay or disorder and receive Part B section 619 services), and those considered at-risk of educational failure.
- **Teacher data collection practices-** a breadth of practices that teachers can use to collect data, including the use of curriculum-based assessments, curriculum-based measures, charts, data sheets, databases, etc.
- **Tiered data collection-** a system of data collection wherein students with identified universal needs have data collected less often than students with targeted or individual needs. Student goals and/or objectives are likely to change based on the data. In the use of this system for the proposed Project, however, no structure is given to teachers regarding how to adapt or modify instruction. The only aspect that is measured for fidelity is the extent to which teachers continue to target and individualize data collection.

### Theoretical and Empirical Rationale

The proposed project is designed to meet Education Research (CFDA 84.305) Goal One: Exploration (84.325D). The project is designed to investigate teacher data collection practices within the early childhood and early childhood intervention fields. The project is intended to provide foundational information for future research initiatives to improve teacher data collection practices and student outcomes.

The field of early education and early intervention is under a transformational change. While still embracing the notion that all teachers have a commitment and desire to foster children's development, national, state and local entities have developed standards and outcomes for early education and early intervention (Early Childhood Education Assessment (ECEA), 2007; US Department of Education, 2002; The Early Childhood Outcomes Center, 2005). The implementation of these standards and the underpinnings of accountability for all teachers is a driving force permeating all levels of education (Obiakor, 2009). In 2000, the Administration for Children and Families required children in Head Start to work towards specific outcomes within each major content domain prior to entering Kindergarten. The outcomes included approaches to learning, creative arts, language development, literacy, mathematics, physical health and development, science, social and emotional development (Head Start Child Outcomes Framework, 2000). In 2002, Congress authorized No Child Left Behind (NCLB), which prompted the passage of the *Good Start, Grow Smart* initiative (Good Start, Grow Smart: Executive Summary, 2002). This initiative urged states to develop early learning standards within the areas of literacy, language, and mathematics. To date, 49 states and the District of Columbia have developed these standards, with additional states making strides toward developing their own early learning standards (CCSSO State Collaborative on Early Childhood Education Assessment, 2008).

Regardless of the standards set forth by the state, the quality of any given teacher predicts children's development during the elementary school years for a variety of cognitive outcomes (Peisner-Feinberg, Burchinal, Clifford, Culkin, Howes, Kagan, et al., 2001). Pianta & Stuhlman (2004) found that the quality of teachers is positively correlated to growth in children's receptive vocabulary and reading abilities from preschool to second grade. Likewise, Howes, Burchinal, Pianta, Bryant, Early, Clifford, et.al (2006) found that children have larger gains in academic outcomes when they have had positive relationships with teachers in the early years. In addition, Gallagher and Mayer (2008) found that preschoolers who have positive relationships with teachers have better language and literacy skills and have higher math scores while in preschool. Yet another aspect of teacher quality is the use of recommended practices.

The Office of Special Education Programs requires the reporting of data for all children receiving special education services under Part C or Part B/619 of IDEA on specific child outcomes. Data on the following outcomes must be reported: (a) positive social relationships, (b) acquisition and use of knowledge and skills, and (c) whether children take appropriate action to meet their needs (Early Childhood Outcomes Center, 2005). The Division for Early Childhood of the Council for Exceptional Children (DEC) recommends that teachers and interventionists engage in data collecting to inform their instruction (Sandall, Hemmeter, Smith & McLean, 2005). Monitoring students' performance is an essential component of instruction and leads to improved student outcomes, increased fidelity of intervention, higher quality goals and objectives, improved communication between teachers and interventionists, administrators, and family members (Hojnoski, Gischlar, & Missall, 2009b; Hojnoski & Missall, 2007; Coddling, Skowron, & Pace, 2005; Cooke, Heward, Test, Spooner, & Courson, 1991; Raver, 2003;

Ysseldyke & Tardrew, 2007). In order to effectively monitor young children's performance, early childhood teachers and interventionists need to collect data in order to obtain a clear picture of the child's functional performance (Hojnoski, Gischlar, & Missall, 2009a; Raver, 2003).

The use of information to monitor instructional strategies for teachers is a recommended practice identified by the Division for Early Childhood (Neisworth & Bagnato, 2000; Luze & Peterson, 2004; Pfeiffer-Fiala, Moore, Lyons, & Pretti-Frontczak, 2010). The need to collect data in a manner which is effective and efficient, however, has been found to be neither routine nor widespread, and continues to be inconsistent between a teachers and interventionists beliefs and practices (Fuchs, Fuchs, & Warren, 1982, Sandall, Schwartz, & LaCroix, 2004; Wesson, King, & Deno, 1984). While teachers acknowledge that data collection is important and useful, they often express that it is difficult to do (Pfeiffer-Fiala, et al., 2010; Codding, et al., 2005; Sandall, Schwartz, & LaCroix, 2004). Evidence suggests that early childhood teachers and early interventionists tend to use observational memories to make decisions about children's performance. Conversely, a number of studies have shown a functional relationship between teachers' use of child performance data and increased student outcomes (Fredericks et al., 1979; Fuchs & Fuchs, 1986).

While some studies have found that in-service training may help to change teacher data collection behaviors, others continue to note that in-service training efforts made no difference in data collection practices by teachers (Elliott, Witt, Kratochwill, & Stoiber, 2002; Farmer, Wolery, Gast, & Page, 1988). Instead, the impact of the acceptability, effectiveness, empowerment, and resistance on teacher's data collection practices continues to proliferate the evidence base (Elliott, et al., 2002; Pfeiffer-Fiala, et al., 2010). Further impacting teacher's data collection practices are the type of assessment and performance-monitoring tool that they use. The process of what data to collect, how often, what way, and with which tool impacts teacher's data collection practices, instructional decisions, and student outcomes. Further, while research has shown that ongoing performance monitoring often improves student learning, the specific decision-making process used to inform instruction is often implicated as the reason for improvement. Little has been done in regard to the correlation, if any, between the simple teacher act of data collection and student academic outcomes, regardless of the data collection tools used or decision-making model employed.

It can be challenging for educators to collect and use data from standardized, norm-referenced tests. Standardized, norm-referenced tests require data to be collected on all children, at the same point in time, and on the same content or concept. Results from the test must be considered in comparison to similar children in similar circumstances. Unfortunately, often norming samples do not adequately represent minorities or children with special needs (McAfee & Leong, 2007). Generally, norm-referenced assessments are not recommended for intervention development, performance monitoring, or to inform teacher practices (Bowers, 2008; McConnell, 2000). While norm-referenced assessments allow teachers to gauge how a student is performing compared to his or her peers at a moment in time, the collection of this data is unlikely to be useful for planning instruction.

Today, early childhood professionals are departing from traditional norm-referenced testing methods and are increasingly depending on assessments deemed more developmentally appropriate and useful for instructional planning. The National Association for the Education of Young Children (NAEYC) and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) recommend that early childhood educators and interventionists utilize criterion-referenced assessment instruments as an alternative to

standardized, norm-referenced tests (Greenwood et al., 2002; National Association for the Education of Young Children [NAEYC], 2004). Criterion-based assessments can be easily documented, interpreted to assist in intervention decision-making, and deployed for classroom instructional planning. Use of curriculum-based assessments allows teachers to collect data based on individual needs, instruction, and outcomes and eliminates the over-taxing effect on teachers' data collection practices of a one-size-fits-all data collection system. Criterion-based assessments compare a child's performance to a predetermined set of skills or behaviors (the criterion) to determine strengths and weaknesses. By focusing on a child's patterns of strengths and weaknesses, educators can individualize classroom instruction and intervention. While there are many criterion-based assessments specifically developed for use in early childhood settings, some criterion-based assessments lack authenticity and do not align with early childhood teaching and learning practices (Bergholm-Petka & Pipkin, 2008; Greenwood et al., 2008; NAEYC, 2004). Criterion-based assessments such as the Assessment, Evaluation, and Planning System (AEPS, 2002) and the Social Skills Improvement System (SSIS, 2008) are authentic and can be implemented within the natural environment of children's everyday routines. Thus, these measures will be used to gauge children's school readiness outcomes for the present proposed study. Criterion-referenced measurements are another tool that teachers can use to improve instructional decision-making. In contrast to criterion-referenced assessments, however, these tools are designed to be administered routinely to monitor progress. Studies have shown that the regular use of validated criterion-based measurements has led to improved student outcomes (Stecker, Fuchs, & Fuchs, 2005; VanDerHeyden, Witt, Naquin, & Noell, 2001).

### **Purpose of the Project**

The ultimate goal of this project is to serve as a foundation to research related to the effectiveness of ongoing data collection, as well as to identify any differences in efficacy of data collection as a stand-alone practice as it relates to the level at which data collection is targeted and individualized. Unfortunately, given that there is little comprehensive research- and more specifically, that the research that does exist does not consistently use a similar model- it is unrealistic to submit a proposal that seeks to provide evidence of the use of a specific tiered model as the basis for tiered data collection. More clearly, while many models exist, one would need to develop a sound logic model regarding why or how a specific tiered model was constructed, and the reality is the field does not have currently have enough research to complete that task.

Therefore, in order to begin accumulating evidence that will ultimately allow researchers in the field to develop and test specific tiered models, this proposal will endeavor to investigate relationship between teachers' frequency of data collection and students' school readiness outcomes. To accomplish this, the teachers' data collection practices will be examined across 150 classrooms and compared to a control group. Further, one treatment group of classrooms included in the study (50 total) will implement a rudimentary tiered system of data collection. That is, while teacher training and fidelity measures will not include the implementation of a tiered model of instruction, it will provide teachers with guidance on determining how to prioritize and/or sort data as it relates to student needs.

There will be three tiers, or gradations, of data collection teachers will be instructed to use relative to students' educational needs within this one treatment group. Students may move in and out different tiers of data collection based on ongoing performance outcomes that result from data that is collected. Further, while teachers will not be told how to instruct students or

change instruction based on student needs, resources will be provided to teachers to allow them to determine evidence-based practices for use as they see fit. Thus, the study will include a component of ongoing teacher professional development which will focus on creating and using data collection methods, as well as guidance regarding how to determine what data to collect and how often. As a result, upon commencement of the study, students' school-readiness outcomes will be compared to teachers' data collection efforts. Does the simple act of collecting more frequent data improve student outcomes? Does tiered data collection make the collection more manageable, efficient, or valuable?

