DOCUMENT RESUME

ED 345 570 FL 020 400

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TITLE Academic Excellence Project P.I.A.G.E.T., Cycle I. 1987-1990 Three Year Report of Title VII.
INSTITUTION Bethlehem Area School District, Pa.; Pennsylvania State Univ., University Park.
SPONS AGENCY Office of Bilingual Education and Minority Languages Affairs (ED), Washington, DC.
PUB DATE 92
CONTRACT G008710649
NOTE 99p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Bilingual Education Programs; *Early Childhood Education; *Excellence in Education; Federal Programs; Home Programs; *Limited English Speaking; *Parent Participation; Program Descriptions; Young Children
IDENTIFIERS *Project PIAGET (Bilingual Education)

ABSTRACT

Project PIAGET (Promoting Intellectual Adaptation Given Experiential Transforming) is a federally-funded bilingual early childhood and parent program serving limited-English-speaking bilingual children aged 2-8 years and their parents. The project is designed to promote English language and conceptual growth among young children and influence parents' attitudes toward their children's learning and development. The classroom curriculum is organized by subject area and theme, introducing specific concepts at different age levels. Twenty-two teaching strategies are specified for classroom use. Daily activity plans and daily observation cards are used to plan classroom activities and monitor performance. Additional testing helps track overall student progress, and performance of teachers and aides is evaluated through systematic observation. The home component is designed to train parents to be their children's teachers at home through partnership with the school, increase home activities with children, and increase positive expectations and attitudes concerning learning. The home curriculum helps involve parents directly in classroom work and reinforce and extend concepts taught there. Progress is assessed by systematic home visits and testing. In the Bethlehem (Pennsylvania) Area School District, results include consistent and significant English language gains among students and parenting concept acquisition among parents; enrollment increases; and positive participant evaluations. (25 references) (MSE)

1987 - 1990 THREE YEAR REPORT OF TITLE VII ACADEMIC EXCELLENCE PROJECT P.I.A.G.E.T. CYCLE I

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[1] Title VII Academic Excellence Project P.I.A.G.E.T. (1987-1990) was funded under Grant Number G008710649 by The Office of Bilingual Education and Minority Languages Affairs (O.B.E.M.L.A.), The United States Department of Education to the Bethlehem Area School District, as contractor, and The Pennsylvania State University, as subcontractor. Accordingly, the views expressed in this report do not represent those of the funding agency, contractor, or subcontractor. The "Introduction and Setting" to this report was presented by Dr. Thomas D. Yawkey at the Graduate School, Ewha Woman's University, Seoul, Republic of Korea, June, 1991. A project report of this magnitude rests on the assistance, labor, and understanding of many individuals. Since 1987 Bethlehem Area School District's Director of Title VII Academic Excellence Project P.I.A.G.E.T., Mr. Nicholas L. Facchiano has provided continuing administrative guidance and support and fiscal management to enable P.I.A.G.E.T. to expand regionally and nationwide. For bilingual program and bilingual staff development of P.I.A.G.E.T., Mrs. Iris Cintron's expertise is acknowledged and appreciated. Mrs. Cintron serves the Bethlehem Area School District as Coordinator of Minority Language Programs. Our P.I.A.G.E.T. Disseminator, Ms. Mary S. Ramirez's assistance, planning and follow through and tireless efforts to P.I.A.G.E.T. are recognized and much appreciated. For all multivariate statistical analyses on parent site data, the grateful assistance and help of Ms. Virginia Moreno, currently a Ph.D. Candidate in the Program in Educational Psychology, The Pennsylvania State University is greatly appreciated and acknowledged. The assistance and thoroughness of Dr. Juan Morales, now of California State University, Bakerfield, in running 1988-1989 Grand Rapids (MI) adoption site data is recognized. In addition, the dedicated efforts of Mr. Janusz Petrykowski, Ph.D. Candidate in Early Childhood Education, The Pennsylvania State University and P.I.A.G.E.T. Graduate Assistant, are recognized for his numerous data runs of P.I.A.G.E.T. adoption data in Grand Rapids (MI), Portland (ME), Tacoma (WA), and Migrant Programs (Commonwealth of Pennsylvania). Furthermore, Mr. Petrykowski is cited for his writing and authorship of major portions of the section to this report entitled, "1987-1990 Management Evaluation" (beginning on page 51).Finally a special thanks and appreciation for their patience, guidance and understandings go to Dr. Mary T. Mahony, O.B.E.M.L.A. Project P.I.A.G.E.T. Officer, and to Mrs. Carolyn Jenkins, U.S. Department of Education's P.I.A.G.E.T. Grants Officer , both of Washington, D.C.

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Executive Summary

Project P.I.A.G.E.T. was operating as Cycle 1, Title VII Academic Excellence from 1987-1990. With its Classroom and Home Components, P.I.A.G.E.T. prepares systematically the young LEP child as a "language user and thinker" and his/her parent as an "interacter within social and physical environments."

For impact results, the parent site in the Bethlehem Area School District showed consistent significant English language gains for children and parenting concept acquisition for their parents across Cycle 1. For impact results on adoption sites, data show consistent and significant increases for P.I.A.G.E.T. preschoolers and parents enrolled in the program. Data on management also show constructively the three year flow of the project. Evaluations from awareness and training presentations show high mean scores received from participants in these presentations. Finally, anecdotal records from P.I.A.G.E.T. adoption staff support qualitatively the impact that this Academic Excellence Program this made from 1987-1990.

1987 - 1990 Three Year Report of Title VII Academic Excellence

Project P.I.A.G.E.T.

Introduction and Setting

Title VII Project P.I.A.G.E.T. (Promoting Intellectual Adaptation Given Experiential Transforming) is a bilingual early childhood and parent program serving young bilingual children, ages two to eight, and their parents. It is an Academic Excellence model and is targeted for adopting agencies in Pennsylvania, New Jersey, New York, and the New England States and also is disseminated to other agencies in the states of Michigan and Washington. As an Academic Excellence Model, P.I.A.G.E.T. Project provides "promising practices and programs" through dissemination and adoption. More formally,

> "The term 'programs of academic excellence' means programs of transitional bilingual education, developmental bilingual education, or special alternative instruction which have an established record of providing effective, academically excellent instruction and which are designed to serve is models of exemplary bilingual education programs and to facilitate the dissemination of effective bilingual educational practices (Fy 1987 Application for . . . Projects, 1987, p. 26)."

Bilingual programs under United States Public Law 98-511 (October 19, 1984) serve ". . . growing numbers of children of limited English proficiency . . . [who] . . . have a cultural heritage which differs from that of English proficient persons . . . (Fy 1987 Application for . . . Projects, 1987, p. 23)." Thus, bilingual programs in the United States serve primarily children who speak languages other than English in home and community settings and the focus is to develop their English language capacities while

at the same time expand their native languages and cultural heritages (Fy 1987 Application for . . . Projects, 1987, p. 23).

One of the major goals of Title VII Project P.I.A.G.E.T. is to disseminate and ". . . implement the P.I.A.G.E.T. Dissemination Program with its singular focus on adoption in identified areas, Yawkey, 1987, p. Reference K)." Agencies working with young bilingual children in group settings which have adopted the P.I.A.G.E.T. program are local public school districts, parochial school districts, preschools, day care and nursery programs, federally funded preschool programs such as Head Start and migrant education programs. Examples of various agencies which have adopted the program, children's ages, and language groups served include:

1. Public Schools in Bethlehem, Pennsylvania; five years olds and serves the Spanish language group. The Bethlehem Area School District is also the home, parent, and chief demonstration site where observation and training may occur for staff of adopting agencies.
2. Public Schools in Portland, Maine: three and four year old children and serves Cambodian (Khmer), Vietnamese, Russian and Polish languages;
3. Migrant Program of the Commonwealth of Pennsylvania, New Oxford, Pennsylvania; three to five year old children and serves Haitian (i.e., French-Creole) and Spanish languages;
4. Parochial Schools, Diocese of Allentown, Pennsylvania; four and five year old children and serves Spanish and Portuguese languages;
5. Community Education and International English Program in Grand Rapids, Michigan; three to five year old children and serves Korean, Chinese, Vietnamese and Spanish languages, and

c. Federally-funded bilingual preschool program in Tacoma, Washington; three and four year old children and serves the Cambodian (Khmer) language.

Project P.I.A.G.E.T. rests on two aspects: (a) theoretical foundations, and (b) research results. Its theoretical foundations are based largely on Piaget's (1962, 1963, 1965, 1969) research and writing describing children's acquisition of cognitive and language systems. From Piaget's writings it is assumed that:

1. mental concepts will influence English language growth in bilingual chi'dren whose dominant language is not English,
2. emotive, affective, and other cognitive structures evolve within supporting social settings of positive child-child and child-adult interactions,
3. concrete materials and experiences rather than verbal, didactic instruction and in social context rather than isolation facilitate the young child's cognitive and language growth,
4. cognitive and language development and more specifically symbolization are interrelated and actively constructed by the young child rather than passively receiving them from the adult, and
5. parents and "significant others" including the extended family impact children's development and through modeling and imitating can be shown how to work constructively with their children in home settings.

These theoretical foundations and assumptions basic to the P.I.A.G.E.T. program are detailed elsewhere (Peters, Neisworth & Yawkey, 1985, Yawkey, 1987a, 1987b).

The second aspect is results of P.I.A.G.E.T. research studies on young bilingual children's and parent's growth (e.g., Aponte, et al., 1986, Yawkey, 1991, Yawkey, Facchiano & Nivette, as submitters, 1991). From 1981 to the present, the results of the

P.I.A.G.E.T. program are consistent year to year and are summarized below (Aponte, et al., 1986, Yawkey, 1987a, 1991).

1. P.I.A.G.E.T. children at post test time received significantly ($p < .01$) higher scores than comparison group bilingual children at the same time period on English language receptive and expressive communication.
2. Parents of P.I.A.G.E.T. children yielded significantly ($p. < .01$) higher scores at post test time than comparison group bilingual parents at the same time period on positive perceptions and attitudes toward their children's learning and growth.
3. In analyzing most recent data returns from P.I.A.G.E.T. adoption sites, the results of pre and post tests show that P.I.A.G.E.T. children received significantly ($p < .05; .01$) higher post than pre test scores on English language receptive and expressive communication and that P.I.A.G.E.T. parents yielded significantly ($p < .05; .01$) higher post than pre test scores on positive perceptions and attitudes toward their children's learning and growth (Yawkey, 1991).

From theoretical and research perspectives and across parent and adoption sites, the P.I.A.G.E.T. program impacts children's English language and conceptual growth and parent's attitudes and perceptions toward their children's learning and development.

The successes of Project P.I.A.G.E.T. can be explained by its twin components of classroom and home programming. A description of each follows.

P.I.A.G.E.T.'s Classroom Component

This classroom component focuses on the following three main goals (Yawkey, 1987a). They are to:

1. develop and increase young bilingual children's receptive and expressive English language communication and extend their native languages and cultures,
2. increase their knowledge about their physical and social environments, and
3. increase their positive feelings about themselves and in the activities they perform with their children.

These three goals are implemented by key elements of the P.I.A.G.E.T. Classroom Component: curriculum, instructional strategies used by the staff, Daily Activity Plans and Daily Observation Cards, and monitoring. These elements are explained in the following paragraphs.

Curriculum

The P.I.A.G.E.T. Curriculum consists of 202 major concepts for young bilingual children, preschool to grade 3. A breakdown of these concepts by age/grade levels and member of curricular concepts follows:

1. two to three year olds, 40 major concepts (preschool level),
2. four to five year olds, 60 major concepts (preschool and kindergarten levels), and
3. six to eight year olds, 102 major concepts (grades one to three).

However, given the children's conceptual levels and integrated nature of the curriculum, younger children may be able to work well with more advanced curricular concepts and older children may perform capably at less advanced ones. The age/grade levels and numbers of concepts serve as guides to adopting agency's planning and follow through of curriculum development.

