Project Title and Summary

Title:
The T.R.U.E. Initiative: Creating Character and Citizenship in Young Children

Background and Purpose:

A. The T.R.U.E. Initiative (Telling, Reinforcing, Understanding and Engaging): Creating Character and Citizenship in Young Children is a collaborative effort with community agency partners and local (Saginaw County) school districts where nine character traits have been embedded into student learning. This was accomplished by using the *Peddlesfoots* character education curriculum, providing staff development for participating teachers, and parent education through informational meetings. The project included the implementation and evaluation of the *Peddlesfoots* character education curriculum. *Peddlesfoots* was developed by local early childhood educators to promote nine character traits: trustworthiness, respect, responsibility, fairness, citizenship, caring, determination, courage and self-discipline. These nine character traits support the Michigan State Board of Education's "Policy on Quality Character Education" and are aligned with Michigan standards and benchmarks for social studies and English. In addition, these character traits were based on Thomas Lickona's work regarding the Eleven Principles of Effective Character Education. Early childhood educators, administrators and parents were provided curriculum kits and training to reinforce the nine traits, moral decision-making and positive conduct. The T.R.U.E. Initiative focuses on providing professional development, instruction and character-building activities to positively impact families and young children, including children with disabilities. The project served 13 school districts and families who had pre-schoolers, kindergartners, and first graders within Saginaw County. Year one involved the development of the study. Year two of this study involved research regarding kindergartners, year three, first graders, and year four, pre-schoolers.

B. The purpose of this study was to examine the effects of a character education program using the *Peddlesfoots* curriculum on the behavior of young children, the academic success of young children, and the content and pedagogical knowledge of teachers, administrators and parents. The following questions were presented in the original grant application evaluation design.

- What effect does a yearlong character education curriculum, the *Peddlesfoots*, have on the behaviors of selected Pre-schoolers, kindergartners, and first graders?
- What effect does a yearlong character education curriculum, the *Peddlesfoots*, have on the academic/literacy performance for Pre-schoolers, kindergartners, and first graders?
- To what extent is the *Peddlesfoots* curriculum implemented as intended, and to what extent are differences in implementation associated with program outcomes?

In addition, the following data were collected:

- Number of children who are impacted by the *Peddlesfoots* curriculum.
- Number of participating programs by grade level.
- Number of participating teachers, administrators, and other school staff.
- Number of parent kits disseminated.

- Number of participants who attend training.
- Number of children who are impacted by the *Peddlesfoots* curriculum.

In addition, the data were collected from teachers, parents, administrators, support staff, and students. Table 1 gives the sample sizes for each year. The first number is the treatment group sample size and the second is the cohort or control group sample size.

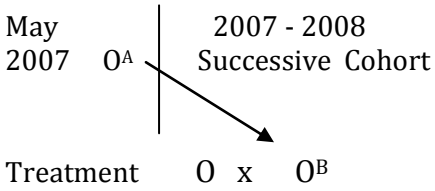
Table 1. Sample Sizes of Respondents for the Three Years of the Study.

	Teachers	Parents	Administrators	Student	Support Staff
Year 1 –Kindergarten*	52/24	647/196	14/9	554/152	19/10
Year 2 - First Grade*	46/33	547/173	11/11	487/145	19/16
Year 3 - Pre-K	30/13	446/123	10/2	450/197	35/5

Evaluation design:

The following design was used for the first two years of the implementation of the project. The changes in the design for the last year of implementation are included below.

Research Design:



A quasi-experimental design with a matched comparison group (successive cohort) was used. The match was based on grade span, student demographics and student achievement profile. Evaluators administered a post survey to kindergarten teachers, administrators, support staff, parents and children prior at the end of the 2007 school year to establish a successive cohort control group. Teachers, administrators, and support staff continued with the treatment group for the following year. Children and parents did not continue as part of the treatment group. Procedures included both quantitative & qualitative data gathering. During the 2007-2008 school year, all instruments were administered to the treatment groups just prior to (September), during, and at the conclusion (May) of implementation of the *Peddlesfoots* curriculum. This same design was used for the 2008-2009 school year with first grade participants.

<u>New Design for the last year of the project (2009-2010):</u>

An aspect that appeared to compromise the intervention's effects (or lack thereof) included the successive cohort research design. The successive cohort model was recommended by the federal government's technical assistance team and was chosen to avoid the ethical dilemma of withholding the curriculum from students in Saginaw County. Saginaw County has high infant mortality, high poverty, unemployment, and many other problems that have a direct relationship

with student learning and behavior. Thus, even though the difficulties of this model were recognized, the TRUE Initiative felt it was imperative to allow anyone interested to participate. Discussion for an experimental design in Year Four occurred. We had the ability to allow control group participants in Year Four an opportunity to be exposed to the curriculum during the 2010-2011 school year, one year after the grant is completed. This would ameliorate the ethical dilemma that we originally faced. The TRUE Board requested that the evaluation be changed in its design to a treatment/control group. Thus, the design of the project from a successive cohort model to an experimental design model occurred. The total population of potential participants (approximately 70) was divided into two samples (non-equivalent assignment); the control sample, and the experimental sample. Only the experimental sample was exposed to the *Peddlesfoots* Curriculum during the implementation of this research project. Teachers in the control group received training at the end of the project (June 2010) so that they will be able to implement the curriculum appropriately in their classrooms during the 2010=2011 school year.

Teachers in the control group were provided stipends at the same rate as teachers in the experimental group. Surveys and checklists were the same for both groups.

C. Attached is the Government Performance and Results Act (GPRA) indicator form (Appendix A).

D. The outcome measures used to determine the success of the project included student discipline issues, student academic achievement, staff morale, parental and community involvement, faculty and administration involvement, and school climate improvement.

Methods:

A. The study was conducted between September 2007 and May 2010. There were a total of 78 participating schools from13 districts in the Saginaw Intermediate School District (SISD) and private schools involved in the study, both in the cohort/control groups and the treatment groups. Table 2 shows the total numbers of participants involved in the intervention for the three years of the study. The numbers in this table indicate all participants involved with the *Peddlesfoots* curriculum, based on the numbers of teacher training, teacher kits distributed, and parent kits distributed. The schools that participated are listed in Table 2. The shaded schools also participated in the May 2007 cohort group.

Table 2. Number of People Impacted by the *Peddlesfoots* Curriculum for the three years of the study.

	Teachers	Parents	Administrators	Students	Support Staff	Schools	
						Public	Private
Year 1 – Kindergarten*	66	837	29		58	26	3
Year 2 - First Grade*	51	669	21		42	17	4
Year 3 - Pre-K	51	867	28		56	24	4
Total	168	2,373	78		156	67	11

*All children in participating classrooms received the intervention; however, not all children's data were analyzed due to lack of parent permission to include his/her child's data in the study.

B. The percentage of students who have been identified as special needs for Saginaw County is 16.96%. For the city of Saginaw, the percentage is 18.44% for all grades. Twenty percent of students who have been identified as special needs are SLI. Sixty-five percent of students identified as special needs are either SLI or EI.

The student ethnicity breakdown is reported in Table 3. The shaded schools participated for the first time in 2008-2009. The data were extracted from http://www.schoolmatters.com/schools.