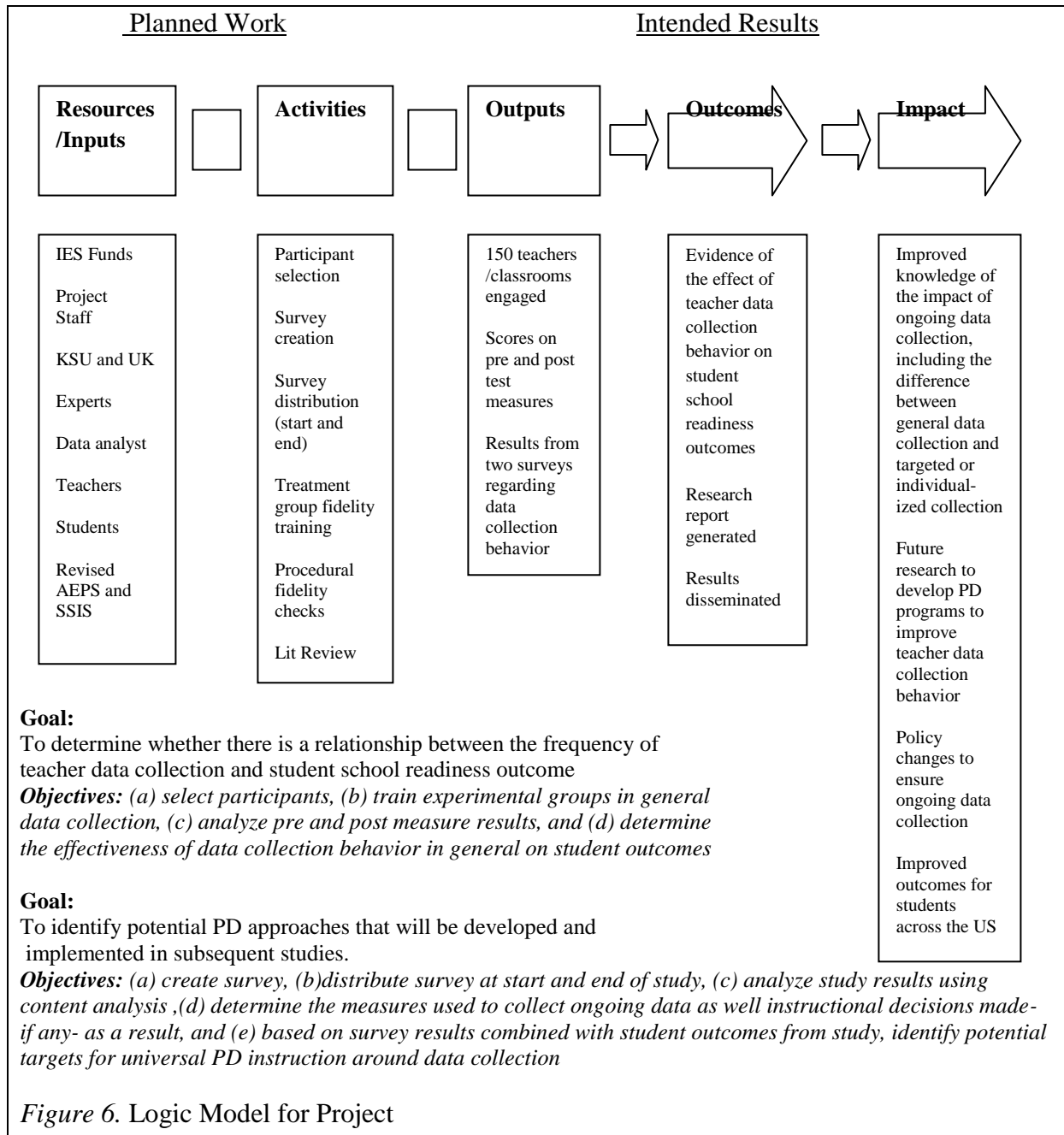


Figure 6. Logic Model for Project

To reiterate, the purpose of the proposed Project is to establish whether the teacher behavior of ongoing data collection improves preschool students' school readiness outcomes, particularly for children at-risk for later academic challenges. The focus of the Project is to determine to what extent ongoing data collection- irrelevant of the specific measures or methods used to collect data, or the particular resultant instructional decisions made as a result of data collection- affects students learning outcomes. Thus, the proposed study would seek to generate sound hypotheses related to the effect of varying the frequency of data collection according to student need on the school-readiness outcomes of PreK children. Additional hypotheses may be generated after data analysis regarding the data-driven decision-making process of PreK teachers. Research questions are as follows:

1. What is the relationship between frequency of data collection and school-readiness outcomes?
2. What is the relationship between frequency of data collection relative to students' identified needs and their school-readiness outcomes?
3. What methods of data collection are used, and what instructional decisions are made as a result of data collection?

### **Methodology**

The proposed project is designed to address IES agency priorities as described for the Exploration goal (Goal 1) as it is related to the Early Learning Programs and Policies topic. Table 5 in the appendix demonstrates how the proposed project aligns to the RFA for this competition. Further, Table 1 (on the following page) describes the activities, deliverables, timelines, and Project personnel/key participants associated with the two phases of the Project.

Table 1

*Summary of Project Activities, Outcomes/Deliverables, Timeline, and Personnel across Two Phases*

Phase One					Phase Two			
	1 <sup>st</sup> Quarter Year One	2 <sup>nd</sup> Quarter Year One	3 <sup>rd</sup> Quarter Year One	4 <sup>th</sup> Quarter Year One	1 <sup>st</sup> Quarter Year Two	2 <sup>nd</sup> Quarter Year Two	3 <sup>rd</sup> Quarter Year Two	4 <sup>th</sup> Quarter Year Two
Project Activities								
Randomly select classrooms for invitation and randomly assign participants to research conditions	Deliverables: Study participants identified, and randomly assigned to one of three research conditions  Personnel: PIs, PC, PRA							
Data collection behavior survey is created	Deliverables: survey is edited and finalized  Personnel: RAs, PI, PRA,PC							
Provide participants with survey related to data collection behaviors and knowledge (beginning)		Deliverables: Survey delivered to all participants. Teachers that want to complete it with staff have RAs visit.  Personnel: PC, PRA, RAs						
Training sessions (in-person and/or online) are developed by Project personnel (Tiered data collection experts assist with development of training modules for tiered data collection group)	Deliverables: Training materials are created (schedules, plans, and modules)  Personnel: PIs, PC, PRA, TDC experts, RAs							

*(table continues)*

Table 1 (continued)

*Summary of Project Activities, Outcomes/Deliverables, Timeline, and Personnel across Two Phases*

	Phase One				Phase Two			
	1 <sup>st</sup> Quarter Year One	2 <sup>nd</sup> Quarter Year One	3 <sup>rd</sup> Quarter Year One	4 <sup>th</sup> Quarter Year One	1 <sup>st</sup> Quarter Year Two	2 <sup>nd</sup> Quarter Year Two	3 <sup>rd</sup> Quarter Year Two	4 <sup>th</sup> Quarter Year Two
Project Activities								
Training sessions are provided to experimental/treatment groups			Deliverables: Study participants identified, and randomly assigned to one of three research conditions  Personnel: Pls, PC, PRA, TDC experts					
Participant teachers provide relevant scales of the Revised AEPS and the SSIS to students (pre-test)					Deliverables: student scores are generated  Personnel: RAs, PC, PRA, teachers			
Student data is collected according to training schedule throughout the academic year; RAs visit classrooms/teachers to assist as needed					Deliverables: data sheets/information sent to PC  Personnel: PC, PRA, RAs			
Participant teachers provide relevant scales of the Revised AEPS and the SSIS to students (post-test)						Deliverables: student scores are generated  Personnel: RAs, PC, PRA, teachers		

*(table continues)*

Table 1 (continued)

*Summary of Project Activities, Outcomes/Deliverables, Timeline, and Personnel across Two Phases*

	Phase One				Phase Two			
	1 <sup>st</sup> Quarter Year One	2 <sup>nd</sup> Quarter Year One	3 <sup>rd</sup> Quarter Year One	4 <sup>th</sup> Quarter Year One	1 <sup>st</sup> Quarter Year Two	2 <sup>nd</sup> Quarter Year Two	3 <sup>rd</sup> Quarter Year Two	4 <sup>th</sup> Quarter Year Two
Project Activities								
Provide participants with survey related to data collection behaviors and knowledge (concluding)							Deliverables: Survey delivered to all participants. Teachers that want to complete it with staff have RAs visit.  Personnel: PC, PRA, RAs	
Conduct content analysis on data collection survey results							Deliverables: content analysis completed  Personnel: RAs, PC, PRA, PIs	
Analyze pre-test and post-test measures							Deliverables: Factorial ANOVA and paired t-tests run. Conclusions Drawn.  Personnel: DC, PIs, PC	
Literature Review			Deliverables: literature review  Personnel: RAs, PC, PRA					
Research report written							Deliverables: research report  Personnel: PIs, PC	
Results prepared for dissemination							Deliverables: conference proposal  Personnel: PIs, PC	

## Research Design

There will be two phases to the proposed study. The first phase will occur during Project Year 1, and the final phase will take place during Project Year 2. In sum, the study will be experimental by design, employing a factorial 2x2x3 design. Three research conditions (a control group as well as two experimental groups- weekly data collection and tiered data collection) will be employed and student performance will be further stratified by examining the effect of each research condition on gender (male or female) and typical vs. at-risk children. Additional information about the proposed design and activities are provided in the Procedures section, and are designated by subheadings for each proposed phase.

**Control of Variables.** The effect of gender and at-risk status is controlled using the factorial ANOVA design by examining whether any identifiable treatment effect is more or less significant given these factors. Further, samples that are selected to participate will be drawn from a large pool of early childhood centers/teachers in the Midwest that have been found to be generally proportionate in demographics as it relates to national US Census data. Given the current economic downturn and the danger many early childhood programs are experiencing in terms of funding and job losses, it is likely that most schools are relatable on many such features. In this way, participants can be randomly selected from the population, and the sample under study (teachers and students) can be reasonably assumed to be generalizable to the greater population of the United States. In addition to a moderately large sample size, classrooms will be randomly assigned to one of three treatment conditions. Also, procedural fidelity will be assessed regularly for experimental groups to ensure that data collection is occurring as instructed during training sessions.

**Sample.** Samples that are selected to participate will be drawn from a large pool of schools/teachers in the Midwest that have been found to be generally proportionate in demographics as it relates to national US Census data. In this way, the population under study (teachers and students) can be reasonably assumed to be generalizable to the greater population of the United States. Participants will be placed into research conditions randomly, although it may be necessary to make adjustments regarding placement dependent upon the results of the initial data collection behavior survey. Teachers in the control condition must not be currently instituting a comprehensive, ongoing practice of routine data collection of student performance. The sample for this study is expected to yield sufficient power for the statistical analyses used (factorial ANOVA; paired t-tests) given the relatively large sample size.

## Measures/Data Sources

The Assessment, Evaluation, and Programming System (2002) will be used to address students' school readiness in the areas of literacy and numeracy. The Social Skills Improvement System (SSIS) will be used to measure students' social skills and any competing problem behaviors. Further, Project staff will develop a survey regarding teacher data collection practices that will be administered during both phases of the project.

Table 2  
*Outcomes, Measures Used, and Data Collection Schedule*

Outcome	Participant Targeted	Measures Used	Data Collection Schedule
Literacy	students	Revised AEPS	Pre-K: fall/spring, K: spring
Numeracy	students	Revised AEPS	Pre-K: fall/spring, K: spring
PreK Behavior (Social/Emotional)	students	SSIS Social Skills SSIS Competing Problem Behaviors	Pre-K: fall/spring
Data collection practices	teachers	Staff-developed survey	Quarter 2 and 3 of both Phase I and II

**Validity and Reliability of Student Outcome Measures.** A number of studies have been done that evaluate the psychometric properties of the AEPS. Gao (2008) found significant correlation between the BDI-II and the AEPS, in addition to a perception by teachers that the AEPS is a preferable and useful assessment tool. Grisham-Brown, Hallam, and Pretti-Frontczak (2008) found that the AEPS provides reliable information for accountability purposes. Further, Noh (2005) established that there are strong relationships across items in domains and domain scores, consistent inter-rater reliability, and sufficient sensitivity between typical and atypical children.

Regarding the SSIS, Gresham, Elliot, Vance, & Cook (2011) compared the SSIS to its predecessor, the Social Skills Rating Scale (SSSR)- a validated measure commonly used to assess social/emotional skills (and used in previous IES-funded studies). It was found that the two measures had high internal consistency along with moderately high validity indices in the areas of total score for social skills and problem behavior scales. Reliability comparisons revealed that the SSIS was superior with regard to internal consistency. It was concluded that the SSIS provides superior psychometric results compared to the SSRS.

As a result of the satisfactory validity and reliability of these measures, combined with their authenticity for use in the field of early childhood, we are confident that these measures will dependably assess childrens' school readiness outcomes in the intended areas.