The P.I.A.G.E.T. Classroom Curriculum as organized by subject areas and themes (Title VII Staff of Project P.A.L.S., Garcia & Yawkey, 1987). With both subject area and theme organization, the adopting agencies can choose which format is most applicable to their situation. The organization by subject areas include (Title VII Staff of Project P.A.L.S., et al.):

1. mathematics
2. art
3. music/movement
4. cultural studies
5. physical development
6. social/emotional
7. science
8. language

With the theme organization, several examples follow (Title VII Staff of Project P.A.L.S. et al.):

1. self
2. family and community
3. transportation
4. seasons
5. weather
6. holidays
7. animals
8. plants

Some examples of curriculum concepts include:

1. rate counting in English from zero onward

2. identifying numerals in native language from zero onward
3. exploring and experimenting with various art media
4. performing dances form various cultures
5. describing community helpers, their jobs and responsibilities
6. returning toys and other learning materials after using them
7. talking about various weather conditions
8. using verb tenses

The scope of the curriculum shows richness and depth of potential conceptual and language growth. In addition, these major curricular concepts become planning guides and benchmarks for classroom staff and children. Then, too, these curriculum and concepts can be modified by adopting agencies to assist them in their development and implementation of sound, effective curricular practices. Further, the order in which these curricular concepts are introduced depend on the young bilingual children's conceptual level, agency's staff and parent's input. Finally, the curriculum concepts are devised to show progress children and classroom staff make throughout the year. For this purpose, progress checklists are built into the curriculum. Classroom staff check in columns when the concepts are first introduced (e.g., mouth, season) and use a second check to show when the concepts are mastered. This progress checklist provides an on-going formative evaluation of curriculum planning, teaching, learning and mastery. The curriculum is anchored in the P.I.A.G.E.T. classroom in three ways or modes which identify the remaining key elements (Yawkey, 1987a).

Instructional Strategies

This second major key element is a mode by which the P.I.A.G.E.T. Curriculum is implemented in the classroom. These instructional strategies show classroom teachers and aides "how" to teach, guide and develop language and mental concepts

in young bilingual children. The following figure lists the major teaching strategies (Yawkey, 1990).

Examples and uses of two of these strategies illustrate what they are and how they are used. The two strategies, as examples, are strategy numbers one and five (see Figure 1).

For strategy number one, "Determine Cognitive Developmental Levels," the classroom staff tries to understand the young bilingual children's current levels of language and conceptual growth. In understanding their current levels, the P.I.A.G.E.T. staff can be better able to assist and guide their growth through individual, small and large group activities.

One example of implementing this strategy is for the staff "to watch how children use their bodies to represent actions and movements." For example, the staff observes children's mental/verbal actions and movements as they say and do finger play games, sing and dance to records and cultural songs. As the children say and do these activities and show difficulty perhaps in coordinating their bodies with spoken words, this observation may imply to the P.I.A.G.E.T. staff that these children are operating at the index level of conceptual and language growth. The index level suggests additional, active experiences where children have opportunities to coordinate using language with objects (Peters, Neisworth & Yawkey, 1985). If children show no difficulty in coordinating actions, this observation to the P.I.A.G.E.T. staff may imply that these children in these activities are conceptualizing and using language and movements at the symbol level (Peters, Neisworth & Yawkey, 1985).

A second example of using this strategy is observing how well children use common, familiar objects to represent other objects. As children play or are involved in adult-guided activities, can they, for example, use "crayons for airplanes,"

Figure 1

Listing of Major Teaching Strategies

Strategy 1:	Determine Cognitive Developmental Levels
Strategy 2:	Create Stimulating Environment
Strategy 3:	Diagnose Levels of Language and Conceptual Development
Strategy 4:	Follow Daily Activity Plan Dependent Upon Child's Entering Behavior
Strategy 5:	Use Concrete Objects for Language and Conceptual Development
Strategy 6:	Provide Active Experiences for Language and Conceptual Development
Strategy 7:	Use Constructive and Sociodramatic Play
Strategy 8:	Match Active Experiences With Cognitive, Affective, and Psychomotor Development
Strategy 9:	Meet Individual Needs
Strategy 10:	Provide Positive Reinforcement
Strategy 11:	Request Completion of Prescribed Activities
Strategy 12:	Provide Language Substitution Patterning Drills
Strategy 13:	Use Replacement Patterning Drills for Language Practice
Strategy 14:	Employ Visual Stimuli and Questioning for Language and Conceptual Development
Strategy 15:	Use Non-Visual Stimuli for Language and Conceptual Development
Strategy 16:	Develop Language Memory and Recall Through Questions About Objects and Experiences
Strategy 17:	Employ Directed Dialogue for Oral Language Development
Strategy 18:	Monitor Verbal Responses
Strategy 19:	Provide Students With Choices of Activities
Strategy 20:	Determine Interests and Needs
Strategy 21:	Provide Objects and Events That Give Feedback to Children
Strategy 22:	Provide Social Feedback for English Language and Conceptual Development

"cardboard boxes for cars," and "toy soldiers for dinosaurs." If difficulties are observed, this may imply to the P.I.A.G.ET. staff that these children are operating at the index level in performing these activities (Peters, Neisworth & Yawkey, 1985). The children may be operating at the sign level in these activity (Peters, Neisworth & Yawkey, 1985).

For strategy number five (See Figure 1), "Use Concrete Objects for Language and Conceptual Growth," the classroom staff understand that concrete objects rather than verbal, oral statements, instruction and verbal adult-child communication assist language and conceptual growth. A major developmental principle of Piaget's cognitive theory is that young children's growth evolves through their interactions with concrete, familiar objects (Peters, Neisworth & Yawkey, 1985).

One example of implementing this strategy is to provide children with concrete objects for use in their activities. Relatedly, P.I.A.G.E.T. staff learn to guide children's language and conceptual growth through concrete objects and urging children to use and interact with these objects. These objects in addition serve to motivate children and stimulate and develop their thought and language.

A second example of using strategy number five is for P.I.A.G.E.T. staff to examine their classroom environment to determine whether there are varieties of materials for children to use. A useful approach to determine object variety is to establish whether objects in the classroom represent four categories or groups (Yawkey & Trostle, 1983). For classroom examination purposes, these useful categories are: instructional, constructional, and real objects and toys. In surveying the P.I.A.G.E.T. classroom staff determine whether there are examples of objects which are:

1. skill-oriented, closed-ended, and convergent objects (i.e., instructional),

2. open-ended and divergent with children determining outcomes (i.e., constructional),
3. adult objects used by children (i.e., real materials), and
4. miniature replicas of real objects made for children (i.e., toys).

As a result of this survey, P.I.A.G.E.T. teachers may wish to add objects of particular categories and select those that match better the child and/or adult initiated activities (Yawkey & Trostle, 1983).

Daily Activity Plans/Daily Observation Cards

The third major key element of the P.I.A.G.E.T. program and the second way or mode of anchoring the curriculum is the Daily Activity Plan (DAP) and Daily Observation Card (DOC). Both modes are explained below.

DAP. The DAP is a tool used by P.I.A.G.E.T. staff to plan and implement activities in the classroom (Peters, Neisworth & Yawkey, 1985, p. 274-276) has the following characteristics:

1. The DAP emphasizes integration of learning experiences for young bilingual children.
2. It shows how "massed experiences" focus on a critical goal and the critical goal is completed through different materials and numerous activities -- all of which emphasize the goal.
3. The DAP stresses holistic growth processes in which activities impact language, cognitive, socio-emotional and physical development systems.

The DAP has six parts: general information, objectives, materials, presentation, extensions and evaluation (Peters, Neisworth & Yawkey, 1985, p. 274-276).

In the general information part, basic details are included such as the place of the activity, time period encompassing the activity, and number of children participating in it. If there are any special locations required for the activity, these needs are identified in this section.

The second part of the DAP focuses on objectives. The staff member identifies the major processes children use in the activity and the children's outcomes or major products. This section sets the growth expectancies -- which may be used as performance criteria against which to measure whether they are accomplished or mastered (Peters, Neisworth & Yawkey, 1985, p. 275). As major processes and products, this section provides a clear understanding of the children's thinking (Peters, Neisworth & Yawkey, 1985).

The third part of the DAP is the materials. The common materials used in the activity are identified and described. Here, Peters, Neisworth & Yawkey (1985, p. 275) note that the materials should be identified specifically, "...because the nature of the materials often determines whether or not children are able to do the activity." Familiar, common materials and objects are more preferred than novel, unfamiliar objects in learning activities because children's level of understanding is higher with the former than with the latter ones (Peters, Neisworth & Yawkey, 1985, p. 275).

The presentation is the fourth part of the DAP. This part tells how the activity is introduced to the children and sets the motivational tone for it. In addition, this part establishes steps the adults and/or children follow in doing the activity (Peters, Neisworth & Yawkey, 1985, p. 276). These steps in the procedure may be listed from easiest to more difficult as children progress with the activity.

The fifth part is the extensions (Peters, Neisworth & Yawkey, 1985). The main idea is to describe "...different ways to present the same activity to different children or at various times of the year (Peters, Neisworth & Yawkey, 1985, p. 276)."

The sixth part of the DAP is evaluation. As staff observe children perform the activity, they gather ideas on how well the children completed it. These observations are written as "comments and suggestions." In addition, the information gathered from the use of the Daily Observation Card (DOC) may be summarized in the evaluation (Peters, Neisworth & Yawkey, 1985, p. 276).

A completed example of a DAP appearing in Table 1 (see page 14) (Morales-Flores & Yawkey, 1990) shows these six parts. More detailed discussion of these DAP parts is found elsewhere (see Peters, Neisworth & Yawkey, 1985).

DOC. The DOC is a companion tool with the DAP and is used by P.I.A.G.E.T. staff to monitor and evaluate children's learning processes and products used in the activity. In P.I.A.G.E.T. programs there are six parts to the DOC: general information, objectives, names, scoring and comments (Morales-Flores & Yawkey, 1990, Peters, Neisworth & Yawkey, 1985).

In the first part of the DOC, the general information tells the knowledge or subject area in which the evaluation occurred and the title or name of the activity (Peters, Neisworth & Yawkey, 1985).

The second part of the DOC is the objectives. They describe the process and product concepts the children use in the activity. These thinking conceptualizations may include observing, predicting, classifying, and so forth. The objectives are written in columns, from left to right, across the top of the DOC. As children are observed to use various conceptualizations, the staff marks which ones the children use.

Table 1

FOR THREE YEAR OLDS

Daily Activity Plan (DAP)[1]
P.I.A.G.E.T. Program[2]

1. General Information:
   A. Time: Free choice time
   B. Place: Any table, floor area, or water table
   C. Children: Groups of two to five children

2. Objectives:
   A. Given a variety of common objects, the children will predict which of the things will float or sink.

   B. Given a variety of objects, a plastic dish pan with water (or a water table), the children will be able to identify which things float or sink. (physical knowledge)

3. Materials:
   Common ones such as a sponge, small rock, cork, small wooden block, ball, metal spoon, sea shell, leaf, feather. (Put all the objects in a bag. You will surprise the children as you pull one object at a time from the bag.)

4. Presentation:
   A. Introduction: "Today we have a very special activity. There are different things in this bag that I will share one by one. Please tell me which of these things will stay on top of the water and which of them will sink in water."

   B. Procedure:
      1. Introduce the words sink and float to the children.
      2. Ask the children to predict which objects will float or sink.
      3. Encourage each child to predict whether the things will float or sink when placed in water.
      4. Ask the children to test their predictions.

5. Extension:
   A. Physical knowledge: The children choose additional objects from the classroom that they would like to test in the water. They predict first if the object will sink or float.)

   B. Social knowledge: The youngsters "Experience" and use the words sink and float and will be able to understand their meaning.

6. Evaluation:
   A. Daily Observation Cards: Physical knowledge (See following DOC for three year olds)
   B. Comments and Suggestions:

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[1] Peters, D. L., Neisworth, J. T. & Yawkey, T. D. (1985). Early childhood education: From theory to practice. Belmont, California: Brooks/Cole Publishers.

[2] DAP examples written by: Juan R. Morales-Flores, Early Childhood Teacher and Graduate Assistant for the P.I.A.G.E.T. Program, Fall, 1989.

These objectives change from activity to activity. In addition, the children's level and type of involvement may change.

The third part is the list of names of children who participate in the activity. The children's names are listed consecutively on the DOC form. As children perform the activity, the staff marks the name of the child and which one or ones of the objectives he or she uses. The second and third parts of the DOC relate to the scoring.

The scoring or fourth part of the DOC is critical because it tells how well the children perform the objectives. In the P.I.A.G.E.T. program the staff uses the following mastery scale: 1 for "mastery" (above 60% level), 2 means "partial mastery" (at or below 60% level), 3 for "mastered with assistance" and 4 means "did not master" (Morales-Flores & Yawkey, 1990). Essentially, as staff observe children in activities, they mark either 1, 2, 3, or 4 beside their names and under the objective or objectives used by them. This monitoring system shows the day to day performance of the children, and it becomes an on-going record of accomplishments and progress and establishes the children's level of proficiency in using the objectives.

The fifth part of the DOC is comments (Morales-Flores & Yawkey, 1990, Peters, Neisworth & Yawkey, 1985). Comments are written by the P.I.A.G.E.T. staff who observe the children performing the activity. The comments are critical anecdotes that occurred and are written on the same line as the child's name. This part provides additional information about the children and their levels of mastery.