C During 2009-2010, an experimental design was used; therefore, data were collected for both treatment and control groups. Permission through IRB for "Exemption to presumption of documented consent, "was received, thus all surveys completed by children and turned into the project were analyzed.

Table 3. School Ethnic Breakdown – Cohort and Intervention Groups.

	American Indian/ Alaskan Native	Asian/Pacific Islander	Black	Hispanic	White	Multi-Racial
Schools 2007-08 and 2008-09						
Albee		1.8	1.8	5.9	90.5	
Atkins		1.8	31.0	16.0	52.0	
Bethlehem Lutheran			3.0	4.0	93.0	
Big Rock		1.6	0.5	9.7	88.1	
Brady	0.5		1.0	4.6	93.3	0.5
Carrollton	1.5	14.6	22.8	6.9	54.2	
Francis Reh	1.8		83.2	4.0	3.6	8.4
Freeland	0.4	0.7	1.3	1.3	95.5	0.7
Growing Years*						
Havens	0.3	0.6	2.9	7.9	87.6	0.6
Heavenrich	<1.0		96.0	3.0	<1.0	
Hemmeter	0.3	11.4	5.5	1.8	77.6	3.5
Henry Doerr		1.5	94.1	2.2	2.2	
Houghton			86.3	9.5	4.2	
Jerome	0.4	0.4	44.9	26.9	27.6	

Jessie Rouse			63.0	32.0	4.0	1.0
List	0.3	0.3	0.3	1.1	97.7	0.3
Merrill	1.1		35.6	25.5	37.8	
North	1.2	0.3	0.9	4.1	93.5	
Plainfield	1.0	4.3	14.8	5.6	68.5	5.0
Sherwood	0.2	2.8	12.6	8.7	73.2	2.6
Shields	0.2	0.7	1.4	4.2	93.0	0.5
St. Charles	1.0	0.8	1.1	5.1	92.0	
St. Helen			11.0	17.0	72.0	
St. Peter & Paul*	6.0	2.0	7.0	19.0	67.0	
St. Thomas		4.0		2.0	93.0	
Thomas White			33.6	15.1	51.3	
Webber		0.4	87.1	6.2	6.2	
Weiss	0.3	0.6	6.5	17.4	74.5	0.6
Westdale	1.3	2.9	11.7	11.7	63.3	9.2
Pre-K Programs 2009-2010						
Arrowood *		3.0	7.0	5.0	83.0	2.0
Birch Run Co-op Preschool *						
Birch Run Headstart *						
Brucker Headstart *						
Carrollton Child Care Center *						
Claytor *						
Crossing *						
Gratiot Headstart *						
Hemlock Preschool *						
Junior Achievement Headstart *						
Longfellow Headstart *			95.0	5.0	<1.0	
Merrill Park *	<1.0		42.0	24.0	34.0	
Peace Lutheran Headstart *	<1/0	2.0	<1.0	5.0	92.0	
Saginaw Career Complex Headstart *						
Swan Valley GSRP *						
Valley Headstart *						

* School data not found.

a. The cohort group had 24 teachers and the intervention group included 54 teachers. The cohort group had 196 parents and the intervention group had 646 parents. Nine principals and 10 support staff members responded to the cohort group surveys. Fourteen principals and 19 support staff members responded to the intervention group surveys.
b. The samples were recruited by the TRUE Initiative staff. A letter describing the program was sent to all teachers. Teachers were asked to be in the intervention group. These teachers were asked to participate in the successive cohort group.

C. Pre/post surveys for participating students (young children), teachers, administrators, other school support staff and parents who provided informed consent were administered during designated times reported in the time line section. Surveys for children were administered by kindergarten teachers. Surveys for teachers, parents, other school staff and administrators were conducted by the evaluator and/or T.R.U.E. Team members.

Participating teachers were requested to do the following: fill out documentation regarding implementation of the T.R.U.E. Initiative three times during the implementation of the *Peddlesfoots* curriculum, complete teacher pre/post surveys, pre/post school culture scales, pre/post literacy learning outcomes/checklists for each child in their classroom and administer the elementary survey to participants. In addition, participating teachers were requested to attend a one day staff development training -prior to implementation regarding how to use the *Peddlesfoots* curriculum and participated in individual follow-up interviews (April/May). In the last year of the project, teachers provided pre/post data regarding behavior through a behavioral checklist.

To develop a successive cohort control group, teachers who agreed to participate in the cohort groups were requested to fill out a post teacher survey, post school culture scale, post literacy learning outcomes for each child in their classroom, and administer the elementary survey to all of their children in May 2007 and 2008. These particular groups of children were not part of any future treatment groups. The teacher groups were not the same due to a few teacher changes at the beginning of the school year and the addition of some teachers wanting to participate in the treatment group. Not all teachers in the treatment group participated in the successive cohort control group as originally designed.

Data from the literacy checklists and elementary surveys were analyzed only on children who had a consent form on file for 2007-2008 and 2008-2009. In 2009-2010 an experimental design was used. Treatment and control groups were established and provided data from September 2009 to May 2010.

Participating administrators were requested to do the following: fill out pre/post school culture scale, complete a principal survey and fact sheet. In addition principals were requested to attend community focus groups when applicable.

To develop a successive cohort control group, principals who agreed to participate during the treatment year were requested to complete a post school culture scale and post principal survey and fact sheet (May 2007 and May 2008). Due to a few principal changes, new principals filled out pre and post data during the treatment phase.

In 2009-2010, directors of early childhood programs and or principles were requested to fill out the pre/post school culture scale and complete a principal survey and fact sheet. Experimental and control groups did this in the fall and spring.

Participating parents in the treatment group were requested to do the following: fill out pre/post parent questionnaire, attend an informational meeting prior to receiving a *Peddlesfoots* Parent Kit, and provide consent (2007-2008 and 2008-2009) for their child to participate in the T.R.U.E. initiative. In 2009-2010, parents did not have to provide consent for their children's data to be analyzed due to the "Exemption to presumption of documented consent, "

To develop a successive cohort control group, two sets of parents were requested to complete a post parent questionnaire (spring 07 and 08). These parents and their children did not participate in the treatment group.

Participating children in the treatment group were requested to do the following: complete a pre/post elementary school survey administered by their classroom teacher.

To develop successive cohort control groups, children who just had completed either kindergarten or first grade during the 2006-2007 or 2008-2009 school year were requested to complete a post elementary school survey given by their classroom teacher. Since the last year of the project involved pre-school children using an experimental design, all treatment and control group children completed pre/post surveys during the 2009-2010 school year. Surveys were administered by the children's classroom teachers.

School support staff School support staff (2 per participating school/program) were requested to do the following during the treatment year: fill out pre/post school culture scale and a pre/post support staff survey.

To develop successive cohort control groups, school support staff were requested to fill out a post school culture scale and a post staff survey in spring 2008 and 2009. Some of these participants participated during the following treatment year.

During the 2009-2010 year, control group staff were requested to complete pre/post surveys.