## Procedures

The procedures proposed for this Project will occur in two phases. Within each phase, specific activities are highlighted and described in the subsections that follow.

**Phase I.** This phase occurs during the first year of the Project and is broken into 4 separate quarters (see Table 1). During this phase, Project staff will invite, identify, and select participants; create a data collection practices survey and training materials/modules; and train all teachers selected to be in experimental/treatment groups (100). Tiered data collection experts will be hired as consultants to assist with the training development and implementation. All teachers, principals or site directors, and parents of students in invited classrooms will be provided with letters of informed consent. These letters will detail the aims and activities of the project, and will ensure that any consent needed for videotaping is secured

**Phase II.** This phase occurs during the second year of the Project. During this phase, teachers in all research conditions will administer the applicable scales of the AEPS and the SSIS as pre-test assessments. Pre and post measures used in the proposed Project are authentic in nature, and therefore rely heavily on observation. Research associates, the primary research assistant, and the project coordinator will conduct inter-observer checks during the administration of pre and post measures. To the extent possible, Project staff will travel to sites to observe administration. In the event this is not feasible, arrangements will be made for the administration of the assessments to video-taped so that Project staff may conduct agreement checks. Additionally, procedural fidelity will be gauged by ensuring that teachers are collecting data in the fashion (and at the rate) they were trained during Phase I. Although the actual data collection methods and resultant instructional decisions are expected to vary, all teachers in the experimental groups will be submitting their data collection sheets to the Project Coordinator on a weekly basis. By examining data sheets, staff can be assured as to the fidelity with which teachers are following frequency requirements. Further, research associates may visit locations and/or ask to randomly video-record via distance technology to ensure teachers are collecting the data as inferred by the collection sheets or management systems.

At the end of the academic year, teachers will again administer the AEPS and the SSIS as a posttest measure. Research staff will follow the same procedures as was done at pretest. The data collection practices survey will again be distributed to teachers.

### **Data Analysis**

A factorial ANOVA will be used to analyze variance between groups and across conditions. Further, pre-test and post-test measures (and thus a paired samples t-test will also be used to compare the difference of scores for each individual child pre and post) will be used to analyze the data. If gender or at-risk status is shown to correlate with the effect of the study conditions, an ANCOVA will also be run in order to assess the extent to which teacher data collection reliably predicts improved student readiness outcomes for all students. A content analysis will also be conducted on the results of the data collection practices surveys. The ANOVA is appropriate for measuring student outcomes given that it will allow for comparison to important subgroups. The ANCOVA may be useful if it is found that either major subgroup (gender or ability) clouds the overall results in general. The content analysis will provide valuable information related to the practices teachers use and whether participation in the study changed their perspectives. Such information will be useful in planning PD opportunities around the concept of data collection in the future.

### **Personnel**

The proposed Project utilizes key personnel with extensive expertise in the field early childhood education and intervention. The principal investigators (Dr. Kristie Pretti-Frontczak, Dr. Sanna Harjousola-Webb, and Dr. Jennifer Grisham-Brown) have extensive training and experience in the area of performance monitoring practices. Although this Project does not endeavor to explore specific practices involved with performance monitoring beyond data collection, the principal investigators are undoubtedly qualified to oversee a project of this nature and scope. More specifically, all three have taught courses that include components that focus on data collection and have written extensively on the topic of ongoing assessment. Further, the

three principal investigators have been involved with work around the development and implementation of tiered models in early childhood; the unique component of tiered data collection in this study will be greatly aided by their expertise.

Additionally, all have doctorates in the field of early childhood intervention and have vast experience working with state-funded pre-kindergarten and Head Start programs. Finally, all three have years of experience in collaboration around co-directing projects and conducting research. As an example, Drs. Pretti-Frontczak and Grisham-Brown have served as co-principal investigators on a leadership personnel preparation grant as well as on a model demonstration grant that examined the effects of a linked assessment and curriculum system on young children with significant disabilities. The qualifications of all PIs are provided next, followed by brief descriptions of other key Project personnel.

### **Kristie Pretti-Frontczak**

Dr. Pretti-Frontczak will serve as principal investigator for the project. She is a professor at the College and Graduate School of Education, Health, and Human Services in the School of Lifespan Development and Educational Sciences at Kent State University. She is the director of the Early Childhood Intervention graduate program and oversees one of the largest doctoral programs in the state. Dr. Pretti-Frontczak has extensive experience in the administration of state and federal grants including model demonstration projects, personnel preparation and various research, training, and evaluation projects. Additionally, she has published numerous articles and books regarding authentic assessment, performance monitoring, and data-driven decision-making. She has also presented on these topics at national and state conferences. Further, she served as lead author on a recent paper regarding recommended practices released by the Division of the Early Childhood (DEC), and has co-authored two widely-respected books on blended practices (both of which include chapters devoted specifically to the topic of ongoing data collection). Dr. Pretti-Frontczak is known as a national expert in the area of authentic assessment, curriculum frameworks, and tiered models of instruction. She will have primary responsibility for the administration of the project at Kent State University, and will assist in the initial selection of participants, development of data collection surveys and training materials/modules, and the writing and dissemination of results.

### **Sanna Harjusola-Webb**

Dr. Harjusola-Webb will serve as co-principal investigator for the project. She is an assistant professor in early childhood intervention at the College and Graduate School of Education, Health, and Human Services in the School of Lifespan Development and Educational Sciences at Kent State University. She has been strongly involved in several federally funded projects at the Juniper Gardens Children's Project working with young children and their caregivers. She has experience in the administration of a grant which utilized distance technology to train early childhood interventionists, and has participated in the validation process of a set of practical general outcome measures for use by early childhood interventionists for measuring young children's growth in communication. Dr. Harjusola-Webb is currently investigating the effects of intervention fidelity as it relates to response to intervention and individual progress over time. She will assist in the initial selection of participants, development of data collection surveys and training materials/modules, and the writing and dissemination of results.

**Dr. Jennifer Grisham-Brown**

Dr. Jennifer Grisham-Brown will serve as a co-principal investigator for the Project. She is an associate professor in the Department of Special Education and Rehabilitative Counseling and is faculty director of the UK Early Childhood Laboratory School. Her experiences as a teacher, preschool director, technical assistance provider, and professor have afforded her numerous opportunities to work with young children, teachers, and other school personnel to design, implement, and evaluate early childhood assessments and interventions. She has been the director/so-investigator for five (5) federal projects providing her with experience using a variety of research methodologies including those proposed in this grant. She has directed two (2) projects that specifically examined the use of Curriculum-based assessments to report program and state standards, with a focus on model development. Her research is focused on assessments and interventions that promote inclusion of children with disabilities in early childhood settings (public preschool and Head Start) and has published widely in these areas. She co-authored both Blended Practices books with Dr. Pretti-Frontczak. Dr. Grisham-Brown will coordinate the project at UK and will assist in the initial selection of participants, development of data collection surveys and training materials/modules, and the writing and dissemination of results.

**Project Coordinator (Ashley Lyons)**

Ashley Lyons is a doctoral student at Kent State University. She received her B.S. in special education as an intervention specialist (mild-moderate), with a minor in philosophy, from Kent State in 2005. After working for several years in a private preschool, she returned to KSU to renew her teaching licensure. At that time, given her experience with young children, she switched gears to early childhood intervention. Ashley is a member of DEC and has served as the student leadership chair for ODEC since 2009. She is passionate about advocating for young children and their families and pushing for systems-level changes that will improve the funding, implementation, and accessibility of services in early childhood education and intervention. Her research interests and areas of current work include the capacity of various technologies for improving data management strategies, data collection, and performance monitoring in the classroom; tiered instruction and universal design for learning; and bridging the gap between evidence-based practices/research and practitioner realities. Ashley has several years of experience in the area of performance Education while working on her doctorate. Carrie has extensive experience in the area of performance monitoring, data-driven decision-making, and data collection, having co-written a chapter, moderated a DEC webinar, work on several current articles, and upcoming presentations at a wide variety of national and state conferences on the topic.

**Primary Research Assistant (Carrie Pfeiffer-Fiala)**

Carrie Pfeiffer-Fiala is a doctoral student at Kent State University. She is currently researching tiered instruction, fidelity of implementation, and embedded learning opportunities. After teaching and administrating programs for diverse students for 18 years, Carrie is now teaching part-time in Higher Education while working on her doctorate. Carrie has extensive experience in the area of performance monitoring, data-driven decision-making, and data collection, having co-written several articles and chapters and presented at a wide variety of national and state conferences on the topic.

**Research Associates (TBA)**

Doctorial level students from Kent State University and the University of Kentucky will participate as research associates. These students will have knowledge and experience in the area of data collection and performance monitoring, and will be trained and prepared to serve as supports for teacher participants.

Given the extensive expertise and national recognition of Project personnel, we are confident that we will be able to successfully carry out all project goals and objectives. Table 3 provides the Person Loading Chart indicating the time each member of the Project staff will engage in particular Project activities.

Table 3.

*Person Loading Chart*

Activity	Percentage of Devoted Time by Person							
	PI: KPF	PI: SHW	PI: JGB	PC: ANL	PRA: CPF	RA:	TDC Experts	Data Analyst
Library Research	NA	NA	NA	14.35% of 1 FY (Yr 1)	5% of 9 months AY (Yr 1) 10% of 9 months AY (Yr 1)	25% of 9 months AY (Yr 1 and 2)	NA	NA
Recruit classrooms for invitation	15% of 1.35 months AY (Yr 1)	15% of 1.35 months AY (Yr 1)	15% of 1.35 months AY (Yr 1)	14.35% of 1 FY (Yr 1)	15% of 9 months AY (Yr 1)	NA	NA	NA
Select participants	25% of 1,35 months AY (Yr 1)	25% of 1,35 months AY (Yr 1)	25% of 1,35 months AY (Yr 1)	14.35% of 1 FY (Yr 1)	15% of 9 months AY (Yr 1)	NA	NA	NA
Create surveys	25% of 1.35 months AY (Yr 1)	25% of 1.35 months AY (Yr 1)	25% of 1.35 months AY (Yr 1)	14.35% of 1 FY (Yr 1)	25% of 9 months AY (Yr 1)	25% of 9 months AY (Yr 1)	NA	NA
Distribute surveys; provide support	NA	NA		14.35% of 1 FY (Yr 1)	5% of 9 months AY (Yr 1)	25% of 9 months AY (Yr 1)	NA	NA
Develop training materials/modules	35% of 1.35 months AY; 25% of one month summer (Yr 1)	35% of 1.35 months AY; one month summer (Yr 1)	35% of 1.35 months AY; one month summer (Yr 1)	14.35% of 1 FY (Yr 1)	25% of 9 months AY (Yr 1)	25% of 9 months AY (Yr 1)	50% of one month summer (Yr 1)	NA
Train teachers in experimental groups	75 % of one month summer (Yr 1)	75 % of one month summer (Yr 1)	75 % of one month summer (Yr 1)	14.35% of 1 FY (Yr 1)	10% of 9 months AY (Yr 1)	NA	50% of one month summer (Yr 1)	NA
Complete Procedural Fidelity Checks	NA	NA	NA	14.35% of 1 FY (Yr 2)	20% of 9 months AY (Yr 2)	15% of 9 months AY (Yr 2)	NA	NA
Collect weekly data from teachers	NA	NA	NA	14.35% of 1 FY (Yr 2)	20% of 9 months AY (Yr 2)	35% of 9 months AY (Yr 2)	NA	NA
Analyze pre and post measure data	10% of 1,35 months AY (Yr 2)	10% of 1,35 months AY (Yr 2)	10% of 1,35 months AY (Yr 2)	14.35% of 1 FY (Yr 2)	15% of 9 months AY (Yr 2)	NA	NA	100% of one month summer (Yr 2)
Conduct content analysis on surveys	90% of 1,35 months AY (Yr 2)	90% of 1,35 months AY (Yr 2)	90% of 1,35 months AY (Yr 2)	14.35% of 1 FY (Yr 2)	35% of 9 months AY (Yr 2)	25% of 9 months AY (Yr 2)	NA	NA
Contribute to writing report	75 % of one month summer (Yr 2)	75 % of one month summer (Yr 2)	75 % of one month summer (Yr 2)	14.35% of 1 FY (Yr 2)	NA	NA	NA	NA
Disseminate results	75 % of one month summer (Yr 2)	75 % of one month summer (Yr 2)	75 % of one month summer (Yr 2)	14.35% of 1 FY (Yr 2)	NA	NA	NA	NA

## **Resources**

Kent State University (KSU) and the University of Kentucky (UK) have the necessary resources to implement the proposed project. In addition, these two universities have a history of collaboration when conducting research, working on grants, and disseminating the results of research at national conferences (see explanation provided in the Personnel section).