A completed example of a DOC appears in Table 2 (see page 16) (Morales-Flores & Yawkey, 1990). It illustrates the parts to the DOC and how they are used. A more detailed explanation of the DOC is found in Peters, Neisworth & Yawkey (1985).

TABLE 2

FOR THREE YEAR OLDS

Daily Observation Card (DOC)

P.I.A.G.E.T. Program

Objectives

Physical Knowledge (Knowledge Area) Sink or Float (Activity Title) 3 year olds	Observes	Explore Objects	Predicts Outcomes	Follows Through and Tests Objects	Verbalizes Outcomes		Date: September 20 Teacher: Mrs. Robles
Child's Name							Comments
1. Janet Kline	1	1	1	1	1		Great job!
2. Tong Ku	1	1	1	1	1		Great job! Show difficulty pronouncing "sink" in English.
3. Linda Smith	1	2	1	4	1		Showed distress at getting wet.
4. Tai-Wei Lee	1	3	3	3	3		Shows interest but appears very shy
5. Mick Rivera	3	1	1	3	1		Needs practice in following directions and waiting for his turn.

Mastery Scale:
1 - mastery (above 60% level)
2 - Partial Mastery (at or below 60% level)
3 - Mastered With Assistance
4 - Did Not Master

[1]Peters, D.L., Neisworth, J.T. & Yawkey, T.D. (1985). Early childhood education: From theory to practice. Belmont, California: Brooks/Cole Publishers.

[2]DOC examples written by: Juan R. Morales-Flores, Early Childhood Teacher and Graduate Assistant for the P.I.A.G.E.T. Program, Fall 1989.

Classroom Monitoring

Monitoring is the third major key element of the P.I.A.G.E.T. classroom component and a final way or mode that anchors the curriculum. This key element focuses on documenting and evaluating performance of young bilingual children and P.I.A.G.E.T. staff. This monitoring of performance provides both on-going day-to-day as well as long-term information that is critical to documenting the impact of the project. Explanation of children's and staff's monitoring devices follows.

Children's Monitoring. Monitoring of young bilingual children's performance enrolled in the P.I.A.G.E.T. program consists of both summative or long-term, pre-post evaluation as well as day-to-day formative, short-term evaluation.

For summative evaluation, the Peabody Picture Vocabulary Test (PPVT) and Preschool Kindergarten Bilingual Inventory (PKBI) are administered.

The PPVT is an internationally recognized assessment instrument published by the American Guidance Association. It is used primarily to assess and then determine the youngster's receptive language capacities and yields scores for a number of areas, such as mental age. Reliability and validity coefficients and descriptions of results with normed native language and English speaking populations are readily available in the instructor's manual to this instrument. It is used widely with young children, 2 through 7 years old and with adults. The individual being assessed by the PPVT listens to a word and is asked to "point to" its concrete referent for the word and the response is scored "correct" or "incorrect." The total number of correct verbal-word/referent objects that the individual points to is then converted to factors such as mental age using the directions and tables outlined in the instructor's manual. The PPVT is administered in English. It takes 15 to 20 minutes to administer to each child.

The PKBI was designed by the Bethlehem Area School District's staff. It has been used with young bilingual children in Bethlehem (PA) since 1976 and was modified several times given research data. It is used to primarily screen young bilingual children for English language deficiencies and the total raw score determines whether the youngster is placed in bilingual or English-dominant classrooms. The reliability for this instrument is .95 (Yawkey, 1983b). The language areas which are measured by the PKBI are: (a) social language awareness (e.g., knowing child's name, identifying names of family members), (b) auditory language (e.g., repeating what examiner says using examples from numbers, directions), (c) visual-motor capacities (e.g., drawing and copying figures), (d) language articulation (e.g., fluency and reproduction of English sounds), (e) gross motor (e.g., hopping); and, (f) quantification (e.g., one to one correspondence). The child's responses to each of the questions are scored "successful" or "unsuccessful" based on acceptable response criteria for each question. The range of points across the total test is 1 to 191 points. This instrument was administered to the children in English and takes two hours or 120 minutes per test to administer.

For formative, day-to-day monitoring of children's performance, the Daily Observation Card (DOC) is used. (See the description of the DOC in the previous section of this paper.)

Staff's Monitoring. The monitoring of P.I.A.G.E.T. classroom teacher and aide staff is an on-going, week-to-week process. This staff monitoring procedure assures the proper uses of the P.I.A.G.E.T. teaching strategies, implementation of the curriculum and provides continuing feedback to staff. This P.I.A.G.E.T. classroom monitoring form uses systematic observation techniques for monitoring on-going verbal and nonverbal

actions of staff in social group context (Johnson, 1985c). See Figure 2 (page 31) for an example of this monitoring instrument.

From Figure 2, (see pages 20 and 21) teacher/aide strategies appear on the left column and in listing from strategy or behavior numbered 1 to 23 and onward. Across the top of this instrument are 15 time segments or time blocks, each divided into units of 10/10. For each unit of 10/10, the rater:

1. observes for 10 seconds and then marks "checks" in the column for 10 seconds those strategies or behaviors that occurred during the 10-second observation, and
2. moves to the next column of 10/10 and repeats the same of observing for 10 seconds and recording for 10 seconds.

Summing across the 15 time segments total equals 150 seconds of observation plus 150 seconds of recording or 300 seconds or 5 minutes of monitoring time for each monitoring session. The monitoring session can be used as often as day-to-day or at regular intervals once per week.

Two scores are derived form this monitoring instrument (Johnson, 1958): total duration and total frequency. The total duration score shows the consistency of use of the same staff behaviors; that is, the number of time blocks the same behavior occurred. The total frequency score shows the number of consecutive time blocks the

In sum, P.I.A.G.E.T. curriculum, instructional strategies, DAPs and DOCs and monitoring, as key elements, have documented the effectiveness of the P.I.A.G.E.T. Program and demonstrated these elements as vital parts of the classroom components.

Teacher Teacher Aide (circle one)
Subject _____
Date _____
Time _____
Observer _____

CLASSROOM: TEACHER/AIDE

"Systematic Observation Ratings of P.I.A.G.E.T. Teacher/Aide in Classroom Settings"

No. Obs/Record	1 10/10	2 10/10	3 10/10	4 10/10	5 10/10	6 10/10	7 10/10	8 10/10	9 10/10	10 10/10	11 10/10	12 10/10	13 10/10	14 10/10	15 10/10	TOTAL DURATION	TOTAL FREQUENCY
I. TEACHER BEHAVIOR																	
1. Absent																	
2. Unavailable																	
3. Teacher-Teacher Aide-Teaching																	
4. Teacher-Teacher Aide-Non-Teaching																	
5. Teacher - Adult Interaction																	
6. Teacher Observes Classroom																	
7. Teacher Observes Individual Child																	
8. Teacher Assesses Individual Child																	
9. Teacher Uses D.A.P.																	
10. Teacher Permits Off Task Behavior																	
11. Tchr. Uses Objects to Promote Lng.																	
12. Teacher Permits Choices of Child																	
13. Teacher Promotes Feedback Learning																	
14. Teacher Structures Play																	
15. Teacher Co-plays																	
16. Teacher Reinforces Child																	
17. Teacher Reprimands																	
18. Teacher Takes Over																	
19. Tchr. Mismatches Cogn. Level																	
20. Teacher Uses Piagetian Motivators																	
21. Teacher Encourages Inquisitiveness and Explanatory Activity																	
22. Teacher Uses Language Drill																	
23. Teacher Uses Language Substitute Patterning																	

Figure 2

Monitoring Example for P.I.A.G.E.T. Classroom Staff

Teacher Teacher Aide (circle one)
Subject _____
Date _____
Time _____
Observer _____

CLASSROOM: TEACHER/AIDE

No. Obs/Record	1 10/10	2 10/10	3 10/10	4 10/10	5 10/10	6 10/10	7 10/10	8 10/10	9 10/10	10 10/10	11 10/10	12 10/10	13 10/10	14 10/10	15 10/10	TOTAL DURATION	TOTAL FREQUENCY
I. TEACHER BEHAVIOR (continued)																	
24. Teacher Uses Replacement Drill																	
25. Teacher Uses Replacement Patterning																	
26. Teacher Uses Elaborative Language Teaching																	
27. Teacher Uses Open Inquiry Methods																	
28. Teacher Asks Closed (e.g. yes/no) Questions																	
29. Teacher Uses Convertiable Questions																	
II. CURRICULAR CONTENT																	
1. Movement																	
2. Arts/Crafts																	
3. Social Studies																	
4. Science																	
5. Reading																	
6. Language Arts																	
7. Math																	
III. SOCIAL CONTEXT																	
1. Entire Class																	
2. Group																	
3. Individual																	
IV. CHILD RESPONSE																	
1. Positive																	
2. Negative																	
3. Neutral																	

Prepared by:
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Penn State University

Figure 2 (con't.)

P.I.A.G.E.T.'s Home Component

The home component stresses three major goals (Yawkey, 1987a). They are to:

1. train parents to become a teacher of their children in home settings through partnerships between home and school,
2. increase parent's activities with their children in home settings,
3. increase parent's positive expectations and attitudes toward their children and their learning potentials.

These goals characterize the P.I.A.G.E.T. Home Component as implemented through its key elements: Home Mastery Learning Cycle, Curriculum, Home Visit Report, and Monitoring. Each of these elements are described in the following sections.

Home Mastery Learning Cycle

The Home Mastery Learning Cycle (HMLC), the first key element, describes the format for the P.I.A.G.E.T. aide who works with the parents in their homes or at other more convenient locations. The five step format, titles of the steps, and projected time allotments per steps of the HMLC appear in Figure 3 (see page 23).

In Step 1, the parent tells the P.I.A.G.E.T. aide how she used the previous week's activity with her child and identifies the settings or situations in which it was used. As the parent reports, the P.I.A.G.E.T. aide is able to tell whether it was used and determines whether it was properly used with the child. Any questions about the activity are answered . Modified from Morales-Flores (1990, p. 16) (in Morales-Flores & Yawkey, 1990), an example of Step 1 for "floating and sinking" follows:

> "The mother explains about last week's activity. She and her child had several sessions at home and also practiced the ...[activity]... at the grocery store."

In Step 2, the aide explains this week's activity and describes the teaching plan that the parent will use to teach the activity to her child. The aide uses specific action

HMLC Training Steps and Step Titles	Recommended Time Allotments
1. Step 1: "Summarizing and Reporting from the Previous Week"	5 minutes
2. Step 2: "Explaining the Current Session's Plan	10 minutes
3. Step 3: "Modeling the Plan for the Parent"	15 minutes
4. Step 4: "Modeling the Plan by the Parent"	15 minutes
5. Step 5: "Extending the Plan to Non-Home Settings"	5 minutes

Figure 3

Training Steps of the HMLC and Recommended time Segments Per Step

words (e.g., jump, pick up, color in) and puts these action words in a short teaching plan that parents can easily carry out themselves. Usually one activity with teaching plan is introduced per week. An example of Step 2 follows.

> "Help your child: (a) fill up a bowl with water, (b) find and gather a wooden block, spoon, sponge, and leaf, (c) tell whether each object will float and sink, and (d) test the child's guess and ask him/her to place the object in the bowl of water (modified from Morales-Flores, 1990, p. 16 in Morales-Flores & Yawkey, 1990)."

In Step 3, the P.I.A.G.E.T. aide shows the parent what to do and models the teaching plan for the parent. The parent watches the aide model and performs the physical actions with the words outlined in the teaching plan in Step 2.

In Step 4, the parent does and says the teaching plan she saw modeled for her in Step 2. As the parent performs the plan, misunderstandings and errors are corrected and appropriate actions are noted and reinforced.

In Step 5, the aide explains how the teaching plan for "floating and sinking" can be used with her children in settings outside the home. The parent may add other settings, and she is guided to select and use, at minimum, one additional setting other than the home in which to use the plan, e.g., "floating and sinking." Modified from Morales-Flores (1990, p. 16) (in Morales-Flores & Yawkey, 1990), an example follows.

> "The mother will be taking her son to a pond at a park nearby to provide the child with more practice in the skill."

Curriculum

The P.I.A.G.E.T. Home Curriculum (Garcia, Knieriem, Craig, Title VII Staff of Project P.I.A.G.E.T. & Yawkey, 1990) is the second key element. It contains 180 teaching plans for P.I.A.G.E.T. staff working with parents. Major characteristics of this curriculum follow (Garcia, et al., 1990):

1. The Home Curriculum matches and are cross indexed with major concepts of the Classroom Curriculum. Concepts taught by teachers and aides in the classroom are reinforced by parents in the home.
2. Each of the 180 teacning plans is formatted to the HMLC. The P.I.A.G.E.T. staff trains the parents through the HMLC to use the teaching plans.
3. The concepts in teaching plans are flexible and can be modified by the P.I.A.G.E.T. home staff and parent to match the conceptual/age levels of particular children.
4. In addition to the teaching plans used with the parents during the regular academic year, there are a number of other teaching plans that may be used by the parent in the summer months when school is not in session.