Survey instruments included: Principal Survey and fact sheet(minor changes in instrument each year), Support Staff Survey (minor changes in 2008), Elementary School Survey(changes in 2008 to demonstrate better alignment with the nine specific character traits used in the curriculum; changes in 2009 to include more appropriate vocabulary for pre-schoolers) , Parent Questionnaire/Survey (changes in survey to include parental implementation questions 2008), Teacher Survey (minor changes in 2008), School Culture Scale (integrated into the surveys rather than having a separate survey(2008 and 2009), Learning and Outcomes Selected Indicators for Literacy (2007-2008), Literacy Outcomes aligned with Michigan Reading Benchmarks(2008-2009), Literacy Outcomes Checklist for Pre-K aligned with Michigan Early Childhood Content Standards and the Creative Curriculum and a Teacher Implementation Log (minor changes in 2008 and 2009). A Behavior rating scale was developed to be used for pre-schoolers in 2009-2010, This scale was aligned with the Michigan Early Childhood Content Standards and the Creative Curriculum. Ratings of "not yet, sometimes, and consistently," were used to demonstrate whether or not a pre-schooler demonstrated the character traits used in the curriculum.

Time Line for the Implementation of the T.R.U.E. Initiative (*Peddlesfoots* Curriculum)

2006-2007 Planning Year: Presentations regarding Character Education and the *Peddlesfoots* curriculum were given to school districts, community members, and parents. Participants were selected on a voluntary basis from districts that wished to participate and implement the *Peddlesfoots* curriculum in their kindergarten classrooms during the 2007-2008 school year.

The *Peddlesfoots* curriculum for kindergarten was updated to include "Cultures of Thinking" concepts from Harvard Project Zero training. This training was attended by T.R.U.E. team members. Items were added to the surveys for the first grade group (2008-2009) to reflect the addition of these concepts.

Administration of post surveys to teachers and administrators who intended to implement the *Peddlesfoots* curriculum in the year 2007-2008 was completed in May of 2007. This process established a successive cohort control group. No significant events happened during the 2007-2008 school year, thus, there appeared to be not threat of validity to the design.

2007-2008 Implementation Year #1:

May

- Post-surveys administered to successive cohort group.

August/September

- Teachers in treatment group attended a professional development day regarding how to use the curriculum, surveys, and research information. Teachers were given three days to select their preferred day of training. Curriculum materials were disseminated during this professional development day.
- Materials were disseminated to participating parents of kindergartners (treatment group) at informational meetings held at individual schools.
- Pre-surveys for participating administrators, teachers, parents, and school staff were completed (treatment group).

August/September-May

- Full implementation of the *Peddlesfoots* curriculum in participating kindergarten classrooms occurred (treatment group).

November/February/May

- Documentation regarding implementation by participating kindergarten teachers were completed (treatment group).

April/May

- Post survey administration to successive cohort group for year three (first grade) occurred.
- Post surveys for participating teachers, administrators, kindergartners, parents, and school staff were completed (treatment group).
- First grade *Peddlesfoots* Curriculum was developed. Curricular suggestions were provided by kindergarten teachers during the school year.

2008-2009: Implementation Year #2:

May

- Post survey administration to successive cohort group for first grade occurred.

August/September

- Dissemination of materials and staff development for first grade teachers who volunteered to implement the *Peddlesfoots* curriculum occurred on August 19th and 20th.
- Materials were disseminated to participating parents of first graders (treatment group)
- Informational meetings for implementing parent packets were held at individual schools (treatment group).
- Pre-surveys for participating administrators, teachers, parents, and children were completed (treatment group).

September-May

- Full implementation of the *Peddlesfoots* curriculum in participating first grade classrooms occurred (treatment group).

April/May

- Post-surveys for participating administrators, teachers, parents, and children were completed (treatment group)

November/February/May

- Documentation regarding implementation by participating first grade teachers were completed (treatment group).

The Pre-K *Peddlesfoots* curriculum and corresponding parent kits were developed.

Surveys for teachers, parents, principals, and school personnel were revised following review of the documentation provided by first grade teachers.

Major revisions were made to the children's elementary survey and literacy checklist in an effort to be more appropriate for preschoolers. Checklists were aligned with the Michigan Content Standards for Early Childhood and the Creative Curriculum. A behavior rating scale was developed to support the nine character traits covered in the *Peddlesfoots* curriculum.

2009-2010: Implementation Year #3:

August/September

- Dissemination of curriculum materials and staff development for Pre-school grade teachers who volunteered to implement the *Peddlesfoots* curriculum occurred in August (treatment group).
- Informational meeting was held for teachers involved in the control group in August.
- Materials were disseminated to participating parents of Pre-schoolers(treatment group).
- Informational meetings for implementing parent packets were held at individual programs.
- Pre-surveys for participating administrators, teachers, parents, support staff, and children were completed (treatment group and control group).

September-May

- Full implementation of the *Peddlesfoots* curriculum in participating first grade classrooms occurred (treatment group).

April/May

- Post-surveys for participating administrators, teachers, parents, school staff, and children were completed (treatment group and control group)

November/February/May

- Documentation regarding implementation by participating first grade teachers was completed (treatment group).

E. Table 4 is a list of instruments used, participants, purpose, and dates administered.

Table 4. Data Collection Schedule for Three Years of the Study

Instrument	Respondent	Outcomes	2007-08	2008-09	2009-10
Literacy Checklist	Teachers	Student Literacy	**Cohort** May 2007 **Intervention**	**Cohort** May 2008 **Intervention**	**Control** Oct 2009 April 2010

			Sept 2007 May 2008	Sept 2008 May 2009	**Treatment** Oct 2009 April 2010
	Parents	Student behavior Parent–school relationship Parental involvement	**Cohort** May 2007 **Intervention** Sept 2007 April 2008	**Cohort** May 2008 **Intervention** Sept 2008 April 2009	**Control** Aug 2009 April 2010 **Treatment** Aug 2009 April 2010
Behavior Rating Scale	Teachers	Student Behavior	**N/A**	**N/A**	**Control** Oct 2009 April 2010 **Treatment** Oct 2009 April 2010
Student Questionnaire	Students	Student behavior	**Cohort** May 2007 **Intervention** Oct 2007 April 2008	**Cohort** May 2008 **Intervention** Oct 2008 April 2009	**Control** Aug 2009 April 2010 **Treatment** Aug 2009 April 2010
Teacher Questionnaire	Teachers	Student behavior Curriculum School climate	**Cohort** May 2007 **Intervention** Aug 2007 April 2008	**Cohort** May 2008 **Intervention** Aug 2008 April 2009	**Control** Aug 2009 April 2010 **Treatment** Aug 2009 April 2010
Support Staff Questionnaire	Support Staff	Student behavior School climate Staff morale	**Cohort** May 2007 **Intervention** Sept 2007 April 2008	**Cohort** May 2008 **Intervention** Sept 2008 April 2009	**Control** Aug 2009 April 2010 **Treatment** Aug 2009 April 2010
Principal Questionnaire	Principals	Student behavior School climate School demographics	**Cohort** May 2007 **Intervention** Sept 2007 April 2008	**Cohort** May 2008 **Intervention** Sept 2008 April 2009	**Control** Aug 2009 April 2010 **Treatment** Aug 2009 April 2010
Implementation Log	Teachers	Monitor implementation of curriculum and use of materials and approaches	**Intervention** Nov 2007 Feb 2008 April 2008	**Intervention** Nov 2008 Feb 2009 April 2009	**Control &** **Treatment** Nov 2009 Feb 2010 April 2010
Community	Community	Community	December	**N/A**	**N/A**

Partners Survey	Partners	Participation	2007		

Questionnaires

For the initial cohort group and pre-test intervention group, the instruments used were ones suggested at the technical assistance meeting held in South Carolina. Most of the validated surveys were provided by Ann Higgins-D Alessandro from the Syracuse School District Partnership in Character Education Program. Minor revisions were made to the forms to meet the needs of the Saginaw Intermediate School District's T.R.U.E. Initiative.