### **Kent State University**

With roughly 35,000 students at eight regional campuses, Kent State is Ohio's third largest public university and serves approximately one quarter of the state. Kent State ranks among just 3.8 percent of the nation's nearly 3,900 colleges and universities, and is one of just 90 public institutions that is designated as a Carnegie Foundation Doctoral/Research University-Extensive. Kent State is nationally recognized for more than just its rich history; it also is widely known for innovative research, its breadth of high-quality undergraduate programs, and graduate studies- including doctoral programs- in selected areas. In the area of Early Childhood Intervention, Kent State is currently home to nearly two dozen doctoral students and candidates across Ohio, Michigan, and Iowa. The College and Graduate School of Education, Health, and Human Services provides strong preparation for aspiring classroom teachers, doctoral students, and a wide range of other educational and psychology field careers. Each faculty member at the College have both an on-campus office computer as well as a university-licensed laptop for work away from the university. Access to the internet is provided by Ethernet and/or wireless connection on campus, and the University's library database is accessible to both faculty and students while on campus or off through the use of VPN system. The College also houses an Instructional Resource Center (IRC) that is available to faculty, staff, and students for select educational and/or computer needs such as borrowing assessments and certain computer technologies, and computer assistance such as software/hardware configuration, downloads, support, and other services are provided by computer specialists. An online system known as Tech Ticket allows faculty and students of the College and Graduate School of Education, Health, and Human Services to submit requests for assistance in a timely and efficient manner. Other resources include multiple computer labs; distance education/communication technologies including video-conferencing materials; research and design consultation services; and other facilities found at major universities.

### **University of Kentucky**

UK provides extensive support for instruction, research, and service to its approximately 5200 graduate students. UK ranks among the top 100 research institutions in the nation and is also designated as a Doctoral/Research University-Extensive by the Carnegie Foundation. It is fully accredited by NCATE and the Southern Association of Colleges and Schools. Each faculty member in the College of Education is provided with their own office and at least one state-of-the-art computer with Ethernet and Internet connections, printer with email, and library on-line access. The college has a Technology coordinator that assists professors with hardware and software computer questions or problems. Other resources available to support the research program include a computer center which houses a new IBM mainframe super computer; research and design consultation; a film library; an instructional television production center; and other facilities found at major universities.

### Awards

The proposed Project will consist entirely of data collected during the course of the project. The proposed budget falls within the guidelines of the RFA for Goal 1. The following figure provides a summary of costs related to the Project. Finally, descriptions of the costs involved with the proposed Project are described in the sub-sections that follow.

<b>TOTAL DIRECT COSTS</b>	
<i>Year 1: \$ 309490</i>	<i>Year 2: \$ 339748</i>
<b>TOTAL INDIRECT COSTS (F&amp;A)</b>	
<i>Year 1: \$ 48,476</i>	<i>Year 2: \$ 54,817</i>
<b>TOTAL DIRECT AND INDIRECT COSTS</b>	
<i>Year 1: \$ 357,966</i>	<i>Year 2: \$ 394,565</i>
<b>GRAND TOTAL = \$ 752,531</b>	
<i>Figure 1. Summary of Total Costs</i>	

### Budget Justification

This section provides a justification for the expenditures that are proposed in the line item budget. The narrative is presented according to major categories of expenditure. The narrative addresses the line items associated with direct costs. Explanations are provided for the Kent State University (KSU) budget as well as for the sub-contract budget with the University of Kentucky (UK).

**Direct Costs.** Direct costs are those that are necessary for the implementation of the project. They include costs for staff, fringe benefits, travel, and other expenses that are necessary to fulfill the project' three major goals.

**Salaries and Wages.** The Principal Investigator, **Kristie-Pretti-Frontczak, PhD.**, is a professor at the school of Lifespan Development and Educational Sciences (LDES) at Kent State University. The Co-Principal Investigator Sanna Harjusola-Webb, PhD.; Project Coordinator Ashley Lyons, MEd; and Primary Research Assistant, Carrie Pfeiffer-Fiala, MEd; also will be employed by LDES. The salaries indicated in the line item budget represent projected salaries for the duration of the project. Both Principal Investigators (Pretti-Frontczak and Harjusola-Webb) will allocate 15% (1.35 months) of their time to the project during the academic year and one month of time during the summer for each year of the project. Pretti-Frontczak will manage project staff and fiscal resources, assist in the development and implementation of research activities, analyze research results, develop research materials and protocols and develop reports and other products. Lyons will manage day-to-day operations of the project with an emphasis on data collection, but will also assist with data analysis, report writing, and management of the budget. In addition, the Project Coordinator will serve as a liaison between KSU and UK. The Primary Research Assistant will assist with subject recruitment, data collection, data entry and

project dissemination. The Project Coordinator and Primary Research Assistant will each allocate 100% of their time to the project. In addition to these personnel, 4 research associates will be hired part-time to support the intensive data collection, analysis, and observational efforts of the project. While hired through KSU, the data collectors may work from UK or any other location where assistance with data collection and other research/project activities is needed.

**Fringe Benefits.** *Kent State University:* The items for faculty/staff listed under the heading Fringe Benefits are those that are either required by the University. Faculty and staff benefits are calculated at 22.95%. Medical insurance is charged separately and the amount charged will be pro-rated for the staff and faculty, according to their time contributions to the project. Life insurance is charged separately and the amount charges will also be prorated. Faculty staff insurance assumes a 10.5% annual increase. For others, the cost of medical insurance continues to skyrocket, while at the same time students continue to find it difficult to obtain affordable coverage. Thus, as an incentive to devote significant time and effort to the grant, students will be provided with the student health insurance plan available through the university. Benefits are calculated at \$900 per student for medical insurance during the first year and \$1225 per student during the second year, assuming a 25% increase in medical costs. FICA contributions for students have been requested at a rate of 7.65% of their stipend amount (FICA must be covered given that students are provided the option of opting out of FICA during regular university employment).

**Travel .** Funding is requested for both in-state and out-of-state travel. The funds requested are for specific activities vital to the implementation of the project. In-state travel funds are essential to visiting participating teachers for training, observation, and fidelity checks. Mileage is requested at a rate of .50/mile for both KSU and UK. Out-of-state funds will be necessary for research staff to complete these same activities at sites outside of the two primary states (i.e., Ohio and Kentucky). Funds are also requested for project PIs to attend annual Project Director's meetings. Finally, project findings will be presented at various national conferences (e.g, DEC, NAEYC) and will therefore require out-of-state travel. Out-of-state travel is budgeted for a \$150 per diem rate which includes hotel accommodations and \$500 for airfare (average for coach travel).

**Equipment.** Funding is requested to purchase laptops for the project coordinator and the primary research assistant so that they can enter data while in the field to expedite data analysis. Laptops will also be taken on location to participant sites to share information.

**Supplies.** Funding for supplies is being requested to cover expenses for ongoing implementation and data collection procedures for the proposed project. Statistical software (advanced SPSS) is needed for data analyses. Pretest and posttest measures needed to assess children's school readiness will need to be purchased in year 1 for the commencement of data collection in year 2. Specifically, funds are requested to purchase scoring protocols for the Revised AEPS and the SSIS, as well as the SSIS training manual (PIs have copies of the Revised AEPS manual currently). Funds for the creation and distribution of training materials during Year 1 are also requested.

**Contractual.** Two types of contractual agreements are needed to implement the proposed project. First, funds are requested to support a subcontract with the University of Kentucky (UK), as it is intended that they will be responsible for approximately one-half of the data collection activities. A separate itemized budget for the UK subcontract is included. This subcontract is necessary for a variety of reasons. First, data will be collected from teachers in many different areas throughout the Midwest. In addition, the PI at KSU (Pretti-Frontczak) has worked collaboratively with the PI at UK (Grisham-Brown) on many past projects. Their history of collaboration will facilitate the implementation of nation-wide data collection.

Second, funds are requested in the amount of \$35/hour/person for one month to contract with two individuals (TBA) that are well-known for their work and expertise in the area of tiered data collection. These two experts will assist research staff and experimental group teachers in identifying which student need to target for data collection. They will similarly provide training to teachers in the tiered data collection experimental group prior to the commencement of actual data collection. Additionally, a data analyst is requested at the cost of \$35/hour to assist research staff in analyzing the vast amounts of data collected during the final phases of the study.

**Other Direct Costs.** Incentives will be needed to help ensure consistent teachers' participation in data collection activities. Teachers will be asked to complete the literacy and numeracy sections of the Revised Assessment, Evaluation, and Planning System (AEPS) in addition to the Social Skills and Competing Problem Behaviors portions of the Social Skills Improvement System (SSIS) at both the start and end of the academic year during the 2<sup>nd</sup> year of the project; an incentive of \$25 for the administration of each test (AEPS and SSIS) will be offered. Further, teachers in experimental groups (100) will be collecting data on students frequently during Project Year II, and therefore an incentive of \$150 for the academic year will be provided to teachers that participate in experimental conditions. In addition, \$50 will be provided to all teacher participants (150) each time they complete a comprehensive survey regarding data collection behavior; these surveys will be administered during years I and II of the project. All incentives will be distributed through Kent State University.

Due to the amount of out-of-area calling, \$60 per month is requested to cover long distance telephone charges at twelve preliminary sites. Sixty dollars per month is also requested to cover the cost of consent forms and parent correspondence postage, while fax supplies are estimated to be \$35 per month. Meeting room expenses are being requested for research team meetings. Funds for meeting rooms are requested at a rate of 1500/year at both Kent State and University of Kentucky. Training supplies (paper, pens, name tags, etc) and AV equipment rental are included in the requested amount.

**Indirect Costs.** In accordance with the requirements of the grant, indirect costs are limited to off-campus rates (at both Universities). At both KSU and UK, this rate is 26% of the Modified Total Direct Cost (MTDC) which excludes equipment, tuition, and subcontract amounts over the first \$25,000 of each subcontract.

### **Project Summary**

The purpose of the proposed Project is to address Goal 1 and is designed to establish whether the teacher behavior of ongoing data collection improves preschool students' school readiness outcomes, particularly for children at-risk for later academic challenges. The focus of the Project is to determine to what extent ongoing data collection- irrelevant of the specific

measures or methods used to collect data, or the particular resultant instructional decisions made as a result of data collection- affects students learning outcomes. Results of the proposed Project will lend evidence as to whether the simple behavior of ongoing data collection, *in and of itself*, is sufficient in improving students' academic development and readiness. Dependent upon the evidence the study yields, future studies (and proposals submitted to IES) can center upon the development of professional development activities and/or programs that address the need for regular collection of student performance data.

This Project is unique in the sense that it addresses the use of data collection at different frequencies relative to student needs, as well as routine data collection overall. If significant differences are observed between these two approaches of data collection, evidence regarding the utility of individualized data collection frequencies- or a tiered model of data collection- will be provided.