The teaching plans in the Home Curriculum, corresponding to the steps in the HMLC, are organized into several numbered sections. Together with the sections are related content, an example of a teaching plan is depicted in Figure 4 (modified from Garcia, et al., 1990, p. 1) (see page 26).

Using the Home Curriculum (Garcia, et al., 1990), the parents become directly involved with what is happening in the classroom and with their child's education through parent as "teacher" in the home and by parents reinforcing and extending concepts taught in the classroom.

Home Visitor Report

The Home Visitor Report (HVR), the third key element, is completed by the P.I.A.G.E.T. home staff and the parent. The staff using the HVR is responsible for:

Plan Number 1

1. Unit 1: Mathematics (Curriculum Area I)
2. Title: [HMLC]Step 2] "Counting in English"
3. Objective: [HMLC Step 3] Count 1-10 Objects Accurately in English
4. Procedure: [HMLC Step 4] The parent with the child:
   a. places numbers on objects 1-10 and lets the child count them.
   b. makes cookies an counts to 10 to place them in containers.
   c. does a finger play that uses counting 1-10.
5. Extension: [HMLC Step 5] Outside the home, the parent:
   a. in the car, encourages the child to count cows, horses (an animal) as they travel.
   b. in the car, play the license plate game (count all out-of-state plates).
   c. at the mall, the child counts the stores they see.

Figure 4

Example of Home Curriculum and HMLC Correspondence

1. establishing all objectives following the HMLC steps,
2. working with the parent to identify common household materials necessary for implementing the teaching plan and the HMLC with the parent,
3. writing down all comments and observations arising from the staff-parent training.

The parents are responsible for signing their name to the HVR that documents the:

1. beginning and ending of the staff-parent training,
2. training that occurred and whether they were satisfied with it.

From Morales-Flores (1990, p. 17) (in Morales-Flores & Yawkey, 1990), an example of a completed HVR for the concept of "floating and sinking" appears in Figure 5 (See page 28)..

The HVR links the school and the home because it focuses on aide-parent partnerships in learning processes and empowers the parents and their roles as primary teachers of their children in home settings.

Home Monitoring

The fourth key element, Home Monitoring, stresses evaluating and documenting the performances of the parents of young bilingual children enrolled in Project P.I.A.G.E.T. Both long term (i.e., summative evaluation) and week-to-week and month-to-month (i.e., formative evaluation) document the impact of the Home Component.

Parent's Monitoring (Summative). There are two different types of pre-post monitoring completed with parents. These summative forms are the Alpern-Boll

FOR AIDES WORKING WITH PARENTS OF THREE YEAR OLDS

Home Visit Report (HVR)[1, 2]

Child's Name _____ Address _____ Phone _____

Parent's Name _____ School _____

Date _____ Home Visitor _____

Objectives of Visit Objectives of Visit	Materials/Areas Covered	Comment/Observations/Evaluation of Visit
1. To summarize last last week's activity	1. big bowl with water, a leaf a wooden spoon, a sponge (Other objects, suitable for the activity, available at the house).	1. Ms. Rivera did the activity three times.
2. To review objectives for this week's activity.		2. She seemed to understand the new activity's objectives.
3. To model the activity using the parent as child.		3. Ms. Rivera was being distracted by TV show. I asked her to please turn off the TV set while we modeled.
4. To have the parent model the activity with me as child.		4. Good job of modeling the activity; use of questioning reviewed for the parent.
5. To extend the activity to other settings and locations.	5. at Aunt Lucy's house, at the nearby pond, with modifications	5. She came up with very good ideas for extending the activity from home to home-related settings.
6. To review and answer questions.		6. Said she would try them with Mick.

To Be Filled in by the Parent

Time of Arrival _____ Time of Departure _____

Parent's signature _____

[1]HVR (1981) developed by the P.I.A.G.E.T. Program, Bethlehem Area School District, Bethlehem, PA and The Pennsylvania State University, University Park, PA.

[2]HVR examples written by: Juan R. Morales-Flores, Early Childhood Teacher and Graduate Assistant for P.I.A.G.E.T. Program, Fall, 1989.

Figure 5
Example of a Completed HVR for the "Floating and Sinking" Concept

Developmental Profile (ABDP) and the Yawkey Test for Bilingual Parent's Routines with Their Children (YTBR).

The ABDP is a normed developmental profile which is given to parents concerning their children's growth levels. It is published and marketed by Psychological Development Publications. Reliability and validity coefficients and descriptive information on the normed populations are found in the extensive manual to the test. The test contains five sub-batteries -- each one corresponding to a critical area of the child's development: physical age, self-help age, social age, academic age, and communication age. The parents are asked questions about their child's development in each of these areas. The questions are very specific, reflect whether her child could or could not perform identified behaviors at particular ages, and determine the parent's perceptions of her child's growth. After the behavioral statements are read, the parent indicates whether or not her child has mastered it. If the parent perceives that the child does the behavioral action, the child is credited with "passing" it. If the parent says that her youngster cannot perform the action, the child is credited with "failing" it (and awarded no growth points). Each of the items that are "passed" is worth either "two" or "four" growth months; the months are summed per critical developmental area. The resulting total in each of the five critical developmental areas approximates the parent's perception and expectancies of her child's growth in that area in years and months. In turn, these data are used to calculate differential growth areas for each child. The total administrative time per setting is two hours or 120 minutes.

The YTBR was another instrument developed under a grant to this Principal Investigator from the Patton Foundation. Used in Project P.I.A.G.E.T., it evaluates the quality and quantity of parent routines completed with children in home and

community settings. Reliability statistics on the YTBR range from .85 to .89 depending on year of administration. There are 50 questions focusing on the things that parents and children do together -- e.g., "You read your child story books at home." The parent is asked to mark whether she does this routine "always," "regularly," "sometimes," or "never" with her child. The parent is then required to choose one of the four forced choice responses. The range of points per parent is 50 to 200 with each of the 50 items scored using one point (for "never"), two points (for "sometimes"), three points (for "regularly"), and four points (for "always") based on Likert scaling. For one administration, the total time is 60 minutes.

Aide/Parent and Parent/Child Monitoring (Formative). For week-to-week and month-to-month monitoring in the Home Component, two formative observation techniques are used: Aide with Parent (Johnson, 1985a) and Parent with Child Systematic Observations (Johnson, 1985b).

Monitoring using the Aide with Parent (Johnson, 1985a) instrument, assesses the quality and quantity of interaction between the P.I.A.G.E.T. aide and parent. It also checks on the implementation of the HMLC. In Figure 6, is an example of this particular monitoring instrument.

Monitoring with the Parent with Child (Johnson, 1985b) instrument, shows what the parent does with the child in a home learning setting. In addition, this monitoring instrument documents the parent's use of the teaching plans with the child and evaluates the impacts of the aide's training of the parents. Figure 7 shows an example of this instrument (see pages 31 to 33).

Both of these formative home monitoring instruments are scored in exactly the same way as the systematic observation instrument used in the

Setting _____
Parent Aide _____
Parent _____
Date _____
Time _____
Observer _____

HOME: AIDE/PARENT

"Systematic Observation Ratings of P.I.A.G.E.T. Aide with Parent In Home Settings"

No. Obs. Record	1 10/10	2 10/10	3 10/10	4 10/10	5 10/10	6 10/10	7 10/10	8 10/10	9 10/10	10 10/10	11 10/10	12 10/10	13 10/10	14 10/10	15 10/10	TOTAL DURATION	TOTAL FREQUENCY
I. PARENT/AIDE BEHAVIOR																	
1. Reinforces																	
2. Reprimanding																	
3. Condescending																	
4. Highly Directive																	
5. Complaining																	
6. Inattentive																	
II. PARENT/AIDE BEHAVIOR																	
1. Corrects																	
2. Off Task																	
3. Uses IIVR																	
4. Uses Gaming Strategies																	
5. Uses Concrete Materials																	
6. Gives Parents Choices																	
7. Promotes Feedback Learning																	
8. Informs																	
9. Gives Concrete Examples																	
10. Incomplete Communicative Acts																	
11. Seeks Self Feedback																	
12. Demonstrates																	
13. Uses Open Questions																	
14. Encourages Parent to Use Open Questions																	
15. Uses Prospection with Parents																	
16. Uses Construction Probes																	
17. Uses Hypothetical Strategies																	

Figure 6
Monitoring Example for P.I.A.G.E.T. Aide With Parent

Setting _____
Parent Aide _____
Parent _____
Date _____
Time _____ _____
Observer _____

HOME: AIDE/PARENT

"Systematic Observation Ratings of P.I.A.G.E.T. Aide with Parent in Home Settings"

No. Obs. Record	1 10/10	2 10/10	3 10/10	4 10/10	5 10/10	6 10/10	7 10/10	8 10/10	9 10/10	10 10/10	11 10/10	12 10/10	13 10/10	14 10/10	15 10/10	TOTAL DURATION	TOTAL FREQUENCY
III. PARENT/AIDE BEHAVIOR																	
1. Asks Parents to Summarize																	
2. Explains Objectives																	
3. Describes Play Routine																	
4. Engages Parent in Role Playing																	
5. Engages Parent in Extending Play Routines																	

Figure 6 (con't.)

Prepared by: Dr. James E. Johnson, Penn State University

Setting _____
Parent _____
Child _____
Date _____
Time _____
Observer _____

HOME: PARENT/CHILD

"Systematic Observation Ratings o
Parent With Child In Home Setting

No. Obs.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL DURATION	TOTAL FREQUENCY
Record	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10	10/10		
I. SOCIAL BEHAVIOR																	
1. Praises																	
2. Disapproves with specific feedback																	
3. Disapproves with feedback																	
4. Reprimands																	
5. Uses Piagetian Motivators																	
6. Bosses																	
7. Inattentive																	
8. Structures Play																	
9. Co-Plays																	
10. Displays Physical Affection																	
II. INSTRUCTIONAL BEHAVIOR																	
1. Mismatches cognitive level																	
2. Encourages inquisitiveness and exploratory activity																	
3. Instructional take-over																	
4. Permits off task behavior																	
5. Uses concrete objects																	
6. Permits choices by child																	
7. Promotes feedback																	
8. Asks open questions																	
9. Asks yes/no questions																	
10. Promotes constructive play																	
11. Uses nonverifiable questions																	
12. Uses directives																	
13. Uses modeling																	
III. CHILD RESPONSE																	
1. Attentive																	
2. Acts Independently																	
3. Distracted																	
4. Rejecting																	

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Figure 7

Monitoring Example for Parent Working with the Child

classroom with teacher and aide. (See the description for scoring of these instruments in Staff's Monitoring section of this paper.)

Summary

The P.I.A.G.E.T. Classroom and Home Programs are dynamic and usable as documented by its regional targeted adoptions and in selected nationwide agencies across the United States. Based on theoretical assumptions of Piaget and its own research studies to determine its impacts, the Classroom and Home Components of the program impact significantly both young children's English language and conceptual growth and their parent's expectations and attitudes toward their children.

The key elements of the Classroom Component consist of curriculum, instructional strategies used by the staff, Daily Activity Plans, and Daily Observation Cards and Monitoring. The key elements of the Home Component are Home Mastery Learning Cycle, Curriculum, Home Visit Report and Monitoring.

Working in conjunction with each other, the Classroom and Home Components bridge school and home and show how both institutions, school and family, can ultimately impact the young child.

Impact Results

The following results from the P.I.A.G.E.T. Classroom and Home Components are grouped into results at parent and then adoption sites. These results from parent and adoption sites follow.

Parent Site Results

The parent site is located in the Bethlehem Area School District, Bethlehem, Pennsylvania. Across P.I.A.G.E.T. Classroom and Home Programs, the results by year for both young limited English proficient (LEPs) children and their parents appear in the following tables.

For the P.I.A.G.E.T. Classroom component, the major dependent measures are the: (a) Preschool Kindergarten Bilingual Inventory (PKBI) (1987) and Peabody Picture Vocabulary Test (PPVT) (Dunn, 1987). In the P.I.A.G.E.T. Home Component, the primary dependent measures are the: (a) Developmental Profile II (ABDP) (Alpern, Boll & Shearer, 1989) and (b) Yawkey Test for Parent Bilingual Routines (Yawkey, 1986).

1987-1988 Results. For P.I.A.G.E.T. versus comparison group LEPs, the results follow.