After the cohort and September (2007) intervention group questionnaires were completed and analyzed, factor analyses were conducted. There were many duplicate items on the questionnaires. Further, many of the items had high factor loadings on more than one factor, raising concerns that the items were being interpreted by the respondents in different ways or that the items were assessing more than one concept. In December, 2007, all of the items from the five questionnaires (duplicates excluded) were put into a form. A checkbox for each of the nine character traits were positioned to the right of the item. The form was given to each member of the program staff. They were asked to check the trait(s) that was/were addressed by each item. The results were compiled for each item. The evaluation team met with the program coordinator and spent several hours going over each questionnaire item by item.

It was decided that the questionnaires for the posttest administration had to have the same questions as the pretest questionnaires for purposes of comparison. The posttest surveys were basically the same as the pretest and cohort surveys, except that duplicate items were omitted. The School Culture Scale was added to original surveys to make it easier for groups to complete. Instead of completing two separate surveys, one survey contained school culture information.

The questionnaires were then revised for Year 2, taking into consideration the results of the evaluation of the items by the program staff. Each item was then evaluated for content, clarity, focus, and language. Many items were rewritten. Then the questionnaire was evaluated for the nine character traits represented in the *Peddlesfoots* Curriculum. This entailed major revisions in the original surveys to reflect the 9 character traits in the *Peddlesfoots* curriculum and concepts taken from "Cultures of Thinking," Harvard's Project Zero program. Several traits were missing, and at least two items were drafted for each missing trait. Items were also evaluated for information needs. Items that were considered inappropriate for early elementary were removed. Some items were eliminated because there was not a need for the information. The original questionnaires were very long and every attempt was made to make the questionnaires as parsimonious as possible, while providing needed information. The format of the questionnaires was also considered, and a simpler and more visually appealing layout was selected. The questionnaires were then reviewed by other staff content experts for additional revisions. The revised questionnaires were used for the May 2008 first grade cohort group.

During year three major revisions were made to the children's elementary survey and literacy checklist in an effort to be more age appropriate for preschoolers. Behavior and Literacy

checklists were aligned with the Michigan Content Standards for Early Childhood and the Creative Curriculum. A behavior rating scale was developed to support the nine character traits covered in the *Peddlesfoots* curriculum along with a guide describing what type of behavior constituted that particular behavior trait.

The reliability of the posttest questionnaires was assessed using Cronbach's alpha, a measure of internal consistency. For each of the questionnaires, all items related to perceptions of student behavior were used to assess internal consistency. If items were not coded in the same direction, some were recoded so that a 1 represented a negative rating and a 5 represented a positive rating. The results are presented in Table 5. All but three of the internal consistency coefficients are .80 or above for the student, parent, and teacher questionnaires, which is considered very good. The coefficient of internal consistency for principal and support staff items are somewhat lower than those for the other questionnaires, and this could be a result of the smaller number of items and smaller sample size.

Table 5. Cronbach's Alpha for the Five Posttest Questionnaires.

Questionnaire	Items Analyzed	N	Cronbach's Alpha
2007-2008			
Students	19	421	.83
Parents	12	297	.89
Teachers	23	41	.92
Support Staff	18	9	.75
Principals	10	9	.78
2008-2009			
Students	23	320	.76
Parents	18	191	.90
Teachers	34	24	.95
Support Staff	34	11	.90
Principals	34	9	.90
2009-2010			
Students	19	301	.82
Parents	18	150	.89
Teachers	34	20	.96
Behavior Rating Scale	14	397	.92

Literacy Checklist Year 1:

The kindergarten Literacy Checklist was adapted from the New Mexico Early Learning Outcomes for Literacy 2006. According to the 1998 joint position statement of the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC), young children need developmentally appropriate experiences and teaching to support literacy learning. Outcomes included four areas: development and expansion of **listening skills**; communicates experiences, ideas and feelings through **speaking**; engages in activities that promote the acquisition of emergent **reading skills**; engages in activities that promote the

acquisition of emergent **writing skills**. These literacy outcomes were rated using the following categories: present, emerging, established. Teachers were instructed with respect to rating each kindergartner. After using the checklist with kindergartners, revisions for a first grade literacy checklist were made. The first grade checklist was revised to include grade level content expectations (GLCE) from the Michigan Department of Education. Pre-K instruments were designed to aligned with the Michigan Content Standards for Early Childhood and the Creative Curriculum. A behavior rating scale was developed to support the nine character traits covered in the *Peddlesfoots* curriculum. In addition, teachers were provided information identifying types of behavior exhibited by preschoolers that supported each character trait. It was felt that by providing examples of behavior would assist teachers in identifying specific character traits.

A principal components factor analysis was run with the ten items for all three administrations of the Kindergarten Literacy Checklist with similar results. The items are highly correlated with the lowest factor loading of 0.773 and the highest of 0.869 (post-test). They all loaded onto one factor, which indicates that the items are uni-dimensional, meaning they all measure the same construct, literacy. This supports the validity of the instrument. Factor analysis was not done for the first grade and pre-k literacy checklists due to the alignment with the Michigan Department of Education State Standards for literacy development.

Reliability was analyzed using Cronbach's alpha for internal consistency and Pearson's correlation for the total scores on both the pretest and the posttest. The alpha coefficients for the three years are all over .90. The results are shown in Table 6.

Table 6. Reliability Indicators for the Literacy Checklist.

Questionnaire	Items Analyzed	N	Cronbach's Alpha
2007-2008			
Cohort	10	155	.93
Pretest	10	510	.96
Posttest	10	534	.95
2008-2009			
Cohort	42	525	.984
Pretest	42	405	.977
Posttest	42	298	.971
2009-2010			
Control Pretest	10	147	.953
Control Posttest	10	119	.988
Treatment Pretest	10	372	.938
Treatment Posttest	10	369	.932

$p < .05$

The Implementation Log is a tool for teachers to indicate the amount of time they spend on the curriculum, the frequency of use of the different materials, and the frequency of different approaches. It is for descriptive purposes.

F. The statistical methods used to analyze the outcomes are presented in Table 7.

Table 7. Outcomes and Statistical Methods Used.