**Examining the Relationship between Frequency of Teacher Data Collection and School-Readiness Outcomes**

(Topic 11: Early Learning Programs and Policies; Goal 1: Exploration)

**APPENDIX A**

Main Budget- Kent State University			
LINE ITEM	2012-2013	FEDERAL FUNDS REQUESTED	
		2013-2014	
<b>1. PERSONNEL</b>			
1. Principal Investigator		94568	97405
K Pretti-Frontczak .15 FTE @ 94568 AY (1.35mo)	14186	14611	
1.1 Mo Summer (.1 FTE)	9457	9741	
Fringe Benefits (22.95% salary)		5426	5589
Health & Life (10% FTE plus 12)		2379	2450
<b>2. Co-Principal Investigator</b>		86000	88580
Sanna Harjusola-Webb .15 FTE @86000 AY (1.35 mo)	12900	13287	
1.1 Mo Summer (.1 FTE)	8600	8858	
Fringe Benefits		4934	5082
Health and Life		2165	2230
<b>3. Project Coordinator, Ashley Lyons</b>			
1.0 FTE @ 25200 FY	25,200	25,956	
<b>4. Primary Research Assistant, Carrie Pfeiffer-Fiala @ 1800/mo. X9 mos.</b>	16,200	16,200	
<b>5. Research Associates @ \$15/hr x 20 hrs/week x 36 weeks</b>	21600	21600	
<b>Total Salaries</b>	108143	110253	
<b>2. FRINGE BENEFITS</b>			
Faculty/Staff @ 22.95% for each (KPF, SHW)	10,360	10,671	
Health & Life Insurance - Faculty/ Staff @ 10 % for Health, \$15/yr for Life, each	4,535	4,671	
Student Health @ 900/4 students in Yr 1; 25% increase in Yr 2	3,600	4,500	
Fica for Research Associates @ 7.65%	1,653	1,653	
<b>Total Fringe Benefits</b>	20,148	21,495	
<b>Cumulative Total</b>	128,291	131,748	
<b>3. TRAVEL</b>			
1. <i>In-State</i>			
Travel for research staff @ .50/mile	1,250	1,250	
2. <i>Out-of-State</i>			
Travel for research staff to collect data	1,000	1,000	
Travel for Project Directors Meeting	1,500	1,500	
Travel for Conference Presentations	1,000	2,500	
<b>Total Travel</b>	4,750	6,250	
<b>Cumulative Total</b>	133,041	137,998	
<b>4. EQUIPMENT</b>			
Laptops for Project Coordinator and Primary Research Assistant	3,000	0	
<b>Total Equipment</b>	3000		
<b>Cumulative Total</b>	136,041	137998	
<b>5. SUPPLIES</b>			
1. <i>Resource Supplies</i>			
SPSS Faculty Pack x 5 (Pis, Project Coordinator, and Primary Research Assistant @ \$275/yr each)	1,375	1375	
Teacher training materials for experimental groups (creation and distribution of manuals online and hard copy) @ 250 x 100	2,500		
Social Skills Improvement System 6 @ 120/each and Protocols 14 pkgs @ 50/each	1,420		
Copies of Revised AEPS Test - 350 x \$3.00/each	1050		
<b>Total Supplies</b>	6,345	1375	
<b>Cumulative Total</b>	142,386	139373	
<b>6. CONTRACTUAL</b>			
1. University of Kentucky (included above, but specified separate here)	95,090	99,938	
2. Tiered Data Collection Expert Panel @ \$35/hr x 160 hours x 2 experts (Year 1 only)	11200	0	
3. Data Analyst @ \$35/hr x 160 hours (Year 2 only)	0	5,600	
<b>Total Contractual</b>	106290	105,538	
<b>Cumulative Total</b>	248676	244,911	
<b>7. OTHER</b>			
1. <i>Communications</i>			
Long Distance Telephone 12 mos. @60/mo. (each site)	720	720	
Fax Supplies/Usage fees 12 mos. @35/mo. (each site)	420	420	
Postage 12 months @60/mo. (each site)	720	720	
3. <i>Training/Meeting Expenses</i>			
Meeting expenses for research team	1,500	1,500	
3. Incentives for teachers to administer measures pre and post SSIS @ \$25/administration x300/yr (Year 2 only)		7,500	
4. Incentives for teachers to administer pre and post AEPS @ \$25/administration x 300/yr (Year 2 only)		7,500	
5. Incentives for teachers to complete data collection behavior surveys start and end of study @ \$50/survey/yr x 150 teachers	7,500	7,500	
6. Incentives for teachers in experimental groups to collect data @ 150/yr x 100 teachers (Year 2 only)		15,000	
<b>Total Other</b>	10,860	40,860	
<b>Cumulative Total</b>	259536	285,771	
<b>8. TUITION</b>			
1 full-time tuition Fall, Spring, & Summer (Kent State, at 9 credit hours/semester)	16,651	17,992	
3 full-time tuition Fall and Spring only (Kent State, at 9 credit hours/semester: CPF, 2 DC)	33,303	35,985	
<b>Total Tuition</b>	49,954	53,977	
<b>9. Total Direct Costs</b>	309490	339748	
<b>10. 26% MTDC (Direct Costs excluding equipment, tuition, subc. &gt;\$25,000)</b>	48,476	54,817	
<b>11. TOTAL BUDGET</b>	357,966	394,565	
<i>BASE for indirect cost</i>	186,446	210,833	
	48476	54817	

Figure 2. Main Budget by Year



LINE ITEM	TOTAL
<b>1. PERSONNEL</b>	
1. Principal Investigator	Salary
K Pretti-Frontczak .15 FTE @ 94568 AY (1.35mo)	28797
1.1 Mo Summer (.1 FTE)	19198
Fringe Benefits (22.95% salary)	
Health & Life (10% FTE plus 12)	
2. Co-Principal Investigator	
Sanna Harjusola-Webb .15 FTE @86000 AY (1.35 mo)	26187
1.1 Mo Summer (.1 FTE)	17458
Fringe Benefits	
Health and Life	
3. Project Coordinator, Ashley Lyons	
1.0 FTE @ 25200 FY	51,156
4. Primary Research Assistant, Carrie Pfeiffer-Fiala @ 1800/mo. X 9 mos.	32,400
5. Research Associates @ \$15/hr x 20 hrs/week x 36 weeks	43200
<b>Total Salaries</b>	<b>218396</b>
<b>2. FRINGE BENEFITS</b>	Benefits
Faculty/Staff @ 22.95% for each (KPF, SHW)	21,031
Health & Life Insurance - Faculty/ Staff @10 % for Health, \$15/yr for Life, each	9,206
Student Health @ 900/4 students in Yr 1; 25% increase in Yr 2	8,100
Fica for Research Associates @7.65%	3,306
<b>Total Fringe Benefits</b>	<b>41,643</b>
<b>Cumulative Total</b>	
<b>3. TRAVEL</b>	
1. <i>In-State</i>	Travel
Travel for research staff @ .50/mile	2,500
2. <i>Out-of-State</i>	
Travel for research staff to collect data	2,000
Travel for Project Directors Meeting	3,000
Travel for Conference Presentations	3,500
<b>Total Travel</b>	<b>11,000</b>
<b>Cumulative Total</b>	
<b>4. EQUIPMENT</b>	Equipment
Laptops for Project Coordinator and Primary Research Assistant	3,000
<b>Total Equipment</b>	
<b>Cumulative Total</b>	
<b>5. SUPPLIES</b>	Supplies
1. <i>Resource Supplies</i>	
SPSS Faculty Pack x 5 (Pis, Project Coordinator, and Primary Research Assistant @ \$275/yr each)	2,750
2. Teacher training materials for experimental groups (creation and distribution of manuals online and hard copy) @ 250 x 100	2,500
3. Social Skills Improvement System 6 @ 120/each and Protocols 14 pkgs @ 50/each	1,420
4. Copies of Revised AEPS Test - 350 x \$3.00/each	1,050
<b>Total Supplies</b>	<b>7,720</b>
<b>Cumulative Total</b>	
<b>6. CONTRACTUAL</b>	Contractual
1. University of Kentucky (included above, but specified separate here)	196,707
2. Tiered Data Collection Expert Panel @ \$35/hr x 160 hours x 2 experts (Year 1 only)	11,200
3. Data Analyst @ \$35/hr x 160 hours (Year 2 only)	5,600
<b>Total Contractual</b>	<b>211,828</b>
<b>Cumulative Total</b>	
<b>7. OTHER</b>	Other
1. <i>Communications</i>	
Long Distance Telephone 12 mos. @60/mo. (each site)	1,440
Fax Supplies/Usage fees 12 mos. @35/mo. (each site)	840
Postage 12 months @60/mo. (each site)	1,440
3. <i>Training/Meeting Expenses</i>	
Meeting expenses for research team	3,000
3. Incentives for teachers to administer measures pre and post SSIS @ \$25/administration x300/yr (Year 2 only)	7,500
4. Incentives for teachers to administer pre and post AEPS @ \$25/administration x 300/yr (Year 2 only)	7,500
5. Incentives for teachers to complete data collection behavior surveys start and end of study @ \$50/survey/yr x 150 teachers	15,000
6. Incentives for teachers in experimental groups to collect data @ 150/yr x 100 teachers (Year 2 only)	15,000
<b>Total Other</b>	<b>51,720</b>
<b>Cumulative Total</b>	
<b>8. TUITION</b>	Tuition
1 full-time tuition Fall, Spring, & Summer (Kent State, at 9 credit hours/semester)	34,643
3 full-time tuition Fall and Spring only (Kent State, at 9 credit hours/semester: CPF, 2 DC)	69,288
<b>Total Tuition</b>	<b>103,931</b>
<b>9. Total Direct Costs</b>	<b>649,238</b>
10. 26% MTDC (Direct Costs excluding equipment, tuition, subc. >\$25,000)	97,136
<b>11. TOTAL BUDGET</b>	<b>746,374</b>
	<i>BASE for indirect cost</i>
	200429
	97136

Figure 4. Main Budget Totals for Project

LINE ITEM		
<b>1. PERSONNEL</b>	Salary	
1. Principal Investigator (sub-contract with UK)		
J Grisham-Brown .15 FTE @ 86961 AY (1.35mo)	26,611	
1.1 Mo Summer (.1 FTE)	17,741	
2. 2 Research Associates @ \$15/hr x 20 hrs/week x 36 weeks	43200	
<b>Total Salaries</b>	<b>87,552</b>	
<b>2. FRINGE BENEFITS</b>	Fringe	
Faculty/Staff @ 22.95% for each (JGB)	10,179	
Health & Life Insurance - Faculty/ Staff @10 % for Health, \$15/yr for Life, each	4,465	
Student Health @ 900/2 students in Yr 1; 25% increase in Yr 2	4,050	
Fica for Research Associates @7.65%	3,306	
<b>Total Fringe Benefits</b>	22,000	Cumulative
<b>Cumulative Total</b>		109,552
<b>3. TRAVEL</b>		
1. <i>In-State</i>	Travel	
Travel for research staff @ .50/mile	2,500	
2. <i>Out-of-State</i>		
Travel for research staff to collect data	2,000	
Travel for Project Directors Meeting	3,000	
Travel for Conference Presentations	3,500	
<b>Total Travel</b>	<b>11,000</b>	Cumulative
<b>Cumulative Total</b>		120,552
<b>4. Equipment</b>		0
<b>5. Supplies</b>		0
<b>6. Contractual</b>		
<b>7. Other</b>		
<i>Training/Meeting Expenses</i>		
Meeting expenses for research team	3000	
<b>Total Other</b>	3000	Cumulative
<b>Cumulative Total</b>		123552
<b>8. Tuition</b>		
2 full-time tuition(s) Fall and Spring only (University of Kentucky, at 9 credit hour/semester)	27,406	
<b>Total Tuition</b>	27,406	
		Total Direct
<b>9. Total Direct Costs</b>		150958
10. 26% MTDC (Direct Costs excluding equipment, tuition, subc. >\$25,000)		<b>45,749</b>
<b>11. TOTAL BUDGET</b>		<b>196,707</b>
	<i>BASE for indirect cost</i>	175,958
		45749