TABLE 3[1]

1987-1988 PKBI Results Showing Means, Standard Deviations, and Tests for P.I.A.G.E.T. Versus Comparison Group LEPs

Sub-Batteries	P.I.A.G.E.T. LEPs (N=19) Pre	P.I.A.G.E.T. LEPs (N=19) Post	Comparison Group LEPs (N=17) Pre	Comparison Group LEPs (N=17) Post	F Test (Within Groups)
Social Awareness $\bar{X}$s	16.1	21.2	8.3	12.4	F= 57
Standard Deviations	4.2	1.7	5.2	4.8	p= .45*
Visual Auditory $\bar{X}$s	8.4	8.8	6.8	7.9	F= 1.7
Standard Deviations	.7	.4	2.2	2.0	p= .2*
Visual Motor $\bar{X}$s	9.5	10.5	10.5	10.4	F= 11.1
Standard Deviations	1.2	.5	.5	.6	p= .002***
Language $\bar{X}$s	3.2	4.3	.8	1.6	F= 2
Standard Deviations	1.0	1.6	1.7	1.8	p= .69*
Perceptual Motor $\bar{X}$s	3.7	25.9	2.4	4.0	F= 148.8
Standard Deviations	3.4	5.5	.9	4.1	p=.0001*****
Grand Total $\bar{X}$s	40.9	70.7	28.7	36.2	F= 77.0
Standard Deviations	7.2	7.9	8.2	9.9	p= .0001*****

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*$p > .05$ (not significant)
**$p < .05$
***$p < .01$
****$p < .001$
*****$p < .0001$

The results show that P.I.A.G.E.T. children yielded significantly higher scores than comparison group LEPs at post test time on PKBI visual motor and perceptual motor subbatteries. The Kuder-Richardson 21 reliability coefficient for post tests on P.I.A.G.E.T. LEPs yielded .73. In 1987-1988, PPVT pretests but no posttests were administered thus making similar analyses impossible.

For P.I.A.G.E.T. versus comparison group bilingual parents, these results follow for the Alpern-Boll Developmental Profile (ABDP) and Yawkey Test for Parent Bilingual Routines (YTBR).

TABLE 4[1]

1987-1988 ABDP Results Showing Means Standard Deviations and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

Sub-Batteries	P.I.A.G.E.T. Parents (N=17) Pre	P.I.A.G.E.T. Parents (N=17) Post	Comparison Group Parents (N=15) Pre	Comparison Group Parents (N=15) Post	F Test (Within Groups)
Physical Age $\bar{X}$s Standard Deviations	79.2 14.1	81.9 16.7	60.8 9.8	84.9 14.1	F= 11.24 p= .002***
Self Help Age $\bar{X}$s Standard Deviations	76.4 13.5	81.3 9.7	66.3 14.3	79.5 9.6	F= 3.01 p= .09*
Social Age $\bar{X}$s Standard Deviations	72.9 9.5	76.0 7.5	59.6 8.9	74.3 5.4	F= 9.46 p= .004***
Academic Age $\bar{X}$s Standard Deviations	68.4 9.5	80.7 9.5	57.2 10.4	71.2 7.1	F= 22 p= .64*
Communication Age $\bar{X}$s Standard Deviations	68.4 9.2	75.3 8.1	57.0 11.2	74.5 8.9	F= 5.93 p= .01***
Mean Growth Age $\bar{X}$s Standard Deviations	73.9 9.8	79.5 7.2	60.1 8.7	77.1 5.4	F= 12.72 p= .001****
Equivalency Age $\bar{X}$s Standard Deviations	95.9 12.9	111.4 13.2	78.4 12.0	95.9 11.2	F= 26 p= .61*
Grand Total $\bar{X}$s Standard Deviations	535.1 60.4	586.1 50.3	439.3 62.1	557.5 39.3	F= 10.6 p= .003***

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

* $p > .05$ (not significant)
** $p < .05$
*** $p < .01$
**** $p < .001$
***** $p < .0001$

For the ABDP, the results indicate that P.I.A.G.E.T. compared to comparison group parents at post test time yielded significantly greater positive total perceptions of their children's performance and toward their activities in school and home. In addition, P.I.A.G.E.T. parents compared to comparison group parents had significantly higher positive perceptions of their children's physical achievements as well as social and communication achievements. In addition, P.I.A.G.E.T. parents thought their children yielded significantly greater mean growth at post test time than did comparison group parents.

TABLE 5[1]

1987-1988 YTBR Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

	P.I.A.G.E.T. Parents (N=15)		Comparison Group Parents (N=16)		F Test (Within Groups)
	Pre	Post	Pre	Post	
Total Scores $\bar{X}$s	126.	141.9	126.5	139.9	F= .32
Standard Deviations	16.2	17.4	13.6	17.9	p= .58*

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*p > .05 (not significant)

It appears that P.I.A.G.E.T. parents did not differ significantly on the YTBR showing the number of activities that they did and completed at post test time with their children. Each group of parents at post test time performed activities with their children such as going to the park read together with their children in home and neighborhood settings. However, the F results for between subjects showed that P.I.A.G.E.T. parents did a significantly (p < .05) greater number of activities with their children than comparison group parents. Cronbach's Alpha Coefficient on P.I.A.G.E.T. parents post test scores yielded .86.

1988-1989 Results. The results for P.I.A.G.E.T. and comparison group children appear in the following tables.

TABLE 6[1]

1988-1989 PKBI Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group LEPs

Sub-Batteries	P I A G E T LEPs (N=10) Pre	Post	Comparison Group LEPs (N=12) Pre	Post	F Test (Within Groups)
Social Awareness $\bar{X}$s Standard Deviations	16.6 2.9	21.8 .9	15.7 3.5	21. 1.9	F= .01 p= .90*
Visual Auditory $\bar{X}$s Standard Deviations	8. 1.1	8.9 .3	7.3 1.4	8.8 .5	F= .8 p= .37*
Visual Motor $\bar{X}$s Standard Deviations	9.6 1.6	10.8 1.	7.4 2.1	10.4 .9	F= 3.6 p= .07*
Language $\bar{X}$s Standard Deviations	5.5 1.9	7. .0	4.1 1.6	6.1 .7	F= .52 p= .48*
Perceptual $\bar{X}$s Standard Deviations	1.4 2.2	19.3 10.	4.5 9.2	16.3 11.	F= 2.3 p=.15*
Grand Total $\bar{X}$s Standard Deviations	41.1 7.09	67.8 10.2	29. 13.	62.5 11.9	F= 124.8 p= .48*

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*p > .05 (not significant)

P.I.A.G.E.T. compared to comparison group LEPs did not differ significantly from each other at post test time for PKBI total score as well as PKBI scores for social awareness, visual auditory, visual motor, language, and perceptual motor. Nonetheless, the F results for between subjects showed that P.I.A.G.E.T. children differed significantly (p >.0001) from comparison group children on PKBI total as well as all subbattery scores. Kuder Richardson 21 reliability coefficient for P.I.A.G.E.T. post test scores was .82.

TABLE 7[1]

1988-1989 PPVT Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group LEPs

Sections	P.I.A.G.E.T. LEPs (N=18)		Comparison Group LEPs (N=25)		F Test (Within Groups)
	Pre	Post	Pre	Post	
$\bar{X}$ Mental Age Standard Deviations	50.3 55.3	51.8 15.1	36.6 11.4	48.9 13.1	F = .82 p = .37*
$\bar{X}$ Raw Score Standard Deviations	28.3 42.2	10.9 10.	27.2 12.2	40.4 9.2	F = .06 p = .80*

[1] F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

* $p > .05$ (not significant)

There were no significant differences between P.I.A.G.E.T. children and those in the comparison group at post test time on PPVT mental age and raw score measures. Using PPVT raw scores at post test time, the Kuder Richardson 21 reliability for P.I.A.G.E.T. children was .67.

The results for the P.I.A.G.E.T. parents appear in the following tables.

TABLE 8 [1,2]

1988-1989 ABDP Results Showing Means Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

Sub-Batteries	P.I.A.G.E.T. Parents (N=11) Pre	P.I.A.G.E.T. Parents (N=11) Post	Comparison Group Parents (N=16) Pre	Comparison Group Parents (N=16) Post	F Test (Within Groups)
Physical Age $\bar{X}$s Standard Deviations	81.3 16.2	82.4 4.2	65. 17.6	88. 13.9	F= 12.24 p=.001****
Self Help Age $\bar{X}$s Standard Deviations	73.3 11.6	79.9 5.2	70. 11.3	80.8 8.4	F= 2.02 p= .16*
Social Age $\bar{X}$s Standard Deviations	74.0 7.2	76.2 1.	58.3 13.	72.5 6.7	F= 7.33 p= .01***
Academic Age $\bar{X}$s Standard Deviations	68.2 11.1	80.6 3.7	57. 11.9	75.3 11.	F= 1.11 p= .30*
Communication Age $\bar{X}$s Standard Deviations	71.5 9.8	76.2 2.9	54.8 8.5	77.6 7.9	F= 21.7 p=.0001*****
Mean Growth Age $\bar{X}$s Standard Deviations	73.6 8.8	79.4 3.6	60.9 10.5	78.9 7.5	F= 10.33 p= .004***
Equivalency Age $\bar{X}$s Standard Deviations	92.3 16.	109.1 9.7	94.2 20.9	104.8 23.6	F= .72 p= .40*
Grand Total $\bar{X}$s Standard Deviation	534.1 65.9	583.9 25.8	460.1 72.8	577.8 60.8	F= 5.59 p= .02**

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

[2]1988-1989 ABDP post test data was predicted from 1987-1988 ABDP data through regression analyses run by Ms. Virginia Moreno.

*p > .05 (not significant)
**p < .05
***p < .01
****p < .001
*****p < .0001

These results indicate that P.I.A.G.E.T parents showed significantly higher performance at post test time compared to comparison group parents at the same time period on ABDP for total positive perceptions of their children's activities and performance. In addition, P.I.A.G.E.T. parents had significantly higher positive perceptions and attitudes, toward their children's social age, communication age and mean growth age.

TABLE 9[1,2]

1988-1989 YTBR Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

	P.I.A.G.E.T. Parents (N=11)		Comparison Group Parents (N=16)		F Test (Within Groups)
	Pre	Post	Pre	Post	
Total Scores $\bar{X}$s	130.5	145.4	133.8	129.8	F= 14.47
Standard Deviations	22.5	17.7	18.8	19.1	p= .0008****

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

[2]1988-1989 YTBR post test data was predicted from 1987-1988 YTBR data through regression analyses run by Ms. Virginia Moreno.

****p > .001

For the YTBR, the P.I.A.G.E.T. parents performed a significantly greater number of activities with their children at post test time than did comparison group parents at the same time period.

1989 1990 Results. Results of the P.I.A.G.E.T. Classroom and Home Programs appear in the following tables.

TABLE 10[1].

1989-1990 PKBI Results Showing Means, Standard Deviations, and Tests for P.I.A.G.E.T. Versus Comparison Group LEPs

Sub-Batteries	P.I.A.G.E.T. LEPs (N=15)		Comparison Group LEPs (N=13)		F Test (Within Groups)
	Pre	Post	Pre	Post	
Social Awareness $\bar{X}$s	16.9	22.3	16.3	20.9	F= 1.46
Standard Deviations	4.3	1.7	3.9	2.6	p= .24*
Visual Auditory $\bar{X}$s	6.7	11.6	7.2	10.2	F= 2.34
Standard Deviations	2.3	1.3	2.6	2.7	p= .14
Visual Motor $\bar{X}$s	10.9	12.1	12.2	12.6	F= .36
Standard Deviations	4.2	1.2	3.4	.7	p= .55*
Language $\bar{X}$s	6.8	5.7	4.2	4.9	F= 1.22
Standard Deviations	5.9	.6	2.2	1.6	p= .28*
Perceptual Motor $\bar{X}$s	9.3	23.5	9.8	19.5	F= 1.03
Standard Deviations	8.9	9.7	9.	12.2	p=.32*
Grand Total $\bar{X}$s	50.6	19.6	50.2	68.2	F= 1.12
Standard Deviations	75.2	12.3	14.7	18.	p= .3*

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*p > .05 (not significant)

For the within group analyses, the results show no significant differences at post test time between P.I.A.G.E.T. LEPs and comparison group LEPs on PKBI total and subbatteries' scores. However, for the between groups' analyses, the results show that P.I.A.G.E.T. LEPs yielded significantly higher post than pre test scores compared to the comparison group LEPs. These significant ($p < .0001$) results of the between groups' analyses were consistent for PKBI total score as well as each of the scores on the PKBI subbatteries. The Kuder Richardson 21 reliability coefficient computed on P.I.A.G.E.T. LEPs post scores yielded a coefficient of .90.