Student Effect	Outcome	Statistical Method
Discipline Issues	1. At least 80% of the parents will rate their child's behavior at an average level of 2 (Moderately Well on a scale of 0-4). 2. At least 80% of the teachers will rate their students' behavior at an average level of 3.5 (Often True on a scale of 1-5). 3. Comparison of the cohort (control for Pre-K) groups and the post-test intervention groups. 4. Comparison of the pre-test and post-test intervention (and control for Pre-K) group. 5. Relationship of behavior to higher and lower "doses" of the intervention. (2007-2008 only) 6. Behavior rating scale (Pre-K) only intervention v control	1. Frequencies 2. Frequencies 3. Independent samples t test 4. Paired samples t test. 5. Pearson's correlation Independent samples t test
Academic Achievement	1. At least 80% of students will be rated at an average level of 2.5 or greater on the literacy subscales. The scale is 1=Not Present, 2=Emerging, and 3=Established. 2. Comparison of the cohort (control for Pre-K) group and the post-test intervention group on the four subscales. 3. Comparison of the pre-test and post-test intervention group on the subscales. 4. Literacy by type of school (urban, suburban, rural, non-public) for 2007-2008 only 5. Relationship between literacy and higher and lower "doses" of the intervention (2007-2008 only)	1. Frequencies 2. Independent samples t tests 3. Paired samples t tests. 4. Paired samples t tests. 5. Paired samples t test Pearson's Correlation
Intermediate Student Effects		
Staff Morale	Section of the Support Staff questionnaire relating to their experiences in the school.	Descriptive statistics
Parental and	Parent questionnaire.	Descriptive

Community Involvement	Community partners survey (2007-2008)	statistics Descriptive statistics
Faculty and Administration Involvement	Teacher questionnaire. Teacher interviews. Administrators questionnaire	Descriptive statistics Qualitative analysis. Descriptive statistics
School Climate Improvement	1. Teacher questionnaire. 2. Support staff questionnaire 3. Administrator questionnaire	1. Descriptive statistics 2. Descriptive statistics 3. Descriptive statistics
Reliability and Validity	1. Reliability a. Internal consistency b. Test-Retest 2. Validity	1a. Cronbach's alpha 1b. Pearson's correlation a. Factor analysis b. Item analysis by content/method experts

Cohort/control
Year one and two behavior was measured by teachers/parents responses to questionnaires/surveys. In year three of implementation behavior was measured by behavior rating scales completed by teachers. Parents continued to rate behavior by completing their surveys.

Results:

A. The study was successfully carried out as evidenced by analysis of cohort data (2007; 2008), intervention group pre- and post- survey data and control group data (2009-2010), behavior/literacy data, implementation logs, community meetings, teacher interviews, and parent

participation. After reviewing data, implementation questions were included with the 2008-2009 parent questionnaires to provide more evidence of actual parent use.

B. Descriptive data regarding how the intervention was delivered are included in the results of the analysis of the Implementation Logs, as summarized below.

Teachers were asked to estimate the average amount of time spent per week on the *Peddlesfoots Curriculum.* The majority of teachers in all three years estimated that they spent from 0 to 60 minutes a week on curriculum. The number of teachers reporting from one to two hours was the second largest group.

Table 8. Summary of Time Spent on Curriculum

	April 2008		April 2009		February 2010	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0 – 60 minutes	23	63.9	12	57.2	11	61.1
1 – 2 hours	6	16.7	5	23.8	5	27.8
2 - 6 hours	5	13.9	2	9.6	2	11.2
> 6 hours	2	5.6	2	9.5	0	0
Total	36	100.0	21	100.0	18	100

The next six items asked about the use of materials. Table 9 summarizes the results. The categories were consolidated into two categories, Not/Somewhat Used and Used/Highly Used. The most frequently used were books, songs, and the CD. Pre-k teachers reported using the puppets with high frequency. There was some use of Project Zero resources and other character education resources.

Table 9. Summary of Frequencies by Material Used.

	April 2008		April 2009		February 2010	
	Not/ Somewhat Used	Used/ Highly Used	Not/ Somewhat Used	Used/ Highly Used	Not/ Somewhat Used	Used/ Highly Used
Books	1	35	1	20	3	15
Songs	10	26	9	12	4	14
CD	9	27	5	16	4	14
Puppets	18	17	8	13	2	15
Posters	n/a	n/a	n/a	n/a	3	14
Project Zero Resources	28	4	12	9	10	0
Other Character Ed	23	12	9	12	8	4

Question 3 asked teachers what approaches they used to teach Character Education in their classroom during the reporting period. The results for all three years were consistent. Table 10 shows a summary of the nine approaches. The majority of teachers reported that they used or highly used these approaches. The kindergarten teachers were somewhat evenly split on the use of thinking routines, puppets, and role-playing.

Table 10. Summary of Teaching Approaches Used

	April 2008		April 2009		February 2010	
	Not/ Somewhat Used	Used/ Highly Used	Not/ Somewhat Used	Used/ Highly Used	Not/ Somewhat Used	Used/ Highly Used
Books (Literacy)	1	35	1	20	1	17
Songs (Music)	7	29	8	13	3	14
Teachable Moments	4	29	3	18	5	13
Problem-Solving Discussions	6	28	2	19	4	13
Making Learning Visible	13	21	9	12	4	13
Puppets (Drama)	17	18	8	13	4	14
Role-Playing	17	18	9	12	9	8
Thinking Routines	19	16	7	14	6	11
Other		1	1	1	2	

Question 4asked approximately how much time per week would you say you spent in this reporting period building positive classroom climate. This question refers to the entire period. The frequencies for all three reporting periods were fairly evenly distributed, with one to two hours being the most frequent response.

Table 11. Frequencies and Percentages for Time Spent on Classroom Climate for the Final Reporting Period 2007 to 2010.

	April 2008		April 2009		February 2010	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0 - 30 min.	4	11.1	1	4.8	3	18.75
30 - 60 min.	8	22.2	2	9.5	2	12.5

1 - 2 hours	7	19.4	8	38.1	7	43.75
2 - 4 hours	7	19.4	6	28.6	2	12.5
4 - 6 hours	5	13.9	1	4.8	2	12.5
> 6 hours	5	13.9	3	14.3	0	0.0
Total	36	100.0	21	100.0	16	100.0

Question 5 asked how helpful has follow up contact from the teacher trainers been in assisting you to implement the *Peddlesfoots* Curriculum. The majority of the kindergarten and pre-k teachers rated the follow up contact from the teacher trainers as helpful/very helpful.

Table 12. Frequencies and Percentages for Helpfulness of Follow Up Contact.

	April 2008		April 2009		February 2010	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Not/Somewhat Helpful	10	34.5	12	60.0	1	6.3
Helpful/Very Helpful	19	65.5	8	40.0	15	93.7
Total	29	100.0	20	100.0	16	100.0

The teachers were asked for comments on the Implementation Logs. The comments were grouped by general topics: time, positive feedback, negative feedback, problems, concerns, specific comments, and training. The comments regarding time generally involved all the other demands on their time. An example is: "I am behind on the units because of: assemblies, holiday program practice, parties, field trips, practicing fire drills, tornado drills, writing and other curriculum areas, especially since our kindergarten program is still ½ day". The positive comments generally indicated how much their students love the curriculum. For example, "My students and I are really enjoying the *Peddlesfoots* Curriculum. They relate very much to the puppets and stories". A pre-k teacher wrote "I absolutely loved this program and so did my students!! THANK YOU for creating such a wonderful program!!". Two teachers commented that the puppets for the classroom were too large. The negative comments were about the paper work and lessons. "I do not particularly like the lessons. They can be done in a shorter period of time. I am using only those lessons I think are appropriate. I am using the P.Foot program as a supplemental to what I normally do". A pre-k teacher commented "If anything I would condense the huge curriculum notebook. It's bulky and some of the worksheets are repeated in each section". The comments relating to problems, comments, and concerns were specific to particular teachers, such as a conflict with the reading program. Examples of suggestions were offered with respect to training, a request for a mid-year meeting and more time spent on materials in the training session. One pre-k teacher said "Although I did not meet with the trainers, I know they were always available if I needed them".