Figure 5. Subcontract Totals for Project

Kristie L. Pretti-Frontczak  
 College of Education, Health, and Human Services  
 Lifespan Development and Educational Sciences Department  
 Special Education Program  
 Early Childhood Intervention  
 Kent State University  
 Kent, OH 44242  
 (330) 672-0597 (voice mail)  
[kprettif@kent.edu](mailto:kprettif@kent.edu)

### EDUCATIONAL BACKGROUND

*Ph.D., Special Education - Early Intervention*

1996 - University of Oregon, Eugene

*M.S., Special Education - Early Intervention*

1993 - University of Oregon, Eugene

*B.S., Psychology*

1992 - Idaho State University, Pocatello

### **PROFESSIONAL EXPERIENCE**

2003-Present Associate Professor - Early Childhood Intervention, Kent State University

1997-2003 Assistant Professor – Early Childhood Intervention, Kent State University

1996-1997 Research Associate - Early Intervention Program, University of Oregon

1996-1998 Research Associate/Technical Assistance Coordinator - Teaching Research Division,  
Western Oregon State College

### **PUBLICATIONS**

#### **Refereed Journal Articles**

- Jackson, S., Pretti-Frontczak, K., Harjusola-Webb, S., Grisham-Brown, J., & Mulato, J. (in review). Response to intervention: Implications for early childhood professionals. *Language, Speech, and Hearing Services in Schools*.
- Bricker, D., Clifford, J., Yovanoff, P., **Pretti-Frontczak, K.**, Waddell, M., Allen, D., & Hoselton, R. (2008). Eligibility determination using a curriculum-based assessment: A further examination. *Journal of Early Intervention*. Prepublished August, 2008; DOI: 10.1177/1053815108324422.
- Grisham-Brown, J., Hallam, R., & **Pretti-Frontczak, K.** (2008). Preparing Head Start personnel to use a curriculum based assessment: A model for implementation in the age of accountability. *Journal of Early Intervention, 30*(4), 271-281.
- Pretti-Frontczak, K., McGough, S., Vilardo, L., & Tankersley, M.** (2006). Examination of eco-behavioral assessments designed for understanding complex behaviors and environments. *Journal of Early and Intensive Behavior Intervention, 3*(1), 81-102.
- Pretti-Frontczak, K., Barr, D. M., Macy, M., & Carter, A. M.** (2003). An annotated bibliography of research and resources related to activity-based intervention, embedded learning opportunities, and routines-based instruction. *Topics in Early Childhood Special Education, 23*(1), 29-39.
- Grisham-Brown, J. L., **Pretti-Frontczak, K.**, Hemmeter, M. L., & Ridgley, R. (2002). Teaching IEP goals and objectives in the context of classroom routines and activities. *Young Exceptional Children, 6*(1), 18-27.
- Pretti-Frontczak, K.** (2002). Using curriculum-based measures to promote a linked system approach. *Assessment and Effective Intervention, 27*(4), 15-21.
- Pretti-Frontczak, K., Kowalski, K., & Brown, R. D.** (2002). Preschool teachers' use of assessments and curricula: A statewide examination. *Exceptional Children, 69*(1), 109-123.

**Books**

Grisham Brown, J. L., Hemmeter, M. L., & **Pretti-Frontczak, K.** (2005). *Blended practices for teaching young children in inclusive settings*. Baltimore: Paul Brookes Publishing Company.

**Pretti-Frontczak, K.**, & Bricker, D. D. (2004). *An Activity-based approach to early intervention* (3<sup>rd</sup> ed.). Baltimore: Paul Brookes Publishing Company.

**Referred Monographs**

**Pretti-Frontczak, K.**, Jackson, S., Goss, S., Grisham-Brown, J., Horn, E., Harjusola-Webb, S., Lieber, J., & Matthews, D. (2007). A curriculum framework that supports quality early childhood education for all young children [Monograph]. *Young Exceptional Children*, 9, 16-28.

**Referred Other Publications**

**Pretti-Frontczak, K.**, McKeen, L., Grisham-Brown, J., Horn, E., Matthews, D., Lieber, J., & Sullivan, L. (2007). *Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation*. Missoula, Montana (DEC).

**Non-Referred Instructional Materials**

Bricker, D. D., **Pretti-Frontczak, K.**, Johnson, J., Straka, E., Slentz, K., Capt, B., & Waddell, M. (2002). *The Assessment, Evaluation and Programming System for Infants and Young Children: Vol. 1 AEPS Administration Guide for Birth to Three Years and Three to Six Years* (2<sup>nd</sup> ed.). Baltimore: Brookes.

- Translated and published in French, Korean, and Spanish

Bricker, D. D., Capt, B., **Pretti-Frontczak, K.**, Johnson, J., Slentz, K., Straka, E., & Waddell, M. (2002). *The Assessment, Evaluation and Programming System for Infants and Young Children: Vol.2 AEPS Items for Birth to Three Years and Three to Six Years* (2<sup>nd</sup> ed.). Baltimore: Brookes.

Bricker, D. D., Waddell, M., Capt, B., Johnson, J., **Pretti-Frontczak, K.**, Slentz, K., & Straka, E. (2002). *The Assessment, Evaluation and Programming System for Infants and Young Children: Vol.3 AEPS Curriculum for Birth to Three Years* (2<sup>nd</sup> ed.). Baltimore: Brookes.

Bricker, D. D., Waddell, M., Capt, B., Johnson, J., **Pretti-Frontczak, K.**, Slentz, K., & Straka, E. (2002). *The Assessment, Evaluation and Programming System for Infants and Young Children: Vol.4 AEPS Curriculum Three to Six Years* (2<sup>nd</sup> ed.). Baltimore: Brookes.

**Non-Referred Other Publications** (Proceedings, White Papers, Technical Papers)

Bricker, D., Allen, D., Clifford, J., **Pretti-Frontczak, K.**, Slentz, K., & Squires, J. (2007). *The relationship between the Ages and Stages Questionnaires (ASQ) and the Assessment, Evaluation and Programming System (AEPS) for infants and young children*. Early Intervention Research and Management Group: Eugene, OR.

Grisham-Brown, J., **Pretti-Frontczak, K.**, & Johnson, J. (2007). *Using AEPS® activities for individual and group assessment*. Baltimore: Paul H. Brookes Publishing Co.

**PRESENTATIONS AND WORKSHOPS****Referred International/National**

Bruckner, C.B., McLean, M., Snyder, P., Clifford, J., **Pretti-Frontczak, K.**, Winchell, B. (October 2008). *Revisiting early childhood assessment in an era of accountability: Response to intervention and diversity*. Pre-conference workshop to be presented at International Division for Early Childhood Annual Conference, Minneapolis, Minnesota.

Buysse, V., Coleman, M. Neitzel, J., Carta, J., **Pretti-Frontczak, K.**, Snyder, P., & McConnell, S. (October 2007). *Response to intervention in early childhood: A conversation with leaders in the field*. Panel presented at International Division for Early Childhood Annual Conference, Niagara Falls, Canada.

Kowalski, K., Douglas Brown, R., **Pretti-Frontczak, K.**, Uchida, C. H., & Sacks, D. F. (April 2007). *The accuracy of teachers' judgments for assessing young children's cognitive skills*. Paper presented at the American Educational Research Association, Chicago, Illinois.

**Pretti-Frontczak, K.**, Bricker, D., Grisham-Brown, J., Hallam, R., Ledet, T., McLean, M., & Missall, K. (February 2006). *Alternative assessment approaches to meeting accountability mandates: Issues and initial findings*. Panel presented at the Biennial Conference on Research Innovations in Early Intervention, San Diego, California.

- Grisham-Brown, J., **Pretti-Frontczak, K.**, Ridgley, R., Hawkins, S., & Winchell, B. (February 2006). *The effects of linked system on achieving pre-kindergarten standards*. Poster presented at the Biennial Conference on Research Innovations in Early Intervention, San Diego, California.
- Hallam, R., Grisham-Brown, J., & **Pretti-Frontczak, K.** (October 2005). *Meeting the demands of accountability through authentic assessment*. Paper presented at the International Division for Early Childhood Annual Conference, Portland, Oregon.
- Pretti-Frontczak, K.**, Grisham-Brown, J., & Hallam, R. (October 2005). *Supporting authentic assessment: Examining the concurrent validity of the BDI-2 and AEPS*. Poster presented at the International Division for Early Childhood Annual Conference, Portland, Oregon.
- Pretti-Frontczak, K.**, & Johnson, J. J. (February 2003). *Meaningful service and education plans: Ensuring family-guided, collaborative early intervention practices*. Paper presented at the Pac Rim Conference, Honolulu, Hawaii.
- Brown, R. D., Kowalski, K., **Pretti-Frontczak, K.**, Uchida, C., & Sacks, D. (April 2002). *The reliability of teachers' assessment of early cognitive development using a naturalistic observation instrument*. Paper presented at the 17<sup>th</sup> Annual Conference on Human Development, Charlotte, North Carolina.
- Pretti-Frontczak, K.**, & Grisham-Brown, J. (February 2002). *Measurement issues related to determining the efficacy of activity-based interventions for young children with special needs*. Panel presented at the Biennial Conference on Research Innovations in Early Intervention, San Diego, California.
- Pretti-Frontczak, K.**, & Maag, N. (December 2001). *Linking assessment, IEPs, and curriculum: A national study of preschool teachers*. Poster presented at the International Division for Early Childhood Annual Conference, Boston, Massachusetts.
- Odom, S., McWilliam, R., **Pretti-Frontczak, K.**, & Carta, J. (April 2001). *Observational assessment of early childhood education settings for children with and without disabilities: Classroom ecology and child behavior*. Symposium conducted at the American Educational Research Association, Seattle, Washington.
- Bricker, D., & **Pretti-Frontczak, K.** (November 1997). *Treatment validity of the Assessment, Evaluation and Programming System test for three to six years*. Paper presented at the International Division for Early Childhood Annual Conference, New Orleans, Louisiana.
- Invited International/National**
- Hebbeler, K., & **Pretti-Frontczak, K.** (September 2008). *Linking curriculum and outcomes: Meet the authors*. Webinar to be presented. Sponsored by the International Division for Early Childhood.
- Walker, D., Greenwood, C., **Pretti-Frontczak, K.**, Bram, L., & Madsen, D. (April 2006). *What is being done by assessment tool developers and publishers to address OSEP reporting needs?* Measuring Child and Family Outcomes NECTAC National TA Meeting, Albuquerque, New Mexico.
- Pretti-Frontczak, K.**, & Grisham-Brown, J. (April 2006). *Using curriculum-based assessments for accountability*. Measuring Child and Family Outcomes NECTAC National TA Meeting, Albuquerque, New Mexico.
- Walker, D., & **Pretti-Frontczak, K.** (December 2005). *Issues in selecting assessments for measuring outcomes for young children*. Paper presented at the OSEP National Early Childhood Conference, Washington, D.C.
- Pretti-Frontczak, K.**, & Grisham-Brown, J. (December 2004). *Aligning standards with authentic assessment practices*. Pre-Conference Workshop at the International Division for Early Childhood Annual Conference, Chicago, Illinois.
- Rous, B., Snyder, P., McLean, P., McCormick, K., **Pretti-Frontczak, K.**, & Hyson, M. (December 2004). *Position on Curriculum, Assessment, and Program Evaluation: Implications for young children with disabilities*. Paper presented at the International Division for Early Childhood Annual Conference, Chicago, Illinois.
- Referred State/Local**
- Pretti-Frontczak, K.**, Harjusola-Webb, S., & Jackson, S. (April 2008). *Response to intervention: What does it mean for preschool programs?* Paper to be presented at the Ohio Department of Education's Annual Early Childhood Conference, Columbus, Ohio.