TABLE 11[1]

1989-1990 PPVT Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group LEPs

Sections	P.I.A.G.E.T. LEPs (N=16)		Comparison Group LEPs (N=15)		F Test (Within Groups)
	Pre	Post	Pre	Post	
Raw Score $\bar{X}$s	27.6	42.4	26.6	12.3	F= 1.24
Standard Deviations	10.4	14.1	37.5	9.5	p= .28*

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*$p > .05$ (not significant)

Between P.I.A.G.E.T. and comparison group LEPs at post test time, the results showed no significant difference based on the within groups' analyses. The results of the analyses for between groups, however, indicated that the P.I.A.G.E.T. LEPs received significantly higher post PPVT raw scores than the LEPs in the comparison group. Using PPVT raw scores at post test time, the Kuder Richardson 21 reliability for P.I.A.G.E.T. children was .84.

For P.I.A.G.E.T. versus comparison group bilingual parents, the results for the ABDP and YTBR appear in the following tables.

TABLE 12[1]

1989-1990 ABDP Results Showing Means Standard Deviations and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

Sub-Batteries	P.I.A.G.E.T. Parents (N=17) Pre	P.I.A.G.E.T. Parents (N=17) Post	Comparison Group Parents (N=16) Pre	Comparison Group Parents (N=16) Post	F Test (Within Groups)
Physical Age $\bar{X}$s Standard Deviations	60.1 9.1	75.8 12.9	70. 12.1	74.5 12.9	F= 4.12 p= .05**
Self Help Age $\bar{X}$s Standard Deviations	68.6 8.2	78.1 10.8	71.1 6.1	80.4 6.4	F= .0 p= .98*
Social Age $\bar{X}$s Standard Deviations	61.3 8.9	70.6 11.4	64.4 8.	72.3 7.2	F= .16 p= .69
Academic Age $\bar{X}$s Standard Deviations	58.4 6.3	85.4 10.3	64.5 8.9	78. 8.4	F= 35.36 p= .0001*****
Communication Age $\bar{X}$s Standard Deviations	60.1 8.2	77.9 7.6	62.5 10.	86.9 7.	F= .25 p= .62
Equivalency Age $\bar{X}$s Standard Deviations	86.4 6.9	82.2 8.7	87.1 6.7	86.9 7.	F= 1.05 p= .31
Grand Total $\bar{X}$s Standard Deviations	394.9 34.1	469.9 33.2	419.6 33.2	463.5 38.2	F= 5.65 p= .02**

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

*p > .05 (not significant)
**p < .05
*****p < .0001

These ABDP data show that P.I.A.G.E.T. parent's perceptions of their children's total growth and development at post test time were significantly higher than the comparison group parent's perceptions of their children's development in school at the same time period. In addition, P.I.A.G.E.T. parents had significantly higher perceptions of their children's physical age and academic age development than comparison group parents at post test time. Furthermore, the between groups' results show that P.I.A.G.E.T. parent's perceptions of their children's development and growth were significantly higher than comparison group parents between pre and post tests over nearly a 10-month period of the school year.

TABLE 13[1]

1989-1990 YTBR Results Showing Means, Standard Deviations, and F Tests for P.I.A.G.E.T. Versus Comparison Group Parents

	P.I.A.G.E.T. Parents (N=16)		Comparison Group Parents (N=17)		F Test (Within Groups)
	Pre	Post	Pre	Post	
Total Scores $\bar{X}$s	143.19	155.1	169.4	162.1	F= 4.64
Standard Deviations	19.4	25.9	18.7	22.9	p= .04**

[1]F test statistics using SAS package were run by Ms. Virginia Moreno, Ph.D. Candidate, Program in Educational Psychology, The Pennsylvania State University, Summer 1991.

**$p < .05$

The YTBR results show that P.I.A.G.E.T. parents at post test time showed significantly higher number of activities completed and accomplished with their children in home settings at post test time relative to the comparison group parents at the same time period. P.I.A.G.E.T increased involvement with their children at post test time compared to comparison group parents and children's interactions and activities in home, neighborhood and community settings. Cronbach's Alpha Coefficient for P.I.A.G.E.T. parents post test scores was .96.

Adoption Site Results

From 1987-1990, the following school agencies signed adoption agreements for a three year period with P.I.A.G.E.T. Programs. The following table shows the agency's name, number of sites and data status.

TABLE 14

Adoption Sites

Adoption Years in Cycle 1	Agency's Name	Number of Sites or Classrooms (Excluding Parent Site)	Data Status
1. 1987 - 1989	Portland Public Schools, Portland, Maine	2	Impact Data Completed and Analyzed
2. 1988 - 1990	Grand Rapids Public Schools, Grand Rapids, Michigan	1	Impact Data Completed and Analyzed
3. 1988 - 1990	Holy Infancy Parochical School, Bethlehem, Pennsylvania	2	Variable and No Analyses Possible
4. 1989 - 1990	Tacoma Public Schools, Tacoma, Washington	2	P.I.A.G.E.T. Classroom and Home Program-Late Start-Up in February -- No Data Gathered
5. 1989 - 1990	Commonwealth of Pennsylvania Migrant Child Development Programs, Gettysburg, Pennsylvania	1	Impact Data Completed and Analyzed

Results of data analyses by agency appear in the following tables. All analyses across adoption agencies were pre and post tests for children and parents.

Portland (ME) Public Schools. The data results from Portland Public Schools, Portland, Maine appear by year for P.I.A.G.E.T. LEPs and their parents.

TABLE 15

Portland, Maine P.I.A.G.E.T. LEP Child and Parent
Summaries of Significant Results

1. Name of Adopting Agency: Portland (ME) Public Schools
   (a) Name of P.I.A.G.E.T. Adoption Director: Mrs. Grayce Studley
   (b) Number of years in Cycle 1 Academic Excellence as P.I.A.G.E.T. Adoption: 2 Years (1987 - 1989)

Child Measures (Three and Four Year Olds):	YR: 88/89[a] t statistic	YR: 88/89[b] t statistic
PPVT:		
1. Three Year Olds	(N=19) 3.93***	(N=16) 21.29*
2. Four Year Olds	(N=11) 9.27***	(N=12) 17.36*
General Inventory Test (similar to PKBI):		(Wilcoxon Signed Ranks statistic)
Conceptual skills subbattery		
1. Three Year Olds	(N=13) 2.44*	(N=15) 5.00***
2. Four Year Olds	(N=17) 6.48***	(N=15) 3.36***
Number perceptual motor Subbattery		
1. Three Year Olds	(N=13) 2.44*	(N=15) 5.03***
2. Four Year Olds	(N=17) 6.83***	(N=15) 3.71***
Social/emotional awarer subbattery		
1. Three Year Olds	(N=13) 5.69***	(N=15) 4.27***
2. Four Year Olds	(N=17) 6.30***	(N=15) 5.06***

[a]From Devito, P. & Zusman, R.S. (1988). "Test Data From the Final Evaluation Report, 1987-1988" Mimeographed Portland (ME) Public Schools.

[b]From Studley, G. (1989). "Test Data Report."

Parent Measures

Results of parent's survey and questionnaire data show increased positive attitudes toward their children's learning and schooling processes.	Results of parent's survey and questionnaire data show increased positive attitudes toward their children's learning and schooling processes.

* < .05
** < .01
*** < .001
N.S.> .05

LEPs in the P.I.A.G.E.T. program at post compared to pre test scores on the PPVT yielded a significantly higher mental age score. This finding is supported across the two years of adoption.

In addition, results of the post test from the General Inventory showed that P.I.A.G.E.T. LEPs increased significantly their scores on post compared to pretest measures for conceptual skill, perceptual motor and social/emotional awareness development. This finding is consistent across the two years of P.I.A.G.E.T. adoption.

Across adoption years, 1987-1988 and 1988-1989, and for parents, surveys and questionnaires are administered. Across both adoption years, parents reported increasingly positive attitudes toward their children's learning and toward schooling processes. Parents increased the number of times they volunteered at school and reported increases in the number of times they read books to their children.

Grand Rapid (MI) Public Schools. The data findings on P.I.A.G.E.T. LEPs and parents for Grand Rapids Public Schools, Division of Community Education Program in Grand Rapids, Michigan follow on the table below.

TABLE 16

Grand Rapids, Michigan P.I.A.G.E.T. LEP Child and Parent Summaries of Significant

1. Name of Adopting Agency: Grand Rapids (MI) Public Schools
   (a) Name of P.I.A.G.E.T. Adoption Director: Ms. Pat Caterino
   (b) Number of years as P.I.A.G.E.T. Adoption: 2 year (1988 - 1990)

Child Measures (Three and Four Year Olds):	YR: 88/89[a] t statistic	YR 89/90[b] t statistic
PKBI:		
Total composite	(N=11) 18.18***	(N=10) 11.54, p= .0001****
Social awareness subbattery	(N=11) 2.82**	(N=10) 7.61, p= .0001****
Visual auditory subbattery	(N=11) 5.36***	(N=10) 5.38, p= .0004***
Visual motor subbattery	(N=11) 5.09***	(N=10) 7.94, p= .0001****

Table 16 (con't)

Perceptual motor	(N=11) .55*	(N=10) 7.36, p= .0001****
Language articulation	(N=11) 4.36**	(N=10) 11.76, p= .0001****

Assessing Children for Early Prescriptive Teaching Test:		PPVT:	
Total composite	(N=8) 52.75***	Mental age	(N=10) 5.90, p=.0002***
Conceptual/cognitive subbattery	(N=8) 20.86	Raw score	(N=10) 4.75, p=.0007***
Number/perceptual motor subbattery	(N=8) 14.75		
Social/emotional language awareness subbattery	(N=8) 17.13		

[a]From Morales, J. (1989). "Test Data/Grand Rapids." Pennsylvania State University

[b]From Petrykowski, J. (1991). "Test Data Report"

Parent Measures

ABDP:[b]		ABDP:
Physical age subbattery	(N=7) 2.41*	(N=8) 4.97, p= .002**
Self help age subbattery	(N=7) 2.56*	(N=8) 2.33, p= .05*
Social age subbattery	(N=7) 4.50**	(N=8) 0., p= 1. (N.S.)
Academic age subbattery	(N=7) 2.14 (N.S.)	(N=8) .21, p= .84 (N.S.)
Communication age subbattery	(N=7) 2.21 (N.S.)	(N=8) .82, p= .44 (N.S.)
Grand total age score	(N=7) 3.06*	(N=8) 2.04, p=.08 (N.S.)
YTBR:		YTBR:
Data available on only three parents. Parametric statistics unable to be run.		(N=6) -.31, p= .77(N.S.)

* < .05
** < .01
*** < .001
**** < .0001
N.S.> .05

P.I.A.G.E.T. LEPs on post compared to pre test PKBI measures significantly increased their performance on total and subbattery scores. Across 1988-1989 and 1990-1991, these increases for subbatteries included the developmental areas of social awareness, visual auditory, visual motor, perceptual motor, and language growth. In addition, and in 1988-1989 on the test for Assessing Children for Early Prescriptive Teaching, the P.I.A.G.E.T. LEPs yielded significantly higher post compared to pretest scores for total developmental growth as well as for conceptual/cognitive, number/perceptual

motor and social/emotional/language awareness growth. Finally, for 1989-1990. P.I.A.G.E.T. LEPs on post versus pre test PPVT mean age and raw scores significantly increased their receptive language communication.

P.I.A.G.E.T. parents, in 1988-1989 when post test ABDP scores are compared to pretest ABDP scores, significantly increased their positive perceptions toward children's learning and their educational views of young children. In 1989-19990, P.I.A.G.E.T. parents ABDP and YTBR test scores did not differ significantly from the ABDP and YTBR pre test scores, respectively.

Migrant (PA) Child Development Programs. The Commonwealth of Pennsylvania Migrant Child Development Programs adopted P.I.A.G.E.T. in 1989. The results of these data analyses of P.I.A.G.E.T. LEPs and their parents appear in the following table.