C.All Outcomes Measured. See attached GRPA Reports for 3 years of implementation-Debbie

Fix

D. The data were examined by type of district after the first year of the study. There were four categories of districts: 1) Urban (3 districts), 2) Suburban (4 districts), 3) Rural (5 districts), and 4) Non-Public (3 schools). The schools were compared by category for teacher behavior ratings. Paired samples t tests were conducted for the teachers in each category to determine whether growth in behavior was significant and consistent across categories. The results show that for all categories of schools, the teachers perceived statistically significant improvement in student behavior.

After the first year of implementation, the growth in literacy was examined for all students in the subscales on the Literacy Checklist. There was statistically significant growth across all four subscales. The data were disaggregated by type of school. The results for the three categories of public school were statistically significant at alpha = .05 for all four subscales. The private schools demonstrated statistically significant growth in speaking and emergent reading. The results for the last two years of implementation did not demonstrate any significant difference from the first year.

E. The teachers estimated of the number of hours they taught the curriculum on the Implementation Log. The number of hours was used to differentiate between students who received more or less of the intervention. A little more than half of the teachers reported using the curriculum one hour or less per week, the rest reported using it more than one hour.

a. Inconsistent return of data by teachers made it difficult to obtain a stable indicator for time spent teaching the curriculum. As a result, teachers for the 2008-2009 implementation year were provided in-depth in-service regarding the importance of consistently completing all three Implementation Logs in a timely manner. In addition, it appeared that teachers increased their use of the curriculum during the last trimester of the school year. Implementation logs turned in for year 3 (spring 2010) were insufficient.

b.First year results demonstrated a significant correlation (Pearson)between hours exposed to the curriculum and positive behavior outcomes. Year two results were similar. Year three, due to insufficient implementation log data, this correlation could not be conducted.

Discussion

A. Interpretation of the results.

Behavior

Year One

The results for improvement in student behavior were positive. The outcomes were achieved. Further, the improvement from the pretest to the posttest for teachers and parents was statistically significant. This was not the case for principals and support staff. However, the adults who interact with the children on a daily basis are parents and teachers, so they would presumably be more aware of the children's behavior. In addition, the principals and support staff see all children, not just the kindergartners, and their ratings reflect the entire school. When behavior was examined by type of school (urban, suburban, rural, and non-public) the results were the same. There was a statistically significant difference from the pre-test to the post-test. There was also a

significant correlation between amount of time spent teaching the curriculum and positive behavior.

The comparison between the cohort group and the post-test intervention group in terms of behavior was not statistically significant. This comparison is between two groups of kindergartners at the end of their school year. The assumption was made that the cohort group would be similar to the intervention group at the end of the year. If this were true, it might indicate that improvement in behavior after a year in kindergarten is due to other variables, such as maturation. However, it is cannot be known whether the two samples were in fact equal. It would have strengthened the results if the cohort group had also done a pre-test. The inherent difficulties in a comparison of this type will be discussed in section D.

The results are strengthened by the fact that the pre-test post-test comparisons hold up when examined by type of school. They are further strengthened by the statistically significant correlation between positive behavior and hours spent teaching the curriculum.

Year Two

In 2008-2009, the questionnaires included behavior items related to each of the nine character traits demonstrating more alignment with the curriculum. There was a significant difference in the post-test parent ratings for self-discipline, caring, and courage. Compared with the cohort group, seven of the nine traits were significant in favor of the treatment group. Only fairness and courage were not significantly different.

For the teachers, the nine paired-samples t tests were statistically significant in favor of the post-test group, with a .05 level of significance. This indicates that the teachers' perceptions of the demonstration of the nine traits improved by the end of the school year. There was a statistically significant difference in favor of the post-test group for all nine subscales at a .05 level of significance. The teachers in the post-test group indicated a more positive perception of the students than the cohort group.

Support staff responses for the nine character traits were significantly higher on the post-test than the pre-test. When the cohort staff responses were compared with the treatment group staff responses, the traits of respect, fairness, self-discipline, citizenship and courage were significantly higher. Principals rated student behaviors higher on the post-test for the trait responsibility. There were no significant differences on the nine traits when the treatment and cohort groups were compared.

Year Three

Parent pre-test/post-test comparisons for the control group showed significant growth for three traits, self-discipline, respect, and fairness. However, for the treatment group, only two traits did not show significant improvement, responsibility and caring. When controlling for pretest scores, only the trait courage showed significant difference. All of the treatment post-test scores had high frequencies of scores greater than 3.5. Self-discipline was 56.8%. Of the remaining eight traits, all were greater than 80% with the exception of respect, which was 78.8%.

Teachers' ratings for 2009-2010 were based on the *Behavior Rating Scale*. Teachers in both the

control and treatment groups rated students on the post-test significantly higher than the pre-test for all nine traits. The treatment and control groups were compared, controlling for the pre-test scores, and there were four traits that were rated higher for the treatment group: trust, fairness, citizenship and courage. The percentages of teacher ratings > 2.5 on the nine traits ranged from a low of 51.4% for self-discipline to a high of 97.3% for perseverance. Eight of the nine traits had percentages greater than 60%, and six were greater than 70%.

Literacy

Year One

There were four measurable outcomes for literacy. Outcome results exceeded the established criteria.

The results of paired samples t tests for all four subscales indicated statistical significance. When the schools were grouped according to the four categories of urban, suburban, rural, and non-public schools, the results were identical with the exception of non-public schools. The non-public schools had significant results for Speaking and Emergent Reading. This strengthens the results of the overall sample. When the literacy measure was compared with the number of hours the curriculum was taught in a month, there was no relationship. It should be noted that it may be somewhat difficult for people to estimate the number of hours they did something every week after two months. Again, the low number of teachers who were consistent with the implementation logs needs to be addressed in the coming year.

As with behavior, there was not a statistically significant difference between the cohort group and the post-test intervention group. However, there is a presumption of equality between the two groups, but without a pre-test for the cohort group there is no way to know. Again, the problems with the design will be discussed in more detail in section D.

It was not expected that the *Peddlesfoots* Curriculum would be solely responsible for any improvement in literacy because literacy skills are taught in the classroom. It is believed that the *Peddlesfoots* Curriculum would enhance student literacy through the teaching of the nine character traits. This cannot be concluded from the results, but it would appear that the time spent on character education did not diminish the growth in literacy in the students, and may have enhanced the learning. This conclusion would be strengthened if there were evidence to support an increase in time spent with the curriculum in the home. This will be attended to in the coming year. Overall, the outcomes with regard to the intervention group are very positive.