**Invited State/Local**

**Pretti-Frontczak, K., & McGlothlin, D.** (October 2005). *Supporting all young learners: A framework for understanding standards, curriculum, and assessment*. Session presented at Office of Early Learning and School Readiness Curriculum and Assessment Institute, Columbus, Ohio.

**Pretti-Frontczak, K.,** (October 2005). *Curriculum-based assessments*. Session presented at Office of Early Learning and School Readiness Curriculum and Assessment Institute, Columbus, Ohio.

**Pretti-Frontczak, K.** (September 2002) *Individualizing intervention to meet the needs of all children*. Paper presented at the Birth to Three 2<sup>nd</sup> Annual Conference, Columbus, Ohio.

**Pretti-Frontczak, K.** (November 2000). *Activity-based intervention*. Session presented at Ohio Department of Education Annual Conference, Columbus, Ohio.

**Pretti-Frontczak, K.** (February 1999). *Activity-based intervention teleconference*. Project ENHANCE, Bowling Green State University, Bowling Green, Ohio.

**EXTERNAL PROJECTS**

**Funded Research (External)**

- Co-Principle Investigator, **Preparing Tomorrow’s ECI Leaders**, Kent State University, 10-1-05 through 9-30-09 (\$800,000 Total; \$574,00 KSU). *Leadership Personnel Preparation*, Office of Special Education Programs.
- Co-Principal Investigator, **PROJECT PLAY: Promoting Positive Learning Outcomes through an Activity Based Approach with Young Children with Severe Disabilities**. Kent State University – Sub-Contract with the University of Kentucky, 10-1-01 through 9-30-05 (\$700,000 Total; \$217,000 KSU). *Model Demonstration Competition*, Office of Special Education Programs.
- Principal Investigator, **Examining the Effects of Embedding Young Children’s Goals and Objectives in Daily Activities**. Kent State University, 1-1-98 through 12-30-01 (\$225,000). *Initial Career Award*, Office of Special Education Programs.

**International/National Involvement in Professional Organizations**

- Division for Early Childhood Executive Board, present – Nominated for Vice President
- Division for Early Childhood Standards Validation Work Group, 2006-present, Member
- Division for Early Childhood NAEYC Companion Paper Work Group, 2004-2007, Curriculum Area Chairperson

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**CURRICULUM VITA  
JENNIFER GRISHAM-BROWN**

**POSITION:** Associate Professor  
Department of Special Education and  
Rehabilitation Counseling  
229 Taylor Education Building  
University of Kentucky  
Lexington, KY 40506-0001

**ACADEMIC PREPARATION**

Ed.D. 1995	University of Kentucky, Lexington, Kentucky <i>Severe Disabilities, Early Childhood</i>
M.S. 1988	University of Kentucky, Lexington, Kentucky <i>Severe and Profound Handicaps</i>
B.A. 1983	University of Kentucky, Lexington, Kentucky <i>Trainable Mentally Handicapped and Elementary Education</i>

PROFESSIONAL EXPERIENCES

- 2004 to present Associate Professor, Department of Special Education and Rehabilitation Counseling, University of Kentucky, Lexington, Kentucky.
- 2003 to 2004 Associate Professor, Department of Family Studies, University of Kentucky, Lexington, Kentucky
- 2000 to 2003 Assistant Professor, Department of Family Studies, University of Kentucky, Lexington, Kentucky

PUBLICATIONS

\* = research-based articles

Articles in Refereed Journals

- Grisham-Brown, J. L.**, Pretti-Fronczak, K., & Hallam, R. (in press). Measuring child outcomes using authentic assessment practice. *Journal of Early Intervention*.\*
- Jackson, S., Harjusola-Webb, S., Pretti-Fronczak, K., & **Grisham-Brown, J.** and Romani, J. M. (in press). Response to Intervention: Implications for Early Childhood Professionals. *Language, Speech, and Hearing Services in Schools*.
- Hallam, R., **Grisham-Brown, J.**, Gao, X., & Brookshire, R. (2007). The effects of outcomes-driven authentic assessment on classroom quality. *Early Childhood Research and Practice*, 9, (2), 1-9.\*
- Grisham-Brown, J. L.**, Hallam, R. & Brookshire, R. (2006). Using authentic assessment to evidence children's progress towards early learning standards. *Early Childhood Education Journal*, 34(1), 47-53.
- Jung, L. A. & **Grisham-Brown, J. L.**, (2006). Moving from assessment information to IFSPs: Guidelines for a family-centered process. *Young Exceptional Children*, 9(2), 2-11.
- White, M. T., Garret, B., Kearns, J. F. & **Grisham-Brown, J. L.** (2003). Instruction and assessment: How students with deaf-blindness fare in large-scale alternate assessments. *Research & Practices for Persons with Severe Disabilities*, 28(4), 205-213.\*
- Grisham-Brown, J. L.** (2000). Transdisciplinary activity-based assessment for young children with multiple disabilities: A program planning approach. *Young Exceptional Children*, 3, 3-10.

Non-refereed Publications

- Pretti-Fronczak, K., McKeen, L., **Grisham-Brown, J.** Horn, E., Matthews, D., Leiber, J., Sullivan, L. (2007). *Curriculum*. In Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation. Missoula, MT: Division for Early Childhood.
- Baker, S. & **Grisham-Brown, J. L.** (1997). Transdisciplinary activity-based assessment for students with deafblindness. *Deaf-Blind Perspectives*, 5, 5-7.

Books

- Grisham-Brown, J. L.**, Hemmeter, M. L., & Pretti-Fronczak, K. (2005). *Blended Practices for Teaching Young Children in Inclusive Settings*. Brookes Publishing Co.

Manuscripts Submitted for Publication

- Grisham-Brown, J. L.**, Pretti-Fronczak, K., Hawkins, S., & Winchell, B. (2008). *An examination of how to address early learning standards for all children within blended preschool classrooms*. Manuscript submitted for publication to *Topics in Early Childhood Special Education*. \*Under review
- Hallam, R., **Grisham-Brown, J. L.**, & Pretti-Fronczak, K. (2006). Concurrent Validity of the Battelle Developmental Inventory, Second Edition (BDI-2) and the Assessment, Evaluation, and Programming System, Second Edition (AEPS®): Implications for Accountability. Manuscript submitted for publication to *Topics in Early Childhood Special Education*. Under revision.

Manuscripts/Books in Preparation

- Grisham-Brown, J.**, Pretti-Fronczak, K., Gao, X., & Hawkins, S. *Recommended assessment practices for working with young children with developmental delays: Current information for the entire team*. Manuscript in preparation.

RESEARCH GRANTSEXTERNAL: Federal

Project Increasing the Number, Competence, and Resources of Early Interventionists in Areas of Shortage (co-principal investigator). Office of Special Education Programs Personnel Preparation Grant. 10/1/05 – 9/30/09 (\$800,000).

Description: Personnel preparation grant to support developmental interventionists working in early intervention to achieve initial certification in interdisciplinary early childhood education.

Preparing Tomorrow's Early Childhood Leaders (co-principal investigator. Office of Special Education Program Leadership Grant. 1/1/06 - 12/31/09 (\$800,000).

Description: Leadership grant in collaboration with Kent State University to train leadership personnel with emphasis in four areas: cultural and linguistic diversity; blended early childhood education; natural environments in early intervention; and technology in personnel preparation.

Investigating the Impact of a State-Wide Unified Professional Development System on Quality Environments and Child Outcomes (co-principal investigator). Child Care Bureau Field Initiated Research Grant. 9/1/04 – 8/31/07 (\$1,199,889).

Description: Three-year research grant to determine the impact of Kentucky's early childhood professional development system on early care and education quality, as well as child outcomes.

Project LINK: A Partnership to Promote LINKages among Assessment, Curriculum, and Outcomes in order to Enhance School Success for Children in Head Start Programs (co-principal investigator 02 – 04; principal investigator 04 - 06). Head Start Research Grant. 9/1/02 – 8/31/06 – (\$785,046)

Description: Four-year research project designed to increase the capacity of Head Start staff to link child assessment, curriculum, and outcomes for children based on the Head Start Child Outcomes Framework.

### SCHOLARLY PRESENTATIONS

#### National/International

**Grisham-Brown, J.,** Brookshire, R., & Hallam, R. "An Authentic Assessment and Curriculum Model: Using Project LINK Strategies to Create Meaningful Goals for Preschoolers." Presentation for National Association for the Education of Young Children National Conference, Chicago, IL, November, 2007.

**Grisham-Brown, J.,** Hawkins, S., & Winchell, B. "Implementing a Linked Assessment and Intervention Model: Challenges and Successes." Presentation for The 23<sup>rd</sup> Annual International Conference on Young Children with Special Needs and Their Families, Niagra Falls, Canada, October, 2007.

Hallam, R., **Grisham-Brown, J. L.,** Brookshire, R., Hatfield, B., & Allen, E. "The Impact of an Authentic Assessment Intervention on Lesson Planning in Preschool Classrooms." Poster for American Council on Rural Special Education 26<sup>th</sup> Annual National Conference, Lexington, KY, March, 2006.

Pretti-Frontczak, K., Bricker, D. **Grisham-Brown, J. L.,** & McLean. "Alternative Assessment Approaches to Meeting Accountability Mandates; Issues and Initial Findings." Presentation for Conference on Research Innovations in Early Intervention, San Diego, CA, February, 2006.

Pretti-Frontczak, K, **Grisham-Brown, J. L.,** & Hallam, R. "Supporting Authentic Assessment: Examining the Concurrent Validity of the BDI-2 and the AEPS." Poster for The 21<sup>st</sup> Annual International Conference on Young Children with Special Needs and Their Families, October, 2005.

**Grisham-Brown, J. L.,** Carr, V., & Boat, M. "Child Assessments and Outcomes: Challenges and Lessons from the Head Start Child Outcomes Research Support (CORS) Consortium." Poster for the 40<sup>th</sup> Annual Head Start Association Conference, Orlando, FL, May, 2005.

Hallam, R., **Grisham-Brown, J. L.,** Gao, X., & Brookshire, R. "LINKing Authentic Assessment, Curriculum Planning and Child Outcomes: Effects on Head Start Preschool Classroom Quality." Poster for American Education Research Association Conference, Montreal, Canada, April, 2005.

**Grisham-Brown, J. L.** "Conducting Functional Assessments with Students with Significant Disabilities." Presentation for American Council on Rural Special Education 23<sup>rd</sup> Annual National Conference, Salt Lake City, Utah, March, 2003.

**Grisham-Brown, J. L.** "Teacher-Friendly, Play-based Assessments." Presentation for National Association for the Education of Young Children Conference, New York, NY, November, 2002.

Baker, S. & **Grisham-Brown, J. L.** "Transdisciplinary Activity-based Assessment." Presentation for National Conference on DeafBlindness, Washington, D.C., June, 1997.

**Grisham-Brown, J. L.** “To Dream the Impossible Dream”, Keynote for 9th Annual Statewide Conference on Deaf Blindness and Multiple Disabilities, Austin, Texas, February, 1994.

### State

**Grisham-Brown, J.** & Hawkins, S. “Making the Connection: Writing High Quality IEPs that Link to the Kentucky Early Learning Standards.” Presentation for 21<sup>st</sup> Annual Kentucky Early Childhood Summer Institute, Louisville, KY, June, 2007.