TABLE 17

Commonwealth of Pennsylvania Migrant Child Development LEP and Parent Summaries of Significant Results

1. Name of Adopting Agency: Commonwealth of Pennsylvania Migrant Child Development Programs, Gettysburg (PA)
   (a) Name of P.I.A.G.E.T. Adoption Director: Mr. Parker Coble
   (b) Number of years as P.I.A.G.E.T. Adoption: 1 year (1989 - 1990)

Child Measures (Three to Five Year Olds):	YR: 89/90[a] t statistic
PKBI:	
Social awareness subbattery	(N=16) 6.15, p = .0001****
Visual auditory subbattery	(N=16) 4.78, p = .0002***
Visual motor subbattery	(N=16) 6.27, p = .0001****
Language subbattery	(N=16) 2.67, p = .02*
Perceptual motor subbattery	(N=16) 3.74, p = .002**
Grand Total score	(N=16) 12.75, p = .0001****
PPVT:	
Mental age score	(N=14) 5.87, p = .0001****
Raw score	(N=14) 5.49, p = .0001****

Parent Measures (see page 50)

TABLE 17 (con't)

ABDP:		
Physical age subbattery	(N=13)	1.18, p = .26 (N.S.)
Self help age subbattery	(N=13)	.61, p = .55 (N.S.)
Social age subbattery	(N=13)	3.09, p = .009**
Academic age subbattery	(N=13)	2.42, p = .07*
Communication age subbattery	(N=13)	1.82, p=.10 (N.S.)
Grand total age score	(N=13)	4.73, p=.0005***
YTBR:		
Total score	(N=13)	1.10, p = .29*

[a]From Petrykowski, J. (1991). "Test Data Report."

* < .05
** < .01
*** < .001
**** < .0001
N.S.> .05

P.I.A.G.E.T. LEPs scored significantly higher on PKBI total battery post scores compared to pre test scores as well as on PKBI subbatteries of social awareness, visual auditory, visual motor, and motor performances. In addition, P.I.A.G.E.T. LEPs scored significantly higher on PPVT mental age and raw post test scores compared to pre test scores.

P.I.A.G.E.T. parents had significantly greater positive perceptions of their children's growth on post compared to pre test scores for ABDP overall total age developmental scores as well as social age growth scores. On the YTBR post compared to pre test scores, there were no significant difference reported on the number of activities parents reported with their children.

Summary

The impact results for parent site and adoption sites show relative consistency across years within parent site and between parent site and adoption sites. Of significant import was the utility of the PKBI to assess LEPs English language communication concepts and evaluate the validity of the

P.I.A.G.E.T. program. The PPVT test was another measure for LEPs that was particularly effective in measuring English language receptivity and the effects of the P.I.A.G.E.T. program.

For impacts on LEP children's parents, the ABDP was particularly consistent across the three years of P.I.A.G.E.T. program at the parent site and across the adoption sites. However, the results on the YTBR seemed to be somewhat inconsistent in determining P.I.A.G.E.T. parent program impacts on type of home activities used by the parents with their children.

Results from parent and adoption sites across LEP child and parent measures support the program validity of the P.I.A.G.E.T. program.

1987 - 1990 Management Evaluation[1]

Management evaluation of 1987 - 1990 P.I.A.G.E.T. is included in this report in the following four sections: (a) 1987-1990 Evaluation of Performance Objectives, (b) 1987-1990 P.I.A.G.E.T. Training and Awareness Presentations, (c) 1987-1990 Participant Evaluations of P.I.A.G.E.T. Training and Awareness Presentations, and (d) Anecdotal Reports from P.I.A.G.E.T.Adoption Staff.1987 - 1990 P.I.A.G.E.T. Presentations' Instrument for Evaluations

During 1987- 1990, many presentations were made by P.I.A.G..E.T. staff. These presentations are of two types: awareness and training. The evaluation instruments used to assess presenters performance appears below.

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[1] Janusz Petrykowski, Ph.D. Candidate in Early Childhood Education, The Pennsylvania State University wrote major portions of this section, "1989-1990 Management Evaluation."

TABLE 18

Project P.I.A.G.E.T. Dissemination: Presentations

P.I.A.G.E.T. PRESENTATIONS/EVALUATION FORM

Location: _____
Date: _____
Presentation/Workshop Number (Please circle): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Presenter's Name: _____

Ratings (Please circle)	Excellent	Good	Average	Fair	Poor
A. How well did the presenter...?					
1. State objectives for presentations	5	4	3	2	1
2. Meet objectives for presentation	5	4	3	2	1
3. make presentation interesting	5	4	3	2	1
4. Answer your questions (individually, group or written form)	5	4	3	2	1
B. What was your impression of the...?					
5. Clarity of presentation/ workshop	5	4	3	2	1
6. Use of visuals (overheads, videotapes, slides, etc.)	5	4	3	2	1
C. What is your overall rating?					
7. Overall session rating	5	4	3	2	1

COMMENTS/SUGGESTIONS/IMPROVEMENTS YOU'D LIKE TO MAKE

_____
_____
_____
_____
_____

Data by project year appears in the following sections.

1987 - 1990 Evaluation of Performance Objectives

The evaluation of P.I.A.G.E.T.'s performance objectives appear in the following table.

TABLE 19

1987-1990 Evaluation of Performance Objectives

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
PRIMARY GOAL: To develop components of the P.I.A.G.E.T. Dissemination Program			
3.1 Component: Development/Start-Up	Completed in six months.	Refined through use.	Refined through use.
3.1.2 As a result of advertising, interviewing and recruiting, quality Project Staff, whose responsibilities and minimum qualifications as identified (see section 4.0 Quality of Key Personnel), will be hired.	Completed.	Some staffing as 1987-88.	Some staffing as 1987-88.
3.1.3 Through contacts with LEAs, parochial schools, agencies, organizations, community action groups, Multifunctional Resource Center, National Clearing House for Bilingual Education and other providers of programs and services to LEP people, planning and establishing the beginnings of networking in the P.I.A.G.E.T. Dissemination Program will occur.	Coordinating Advisory Committee (CAB) formed and met in 40 PA public and private LEAs contacted along with MRC and NCBE, 11 March 1988.	CAB met, Spring, 1989.	CAB met, Fall, 1990.
3.1.4 Given ordering of project materials, computer, software and others, the P.I.A.G.E.T. Dissemination Program will have the necessary items to begin operating.	Staggered ordering based on immediate need, all completed by 5 April 1988.	Reordering, September, 1988.	Reordering, September, 1989.
3.1.5 By redesigning and modifying current P.I.A.G.E.T. materials, the Dissemination pamphlets, packets and training manuals will be prepared and available for use.	Completed redesigning of pamphlets and packets, February, 1988.	Completed redesign of Training Manuals: Classroom and Home.	Additional P.I.A.G.E.T. materials modified, e.g., P.I.A.G.E.T. Catalog of Tapes and Materials.
3.1.6 Given development and printing of needs' assessment questionnaires to determine the extent of need and interest levels for P.I.A.G.E.T. programs and services available for mailing to parochial schools, agencies and other LEP program and service providers.	Needs Assessment Questionnaire (NAQ) developed, October, 1989.	Used in workshop training and mailings to LEAs in PA and NJ.	NAQ discontinued, not cost effective for mailings given returns.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years 1987-88	1988-89	1989-90
3.1.7 As a result of developing and printing the Program's monitoring and evaluation instruments, these items will be available to assess performances, knowledge and skills of potential adopters who will undergo training in workshop settings.	Five LEP and four Parent assessments employed, December, 1987.	Monitoring instruments for Classroom and Home, August, 1988.	Reduced LEP and Parent assessments to three each, assessments overlapped and too time consuming for administering.
3.1.8 By training Project Staff and practicing the delivery of the Leadership Training modules (see 3.4), the Staff will understand their roles and practice them to 80% or above mastery criterion to enable them to deliver them effectively to potential adopters/trainers.	Training Presentations to Parent Site Staff delivered beginning October, 1987 to June 1988.	Training provided as needed.	Re-institution of Parent Site Staff, September to June 1987.
PRIMARY GOAL: To implement the P.I.A.G.E.T. Dissemination Model with its singular focus of adoption identified areas in great need of effective programs. 3.2 Component: Dissemination 3.2.1 Level 1: Awareness and Networking as Dissemination			
3.2.2 As a result of forwarding Type 1 pamphlet describing P.I.A.G.E.T. Dissemination, LEA personnel and personnel from varied LEP providers will have an initial understanding of the program in general.	Type 1 packet mailed to 700 public and private LEAs. Spanish language version not implemented. December, 1987.	Continuation of mailing Type 1 packet to PA and NJ.	Type 1 packet modified to essential one page Abstract and NAQ discontinued (see 3.1.6).
3.2.3 As a result of reviewing pamphlet, LEP providers as potential adopters, will complete and return needs assessment, "P.I.A.G.E.T. Dissemination: Estimation of Needs Assessment" as part of Type 1 pamphlet	10 estimated requesters received.	15 estimated requesters received.	Type 1 - abstract distributed to awareness and training presentations, 500 estimated.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.4 Given requests from Type 1 pamphlet, Type 2 packet is forwarded to provide greater understanding of Program.	10 estimated. Type 2 packets forwarded.	15 estimated. Type 2 packets forwarded. Type 2 packet redesigned into PIAGET Pocket Brochure.	Type 2 - PIAGET Pocket Brochure distributed to Awareness and Training Presentations, 500 estimated.
3.2.5 Given requests from Type 2 packet, Type 3 detailed packet including videotape is forwarded to prove greater degree of "observability" to potential adopter.	Type 3 videotapes completed, Spring, 1988.	12 estimated mailings of Type 3 videotapes, e.g., Lufkin, Texas.	7 estimated mailings of Type 3 videotapes. Decision made to redo Type 3 to more professional quality e.g., Houston, TX. Lancaster (PA)
3.2.6 With distribution of materials, Types 1 to 3, and related contact, a two-way flow between P.I.A.G.E.T. Dissemination and potential adopters which will increase capacities of and potential for networking, develop stronger ties, and move closer to Level II, Involvement and Training as Dissemination.	4 LEA group visits to Parent Site from March 1988 to June 1988, excluding on-sites from individual administrator visits.	3 LEA group visits to Parent Site from September 1988 to June 1989 excluding on-sites from individual administrator visits.	LEA group visit to Parent Site from September 1989 to June 1990, excluding on-sites from individual administrator visits.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.7 As result of receiving varied numbers and types of LEP providers as potential adopters, Coordination Advisory Board will meet to develop "blue-print" for coordination of activities (See 3.2.1 and section 6.0 Coordination)	Major interest as potential adapters received from: (a) LEA's in Florida, Texas, California, Wisconsin and Washington (b) SEAs in Texas and Missouri (c) Multiservice Units in California, Texas, Pennsylvania (d) Private Schools in Pennsylvania.	Major interest as potential adapters received from: (a) LEAs in Illinois, Massachusetts, Maine and Rhode Island (b) SEA in Texas (c) Multiservice Units in California and Pennsylvania.	Major interest a potential adapters received from: (a) LEAs in Alabama, Texas and Missouri (b) Multiservice Units in Pennsylvania and Oregon.
3.2.8 Given Level 1 activities, a list of potential adopters willing to undergo Level II, Involvement and Training as Dissemination, is developed and consent for participation in training is documented in writing between P.I.A.G.E.T. Dissemination and potential adopters.	Adoption Agreement: (a) Portland Public Schools, Portland, Maine.	Adoption Agreements: (a) Grand Rapids Public Schools, Grand Rapids, Michigan (b) Holy Infancy Elementary School, Bethlehem, Pennsylvania.	Adoption Agreements: (a) Commonwealth of Pennsylvania Migrant Program, Gettysburg, Pennsylvania (b) Tacoma Public Schools, Tacoma, Washington.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
PRIMARY GOAL: To involve and train potential adopters in P.I.A.G.E.T. programs toward a commitment to adopt it as program practices for young LEP children (at or below five years of age) and their parents 3.2 Component: Dissemination 3.2.2 Level 2: Involvement and Training as Dissemination			
3.2.3 As a result of completing Component I (Development/Start-Up) and Level 1 of Component II (Dissemination), the P.I.A.G.E.T. Dissemination Staff will prepare to deliver effectively workshop training sessions.	P.I.A.G.E.T. Awareness and Training Sessions delivered by: (a) Portland Public School, Portland, Maine Staff.	P.I.A.G.E.T. Awareness and Training Sessions delivered by: (a) Portland Public School, Portland, Maine Staff (b) Grand Rapids Public School, Grand Rapids, Michigan Staff.	P.I.A.G.E.T. Awareness and Training Sessions delivered by: (a) Commonwealth of Pennsylvania Migrant Staff (b) Grand Rapids Public School, Grand Rapids, Michigan Staff (c) Tacoma Public School, Tacoma, Washington Staff.
3.2.4 Given completion of Cycle 1, Leadership Training Workshops, the potential adopters will demonstrate increased knowledge and skills of BASIC Cycle.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.
3.2.5 Given completion of Cycle 2, Leadership Training Workshops, the potential adopters will demonstrate increased knowledge and skills of INTERMEDIATE Cycle.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.6 Given completion of Cycle 3, Leadership Training Workshops, the potential adopters will demonstrate increased knowledge and skills of COMMITMENT Cycle.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% increases of trainees on written pre and post tests given before and after training.
3.2.7 As a result of completing Cycles 2 and 3, the P.I.A G.E.T. Program staff, together with these remaining adopters develop a selection criteria for adopters wishing to use P.I.A.G.E.T. Programs and their LEAs/agencies.	Completion of Selection Criteria for Adopters.	Modification of Selection Criteria for Adopters.	Refinement of Selection Criteria for Adopters.
3.2.9 With the assistance of the Coordination Advisory Board (see Section 6.0, Coordination), technical assistance will be received from and will be offered to other providers or services to LEP persons across Cycles 1, 2 and 3 training.	Coordination Advisory Board (CAB) generated potential adopter list for technical assistance.	CAB generated potential adopter list for technical assistance.	CAB generated potential adopter list for technical assistance.
3.2.10 With a subset of adopters completing Cycle 3, a commitment to adopt is made and negotiation and signing of adoption agreement are completed for Level 3.	Adoption Agreement: (a) Portland Public Schools, Portland, Maine.	Adoption Agreements: (a) Grand Rapids Public School, Grand Rapids, Michigan. (b) Holy Infancy Elementary School, Bethlehem, Pennsylvania.	Adoption Agreements: (a) Commonwealth of Pennsylvania Migrant Programs, Gettysburg, Pennsylvania (b) Tacoma Public Schools, Tacoma, Washington.