Year Two

There are eight measurable outcomes for literacy. At least 80% of students will be rated at an average level of 2.5 or greater on each of eight literacy subscales as measured by the Literacy Checklist. The scale is 1=Not Present, 2=Emerging, and 3=Established. For each of the literacy subscales, the percentage of students at or above an average of 2.5 more than doubled. These percentages for the post-test ranged from 67.9% (metacognition) to 90.6% (phonemic awareness).

The percentages for the other six literacy subscales were between 70% and 80%. The improvement in all nine subscales was statistically significant. The comparison between the cohort and the treatment group was significant on all eight subscales.

Year Three

There were three subscales for the pre-k literacy checklist: 1) listening, 2) comprehension and expression, and 3) visual representation. At least 80% of students will be rated at an average level of 2.5 or greater on each of eight literacy subscales as measured by the Literacy Checklist. The scale is 1=Not Present, 2=Emerging, and 3=Established. The percentage of students rated at 2.5 or higher was 79.4% for listening, 56.1% (up from 15%) for comprehension and expression, and 37.6% (up from 6.7%) for visual representation. Both the control and treatment group showed significant growth in all three subscales. Comparing the treatment and control group, controlling for pre-test scores, the treatment group was significantly higher on listening and comprehension and expression.

Staff Morale

For all three years, the analysis of the support staff questionnaire indicated that the staff responded positively to all items that related to issues that related to working conditions, inter-staff relations, student-staff relations, feelings of being included and valued, being a part of the school community, and their relations with administration. There was generally a high level of agreement to items relating to issues that affect morale.

Parental and Community Involvement

The parent questionnaire results indicated that parents believe that they have a good relationship with the school and their child's teacher. They indicated that they visit the school about once a month. They interact with the child's teacher, but more on a face-to-face basis than by email or telephone. They do not generally participate in PTA meetings. Some parents wrote comments about the difficulty of finding time to go to the school to volunteer or attend meetings due to work and other family commitments. They indicated that they read to their child a great deal, play games with their child a lot, and take their child to the library some.

The parents' comments were very positive and indicated that they are using the materials at home. These results are not surprising in that research shows that there is a strong relationship between parent participation in early years of schooling compared to later years. There was not a direct measure of the amount of time the parents used the materials with their child. This was addressed in the 2008-2009 implementation year. Almost 100% of the 312 parents, who were provided a kindergarten parent kit the prior year, indicated that the children enjoyed the books and CDs. Parents also reported that their children learned valuable information about good character from the curriculum.

Many parents commented that they thought that character education begins at home and should be taught in school as reinforcement. Overall, parents reported working with their child in the home using the curriculum. They were generally supportive of the school and teacher, and believed that they had a good relationship with the teacher and school. Time constraints appeared to be a factor for many parents making it difficult to be involved with the school.

Some comments from parents regarding the *Peddlesfoots* Curriculum are below.

Year One

- My daughter loves the songs and stories! They do a great job of teaching these character concepts! I highly recommend continuation of this program!
- Even my 2 year old loves the books. She and my oldest do. They have me read them just about every day!

Year Two

- This program is wonderful because what my daughter does not learn here at home with me using this program the school (class she had last year) did help her with between my daughters teacher and my self she did very well with this program and I am very happy that the kids get a chance to use this program again this year thank you very much.
- I think the TRUE Initiative has helped to provide a context for discussions with all our children. I can see that the program has made a difference in the lives of our two youngest children.
- My child was in kindergarten last year. We participated last year and I thought the books were wonderful. We read every one numerous times. The CD's were a big hit too! I even learned to sing along. BRAVO

Year Three

- My daughter loves this program! She listens to the cd - chooses to read the Peddlesfoots books over all of her other books - She brings up examples from the stories on a daily/weekly basis. Quotes: When putting on shoes "I use perseverance like Scuff." "Mommy, I broke the DVD. Alexa broke things and she was honest and told her mom." "I have courage and sleep in my bed all night." She retells the stories and relates them to things for herself and her brothers. I'm AMAZED on how much better she's gotten at retelling stories and especially on using the words and examples in appropriate situations. Every child should have character education.
- Character ed should be taught at school and modeled, reinforced at home! My children talk about Alexa, Scuff, and Todd at home constantly and about their decisions and consequences!

The community partners' survey showed strong support for the *Peddlesfoots* Curriculum. They rated the materials and the curriculum highly. They indicated that character education is also the responsibility of the community. They gave many examples of students and parents who were extremely pleased with the curriculum.

Faculty and Administrative Involvement

The teachers involved in the intervention have invested a great deal of time in the evaluation and the teaching of the Peddlesfoots curriculum to their students. They all attended a one-day workshop and agreed to complete all necessary surveys and forms. The IRB required that each teacher place completed student surveys into an envelope without reviewing the responses of individual children. This was an attempt to insure confidentiality of participating children. In addition to completing surveys, teachers completed three implementation logs over the course of the year. They received compensation for completing surveys, implementation logs, and attending a one-day workshop. They did not receive compensation for teaching the curriculum. Teachers were made aware of this requirement by filling out the consent to participate form. The time and

materials used to teach the curriculum differed depending on the teacher. Some teachers indicated that there were distractions that prevented them from spending more time on the curriculum. They cited school activities, holidays, breaks, snow days, fire drills, and keeping up with the school curriculum as some of the distractions that made it difficult with implementation. Most classrooms were self-contained where the teacher was required to teach all subjects. Embedding the curriculum into other subjects helped. Despite some of the difficulties with implementation, they were very positive and enthusiastic about the curriculum. Teachers provided examples of very positive experiences with their students and parents. They were all highly involved in the program.

Administrators were involved, but not to the same extent as the teachers. They attended informational meetings, participated in dissemination meetings for parents, and worked closely with their teachers. Some principals adopted the character traits for their entire school. The principals were responsible for completing two questionnaires and identifying two staff members to do the same. The principal questionnaires were lengthier than the others. The initial questionnaire asked them for a lot of information such as test scores, ethnic breakdown, and awards given to students. When the questionnaires were revised, it was decided that some of the needed information could be found elsewhere so several of these types of items were removed. The questionnaire was still considered time-consuming, but seemed more appropriate. Principals indicated that they viewed the *Peddlesfoots* Curriculum as the foundation of the school's character education and they used it to help solve problems and find solutions. The principals' responses to the questionnaire demonstrated an "entire school" perspective. This was a different focus than the teacher's perspective. Administrators reported that the components of the *Peddlesfoots* Curriculum most heavily emphasized in their school were 1) creating a positive school community, 2) teaching the nine character traits and building character and 3) integration of values into all aspects of curriculum. Because the curriculum was used only in specific classrooms, it was difficult to see the effects on the school as a whole. Overall, the principals were involved, but more peripherally than the teachers.

Improved School Climate

Improvement in school climate can be documented by the increase of positive student behavior reported by teachers, principals, and support staff. The results of the pre-post comparisons verified this. The parents and teachers both rated the behavior of the students higher at the end of the year. The results indicated that both groups demonstrated statistically significant improvement in student behavior.