**Grisham-Brown, J.** “Practical Strategies for Using AEPS in the Classroom and Online.” Presentation for 21<sup>st</sup> Annual Kentucky Early Childhood Summer Institute, Louisville, KY, June, 2007.

**Grisham-Brown, J. L.,** Kaylor, C., Small, R., & Quire, K. “Surviving Tales from the Front: Using the AEPS”. Presentation for 20<sup>th</sup> Annual Early Childhood Summer Institute, Lexington, KY, June, 2006.

**Grisham-Brown, J. L.,** Brookeshire, R., Hawkins, S., Litt, C., & Nielson, A. “Linking Assessment to Kentucky Early Learning and head Start Standards.” Presentation for 19<sup>th</sup> Annual Early Childhood Summer Institute, Louisville, KY, June, 2005.

**Grisham-Brown, J. L.** “Conducting Authentic Assessments for Young Children with Disabilities.” Presentation for 2004 Infant-Toddler Institute, Owensboro, KY, August, 2004.

### Invited Presentations

#### National

**Grisham-Brown, J. L.** “*Designing a Curriculum Framework for ALL Children.*” Presentation for The Eighth National Early Childhood Inclusion Institute, Chapel Hill, NC, July, 2008.

Pretti-Frontczak, K., & **Grisham-Brown, J. L.** “*Assessment, Evaluation, and Programming System.*” Presentation for South Carolina Department of Education, July, 2008.

**Grisham-Brown, J.** “Designing Transdisciplinary Assessments Using the AEPS: Overview and Practices.” Presentation for Olathe Summer Conference, Olathe School District, Olathe, KS, May, 2007.

**Grisham-Brown, J.** “Meeting the Demands of Accountability through an Authentic Assessment: Pilot Data on the *Assessment, Evaluation, Programming System.*” Presentation for Masters Seminar at Vanderbilt University, Nashville, February, 2007.

**Grisham-Brown, J. L.,** Thomas, C. J., & Costa, C. “How to Conduct an Assessment on Multiple Children” Webinar for Brookes Publishing Company, November, 2006.

**Grisham-Brown, J. L.** & Hawkins, S. “Using the *Assessment, Evaluation, and Programming System* for Accountability” Presentations for New Hampshire Department of Education, Bedford and Lincoln, New Hampshire, October, 2006.

**Grisham-Brown, J. L.** “Linking Assessment and Instruction to the Head Start Outcomes Framework.” Presentation for the Ohio Head Start Association Education Institute. Columbus, OH, September, 2006.

**Grisham-Brown, J. L.** “Involving Families in the Assessment Process.” Presentation for New England Center on Deafblindness, Hartford, CT, November, 2005.

**Grisham-Brown, J. L.** “Assessment is Not a Test.” Pre-Conference session for Arizona Department of Education Early Childhood Education 1<sup>st</sup> Annual Early Learning Conference. Carefree, AZ, June, 2005.

**Grisham-Brown, J. L.** “Conducting Assessments for Purposes of Developing High Quality Intervention Plans.” Presentation for Summer Institute course for University of New Orleans. New Orleans, LA, June, 2005.

Pretti-Frontczak, K. & **Grisham-Brown, J. L.** “Aligning Standards with Authentic Assessment Practices.” Pre-Conference Session for The 20<sup>th</sup> Annual International Conference on Young Children with Special Needs and Their Families. Chicago, IL, December, 2004.

**Grisham-Brown, J. L.,** Garrett, B., Norman, J., & Russo, J. “Including Students with Deaf-Blindness in Large-Scale Assessment Systems.” Keynote address for 2003 Project Director’s Meeting Projects for Children and Young Adults who are Deaf-Blind, Washington, D. C., October, 2003.

**Grisham-Brown, J. L.** “It Can Be a Crystal Ball: Using Assessment Information to Plan Curriculum.” Audio-Conference for 170 Head Start Providers for Head Start Region VII Disability Services Quality Improvement Center, March, 2002.

**Grisham-Brown, J. L.** “Authentic Assessment in Early Childhood Settings: Parent-Professional Partnerships.” Pre-Conference Session for Annual DEC International Early Childhood Conference on Young Children with Special Needs and Their Families, Boston, MA, December, 2001.

**Grisham-Brown, J. L.** “Assessment Strategies for Children who are Deaf-Blind.” Presentation for Arkansas Deaf-Blind Project, Hot Springs, AR, October, 2001.

**Grisham-Brown, J. L.** “Linking Assessment to Curriculum.” Presentation for Region VIII Head Start Conference, Sioux Falls, SD, October, 2001.

**Grisham-Brown, J. L.** “Program Planning Assessment for Young Children.” Workshop for Florida Department of Health Children’s Medical Services. Tampa, FL, May, 2000.

**State**

**Grisham-Brown, J. L.,** “Assessment/Connection with Preschool Standards” and “Ongoing Monitoring”. Presentations for Child Development Center of the Bluegrass, Lexington, KY, December, 2003.

**Grisham-Brown, J. L.,** “Conducting Assessments within Natural Environments for Infants and Toddlers with Disabilities.” Presentation for 10<sup>th</sup> Annual Infant/Toddler Conference, Louisville, KY, October, 2002.

**Grisham-Brown, J. L.** “Transdisciplinary, Activity Based Assessment”, Inservice for PREVIEW assessment team, Kentucky School for the Blind, Louisville, KY., June, 1992.

**PROFESSIONAL ORGANIZATION PARTICIPATION**

National Association of the Education of Young Children  
Council for Exceptional Children  
Division of Early Childhood  
Division of Teacher Education  
American Council on Rural Special Education

Table 3

Alignment of Proposed Study with IES RFA

Early Learning Programs and Policies	Proposal	Proposal	Exploration Topic
<p>“The Institute intends to contribute to improvement of school readiness skills of prekindergarten children”</p>	<p>This study will focus on the extent to which data collection behaviors improve young childrens’ school readiness skills.</p>	<p>This study will focus on (a) exploration of the association between education outcomes and malleable factors.</p>	<p>“The Institute is interested in the (a) exploration of the association between education outcomes and malleable factors and (b) examination of factors and conditions that may mediate or moderate the relations between malleable factors and education outcomes.”</p>
<p>[through] “exploring malleable factors<sup>9</sup> (e.g., children’s skills, instructional practices, policies) that are associated with better child outcomes, as well as mediators and moderators of the relations between these factors and child outcomes, for the purpose of identifying potential targets of intervention”</p>	<p>Malleable factors are those that can be controlled (such as teacher data collection). The study will explore the extent to which this malleable factor is associated with improved student outcomes. Further, the study will be used as a precursor or foundation for future research that will identify those potential targets of intervention across tiers.</p>	<p>Teacher data collection- a teacher practice- can be a part of educational/school practices and can indeed fall under control of the education system if evidence (improved student outcomes) is provided that changes should be made to provide the PD to collect data in this manner.</p>	<p>“By malleable factors, the Institute means factors that can be changed such as children’s behaviors, teachers’ practices, education programs, school or district management practices, or education policies. The Institute is interested in those malleable factors that are under the control of the education system.”</p>
<p>“The long-term outcome of this program will be an array of tools and strategies (e.g., assessments, instructional approaches, programs, and policies) that have been documented to be effective for improving school readiness skills for prekindergarten (three- to five-year-old) children in center-based prekindergarten settings.”</p>	<p>This study will contribute to the development of approaches, programs, and policies that are within the districts’ control.</p>	<p>This study explores the underlying process of data collection as it relates to improving or inhibiting student school readiness outcomes. By comparing to control groups, we will be able to examine which method(s) of data collection- if any- are enhancing or inhibiting student outcomes. Further, results from the study are intended to be used for a subsequent development and innovation project.</p>	<p>“One purpose of Exploration projects is to explore the underlying processes that may be operating to enhance or inhibit learning outcomes. To the extent that such processes are malleable, information about the underlying processes gained from Exploration projects could be used to inform the development of interventions in a subsequent Development and Innovation project.</p>

(table continues)

Table 3 (continued)

*Alignment of Proposed Study with IES RFA*

Early Learning Programs and Policies	Proposal	Proposal	Exploration Topic
<p>“About one third of these [funded] projects are focused on developing interventions designed to support children’s school readiness skills and <i>the professional development of early childhood educators</i>.”</p>	<p>The proposed study will provide results (evidence) as to whether teacher data collection behavior is an important factor that should be included in future studies, practices, and/or policies as a PD component designed to support children’s school readiness.</p>	<p>This study will use an experimental design in that existing, in-tact classrooms will be used and randomly placed into either the control or experimental groups. Schools across two states that represent typical demographics of at-risk youth will be asked of their interest to participate, and then 150 total (50 for each condition) will be randomly placed into conditions. Thus, original data collection will occur, and an ANOVA as well as paired t-tests will be used to analyze results.</p>	<p>A variety of methodological approaches are appropriate under the Exploration goal including, but not limited to, original data collection with appropriate statistical analyses and secondary data analyses of existing data sets.</p>
<p>“Unlike our other program areas, the Institute has supported more efficacy and scale-up evaluation projects of early childhood curricula (28) than projects focused on developing new early childhood interventions.”</p>	<p>The proposal does not seek to develop a new EC intervention, but rather to explore the relationship between teacher data collection behavior and student school-readiness outcomes.</p>	<p>This study is intended to generate hypotheses as to the relationship between frequency of data collection and students’ educational outcomes (i.e., kindergarten readiness). That said, a hypothesis will not be explicated in the study (although research not related to teacher data collection behaviors and student outcomes does seem to suggest a positive correlation).</p> <p>This study WILL NOT test specific educational interventions, examine non-malleable factors or malleable factors that are not under the foreseeable control of the educational system, or draw conclusions related to the efficacy of any interventions.</p>	<p>“In general, Exploration projects are intended to generate hypotheses regarding the causal relations between malleable factors and education outcomes and to contribute to theories of change for education interventions. In contrast, the purpose of Efficacy and Replication and Scale-up Evaluation projects, as described below, is to test causal hypotheses about the effects of fully developed interventions on education outcomes. Applicants interested in, for example, secondary data analyses to determine the effect of an intervention (e.g., policy, program, practice) on education outcomes should apply to the Efficacy and Replication goal.”</p>

*(table continues)*

Table 3

*Alignment of Proposed Study with IES RFA*

Early Learning Programs and Policies	Proposal	N/A	Exploration Topic
<p>“The Institute continues to solicit research on curricula, instructional practices, and <b>teacher professional development</b> intended to improve young children's pre-reading, pre-writing, language and vocabulary, early science and mathematics skills, and socio-emotional competence. Socio-emotional competence covers a broad range of knowledge and skills. The Institute encourages research on those skills that are predictive of later school performance.”</p>	<p>The purpose of the proposed study is to explore the relationship between frequency of data collection and student outcomes. The study provides substantial potential for possible teacher professional development evidence (i.e., data collection behavior) as a means of improving student outcomes.</p>	N/A	N/A
<p>Research must focus on prekindergarten children (ages 3 to 5).</p>	It does	N/A	N/A
<p>All applicants must include measures of children's school readiness outcomes</p>	<p>The revised AEPS and the SSIS will be used to measure student outcomes</p>	N/A	N/A
<p>The Institute is primarily interested in early childhood interventions – programs, practices, and policies – intended to improve school readiness for children who are at-risk for later school failure. The focus of the Early Learning program is on center-based programs and policies for prekindergarten children (three- to five-years old).</p>	<p>While not a student intervention, the research focus is more or less on exploring the factor of teacher data collection behavior as it relates to student outcomes. The results will have implications for future practices, policies, and professional development activities.</p>	N/A	N/A

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