Any changes in the behavior of participating children were most apparent to parents and teachers, because they had daily contact with the students. The principals and support staff saw the entire student body daily and were less likely to observe changes in the students who were most affected by the curriculum.

In general the areas that indicated the greatest acceptance of students with intellectual disabilities by other students were categorized as areas within the normal school day, where all students participated. This included gym, recess, lunch, hallways, and classrooms (except art). Those activities that involved voluntary participation, such as after school programs, clubs, and athletics received lower percentages of responses. There was an increase between the pretest and posttest in almost all cases. The cohort, control, and treatment groups tended to be similar.

B. The results in Section A can be generalized to schools in intermediate districts similar to Saginaw. Because there was not random sampling, the ability to generalize is limited. The similarity of disaggregated outcomes regarding student behavior and literacy does give some more credence to the overall generalizability. Had there been different results for the different types of districts, it might indicate that the sample suffers from selection bias based on type of school. Of course there are other types of selection bias that may be present. For all three years participation of schools was considered voluntary.

C. For early childhood educators, policymakers, and researchers in the character education field, these results indicate that character education can be taught at an early age. There is definite support for doing so on the part of school personnel, students, parents, and community. Academic success cannot be simply focused on cognitive, content-based competencies. Healthy social and emotional development is the foundation for life-long learning. Research indicates that the relationship with caregivers and/or teachers and a child's environment can have a significant impact on neural development and consequently school performance and social competence. Children's developing identity and self-esteem are reflected in their ability to form and maintain relationships and to demonstrate self-regulation, both vital skills needed to support cognitive development and school success. The *Peddlesfoots* curriculum supports a positive environment and positive caregiver/teacher relationships by providing real life scenarios about how to develop positive relationships and self-regulation skills. The use of the curriculum at home and at school has the potential of helping young children thrive in a safe and positive learning environment. In addition, young children demonstrated receptive and expressive understanding of the nine character traits. Enhancing language opportunities can help foster future literacy skills.

D. Aspects that interfered with the intervention's effects included the successive cohort research design, selection of groups, heavy reliance on self-reporting instruments, item and instrument non-response, and IRB insistence on anonymity of consent for student participation to teachers in the first two years.

The successive cohort model was chosen to avoid the ethical dilemma of withholding the curriculum from students in Saginaw County. Saginaw County has high infant mortality, high poverty, unemployment, and many other problems that have a direct relationship with student learning and behavior. Thus, even though the difficulties of this model were recognized, the TRUE Initiative felt it was imperative to allow anyone interested to participate. Discussion for a true experimental design in Year Four was executed. The control group participants were assured that they would participate in a teacher training and receive the curriculum in June 2010. This ameliorated the ethical dilemma that we faced previously.

In the first two years, the lack of pre-testing of the cohort group made it impossible to establish equivalency of the cohort and post-test intervention groups. Inequality between comparison groups made the results difficult to interpret. Both groups were voluntary. There is definitely selection bias when volunteers are used. Any comparison of the cohort group with the treatment group was also difficult to interpret. The administration of the instruments during different school years also confounded the results. If the post-tests of both the cohort group and the intervention

group were done during the same school year, it could potentially reduce the threat of events that may have influenced the results.

Another aspect is that most of the data collected were from self-reporting instruments. There is always a tendency to positively overstate one's perceptions. Some other means of data collection would help to corroborate the information gathered on the questionnaires. Face to face interviews were conducted each year.

Non-response is known to confound results. Some items on the multiple instruments were not marked and many questionnaires were not returned. For example, in the first year approximately 75% of participating parents returned in at least one survey, but not both. In year two approximately 82% returned in at least one survey. In year three approximately 50% of parents in the treatment group responded to at least one questionnaire. The lower return rate in year three could be partially explained by the fact that parents did not volunteer. TRUE staff spent a great deal of time trying to get items turned in. The amount of data collection required of the teachers very likely resulted in incomplete data. One of the biggest challenges involved the IRB's insistence on teachers not knowing which students participated in the evaluation. It was important to work with the IRB to alleviate some of the paperwork for the teachers. As a result, the cost of duplicating questionnaires, bundling packets for teachers, and sorting through return mail was very expensive. In the final year, IRB granted "Exemption to presumption of documented consent:" This allowed examiners to use all data from the children.

E. A limitation of the study was that the teachers volunteered to participate, which could introduce selection bias. The second limitation is that of data collection, which was addressed in detail in the previous section.

F. Using the successive cohort design made it difficult to compare groups. This design was originally presented and discussed at the Savannah Technical Assistance Meeting (March, 2007) as a possible way to conduct an evaluation. After using this design, co-evaluators and TRUE team members agreed that this design posed difficulty in analyzing data and interpreting results. Problems with the design have been noted above. As a result a more traditional control/experimental design was used in the final year of the project.

G. Some of the lessons learned included: 1) the importance of instrument selection, 2) importance of the research design, 3) obtaining a realistic estimate of the logistics of data collection and analysis (surveys, letters, explanation letters, follow-up), 4) how to work with the constraints of IRB, 5) having a year to plan was critical, 6) having materials prepared to disseminate at teacher training sessions, 7) providing mandatory all day training for participating teachers, 8) what elements need to be included in the training to help teachers to have a better understanding of the project and their roles, 9) making sure that the TRUE website is up to date, 10) providing teachers visual reminders of when items were due (TRUE Calendar), and 11) having parents provide data on implementation in their homes. A smaller pilot study conducted before plunging into a full implementation may have helped identify and rectify problems we encountered.

The project went through a great deal of work cleaning up surveys after the initial administration. The initial questionnaires used as recommended by other participants had to be revised to align

with the nine character traits represented in the curriculum and Michigan GLECs/early childhood standards. In the final year, alignment was also made with the Creative Curriculum.

Since some teachers were unclear regarding specific dates to return materials, a calendar designed by the TRUE team and given to teachers at trainings, provided visual reminders of due dates.

It became apparent that data regarding parent implementation was crucial. As a result, questions regarding implementation were included in their questionnaire.

It took several months to develop the ability to physically disseminate and receive the data, enter it, and analyze it in a timely manner. The sheer volume of materials that went out to the schools and came back was hard to manage. The forms that were returned needed to be collated with permission forms, separated by schools, given id numbers, organized for storage, and stored in a secure place. Unusable forms had to be destroyed. The handling of data collection became a full time job.

The first year of the implementation involved many hours of work to make the task of data collection manageable. During subsequent two years, many hours were spent refining the instruments to align with literacy standards and the nine character traits used in the curriculum.

It may have been helpful to have had an opportunity for direct observation of children in classrooms by trained observers. Budget constraints did not allow for this to happen.

In addition, the third year was anticipated to be the culmination of this project. Thus what was learned in the first two years was implemented in the final year. A true experimental design, more aligned instruments, full participation of parents and students, and the true intent of this research, specifically the target age (preschool) was used. However, budget cuts made it difficult for implementation, program monitoring, and evaluation. It should be noted that co-evaluators completed the final summary without compensation. The resources were not there for follow up which impacted the spring questionnaire return rate resulting in incomplete data making it difficult to draw conclusions.

Despite the shortcomings in the original design, the difficulties of data collection management, and the problems with the instruments, the results were very good for all three years.