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
PRIMARY GOAL: To begin installation of P.I.A.G.E.T. Programs and to train, monitor and evaluate these sites 3.2 Component: Dissemination 3.2.2 Level 3: Installation in Adoptive Sites as Dissemination			
3.2.4 As a result of Level 2, Involvement and Training as Dissemination and Negotiated Agreement to adopt, a trained installation teacher and aide will be identified at the new adoption site.	Adoption Agreement implemented.	Adoption Agreements implemented.	Adoption Agreements implemented.
3.2.5 Given network linking between P.I.A.G.E.T. Bethlehem (PA) sites, P.I.A.G.E.T. Dissemination Programs and new adopted site, the implementation process of adoption will be strengthened and expanded.	Networking on-going with Adoption Site.	Networking on-going with Adoption Sites.	Networking on-going with Adoption Sites.
3.2.6 Given the P.I.A.G.E.T. Trainers Certificate (PTC) Program begun at the new adoption site and supplemented, as necessary, by P.I.A.G.E.T. Dissemination Programs, selected trainers will be trained systematically and certificates awarded on P.I.A.G.E.T. Programs' Methodologies.	Two Adopter Trainers trained in P.I.A.G.E.T. Maine.	Three additional Adopter Trainers trained in P.I.A.G.E.T. Grand Rapids.	Four additional Adopter Trainers trained in P.I.A.G.E.T. Migrant Gettysburg and Tacoma programs.
3.2.7 Given the P.I.A.G.E.T. Trainers Certificate (PTC) Program, selected trainees will be trained to perform specified functions for Project P.I.A.G.E.T. Dissemination Programs such as presenting at awareness sessions, making on-site visits, providing follow-up services and conducting training.	One Adopter Trainer for Classroom Program, N. O'Carrol and one Adopter Trainer for Home Program, P. Sen. June, 1988.	One additional Adopter Trainer for Classroom, J. Jensen and one Adopter Trainer for administrative functions, P. Caterino, June, 1989.	One additional Adopter Trainer for Classroom, W. Dickerson, June 1990.
3.2.8 Given the P.I.A.G.E.T. Trainers Certificate (PTC) Program, two trainees will be selected and trained to perform all programmatic functions such as initial awareness, training, follow-up, and technical assistance.	On going searching.	One Adopter Trainer for all functions, G. Studley, June, 1989.	Two Adopter Trainers for all functions, L. Grimm, and K. Martin June, 1990.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.9 As a result of PTC trained and certificated personnel, additional expertise for the P.I.A.G.E.T. Dissemination Program and adoption sites will be developed and utilized.	On going training.	Cross training utilized in P.I.A.G.E.T., Grand Rapids, October, 1989.	Cross training utilized ir P.I.A.G.E.T., migrant Gettysburg, May, 1990.
3.2.10 As a result of the installation and monitoring continuously and systematically, the daily, weekly and monthly performance of installation teacher and aide staff, administrator(s), LEP children and their parents will increase relative to monitoring measures, respectively.	Monitoring records maintained by Adoption Sites.	Monitorin records maintained by Adoption Sites.	Monitoring records maintained by Adoptior Sites.
3.2.11 As a result of the installation and evaluating systematically the performances of installation teacher and aide staff, administrator(s), LEP children and their parents will increase relative to evaluation measures, respectively.	See in this report results of data analyses at Adoption and Parent Sites.	See in this report results of data analyses at Adoption and Parent Sites.	See in this report result of data analyses at Adoption and Parent Sites.
PRIMARY GOAL: To provide ongoing support and long term follow-up to adoption sites 3.2 Component: Dissemination 3.2.2 Level 4: Follow-up, Technical Assistance and Evaluation as Dissemination			
3.2.5 As a result of information contacts using phone, letters, etc., the adopter will be contacted every two (2) months to determine current status of adoption staff (e.g., have any been transferred, let, etc.) and discern any immediate needs, problems, etc.	Second and third training based on informational telephone and letter contacts.	Second and third training based on informational telephone and letter contacts.	Second training based on informational telephone and letter contacts. Third training eliminated two rather than three day training instituted.
3.2.6 Given personal contacts between P.I.A.G.E.T., another technical assistance provider with adoption site, current status of adoption site is determined and cooperative activities between providers of technical assistance are linked and strengthened.	P.I.A.G.E.T. Staff on "on-call" basis, December 1987 to June 1988.	P.I.A.G.E.T. Staff on "on-call" basis, September 1988 to June 1989.	P.I.A.G.E T. Staff on "on-call" basis, September, 1989 to June 1990.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.7 As a result of post-training letters and "operational checklists" mailed to adopters, analyses of responses to post-training letters and "operational checklists" will permit the P.I.A.G.E.T. Dissemination Staff to determine readiness for technical assistance.	"Observational checklists" developed and used only in Parent Site for on-site visits and training.	"Observational checklists" developed and used only in Parent Site for on-site visits and training.	"Observational checklists" developed and used only in Parent Site for on-site visits and training.
3.2.8 Given invited observational visits to adoption site, the P.I.A.G.E.T. Dissemination Staff will observe, provide pertinent feedback to adopter staff and administration, and record possible readiness for technical assistance and areas in which it might be provided.	P.I.A.G.E.T. Staff meets with Site Director and Adoption Staff after each observation to go over results of observations using monitoring instruments.	P.I.A.G.E.T. Staff meets with Site Director and Adoption Staff after each observation to go over results of observations using monitoring instruments.	P.I.A.G.E.T. Staff meets with Site Director and Adoption Staff after each observation to go over results of observations using monitoring instruments.
3.2.7 Given informational and personal contact to determine readiness and areas for technical assistance, P.I.A.G.E.T. Dissemination will deliver technical assistance in readiness and needs areas.	Site Director records areas for TA based on Adoption Staff and P.I.A.G.E.T. Staff-letters on file.	Site Director records areas for TA based on Adoption Staff and P.I.A.G.E.T. Staff-letters on file.	Site Director records areas for TA based on Adoption Staff and P.I.A.G.E.T. Staff - letters on file.
3.2.8 As a result of technical assistance given by trainees of the P.I.A.G.E.T. Trainers Certificate (PTC) Program, the P.I.A.G.E.T. competencies, skills and knowledge of adopter's staff administrator(s) and PTC trainers will increase and build greater capacity.	Monitoring instruments, completed twice monthly by Site Director, document performance increases over time, these are maintained at Adoption Sites.	Monitoring instruments, completed twice monthly by Site Director, document performance increases over time, these are maintained at Adoption Sites.	Monitoring instruments completed twice monthly by Site Director, document performance increases over time, these are maintained at Adoption Sites.
3.2.9 As a direct result of ongoing support and long-term follow-up, the adoption sites within the LEA will increase.	No increase in number of sites in Adopter LEAs, P.I.A.G.E.T. fits specialized needs.	No increase in number of sites in Adopter LEAs, P.I.A.G.E.T. fits specialized needs.	Two additional sites promised in P.I.A.G.E.T. migrant, Gettysburg (funding budgeted in October, 1991).

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.2.10 Given the results obtained from follow-up monitoring, P.I.A.G.E.T. classroom-aide teaching staff, home aide staff, administrative staff and LEP children will show decreasing need for technical assistance and increasing capacity building on these measures, respectively.	Decreasing request for technical assistance and increasing time between training and retraining sessions.	Decreasing request for technical assistance and increasing time between training and retraining sessions.	Decreasing request for technical assistance an increasing time betwee training and retraining sessions.
3.2.11 Given collection and analyses of long term data on evaluation, the results will show significant increases in performances of young LEP children, classroom installation staff, home aide, administrator (s) and parents on measures, respectively.	Significant differences on measures noted for P.I.A.G.E.T. LEPs and parents from pre to post tests across 10 months.	Significant differences on measures noted for P.I.A.G.E.T. LEPs and parents from pre to post tests across 10 months.	Significant differences on measures noted for P.I.A.G.E.T. LEPs and parents from pre to pos tests across 10 months
3.2.12 As a result of ongoing support and follow-up technical assistance and systematically, the daily, weekly, and monthly performance of installation teacher and aide staff, administrator(s), LEP children and their parents will increase relative to monitoring measures, respectively.	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.
3.2.13 As a result of ongoing support and long term follow-up, the parent dissemination program disengages and weans itself away from the surrogate adopter site by the end of Level 4 or before.	Not possible given Adoption Agreement requirements.	P.I.A.G.E.T. Portland Public Schools, Portland, Maine disengaged from Parent Site, June 1989 - Adoption Agreement completed.	Not possible given Adoption Agreement requirements.
PRIMARY GOALS: To develop an implement a statewide system of networking 3.3 Component: Statewide-Support Networking System			
3.3.1 As a result of developmenting and implementing State-wide Support Networking System, links between P.I.A.G.E.T. Dissemination Program will be established with target LEAs, other LEAs, SEA and numerous agencies throughout the Commonwealth of Pennsylvania for purposes of delivering information, services and training.	Coordination Advisory Board in place.	Coordination Advisory Board in place.	Coordination Advisory Board in place.

TABLE 19 (Con't)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.3.2 Given the number of private schools, day care associations funded by the state and cities and Federal Head Start in the Commonwealth of Pennsylvania, links with these units and Project P.I.A.G.E.T. Dissemination will be established and increased for purposes of delivering information, services and training in P.I.A.G.E.T. Dissemination.	Telephone calls made and informational materials sent to private schools, day cares.	Telephone calls made and informational materials sent to private schools, and day cares and Awareness sessions given to National Catholic Education Association and National Association for Education of Young Children.	Telephone calls made and informational materials sent to private schools, and day cares and Awareness sessions given to National Catholic Education Association and National Association for Education of Young Children.
3.3.3 Given the development and implementation of a statewide network, delivery of information and communication III increase among all providers of services, materials and training.	3000 estimated copies sent of P.I.A.G.E.T. Disseminator one issue completed.	3000 estimated copies sent of P.I.A.G.E.T. Disseminator, two issues completed.	3000 estimate copies sent of P.I.A.G.E.T. Disseminator, two issues completed.
PRIMARY GOAL: To provide necessary training for project staff with pertinent feedback on their performances and competencies 3.4 Component: Project Staff Training			
3.4.1 As a result of an orientation, the project staff will increase their knowledge and skills of the P.I.A.G.E.T. Dissemination Program and its outcomes.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.

TABLE 19 (Con'l)

Performance Objectives	Documentation by Years		
	1987-88	1988-89	1989-90
3.4.2 Given general and specific descriptions of staff roles, the project staff will increase their understandings of their roles, outcome behaviors, and expectations about the program.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.
3.4.3 As a result of actualizing their roles and with feedback on their performance, the project staff will internalize their roles, responsibilities and expectations through role play, play back sessions and pre/post "Perceptions of Roles" and Monitoring during role play episode(s).	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.
3.3.4 Given additional practice sessions of role playing and feedback the project staff will increase their internalization of their roles, responsibilities and expectations through pre/post "Perceptions of Roles" and monitoring during role play episodes.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.	50% to 100% performance increases of trainees on written pre and post tests given before and after training.
3.4.5 As a result of Development/Start-Up (Component I) activities, the Project Staff will increase their actual role competencies and knowledge and skills required for P.I.A.G.E.T. Dissemination as the Staff begins and completes this Component (I) and prepared for operationalizing Dissemination Component(I).	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.
3.4.6 As a result of ongoing Project Staff training, they will significantly increase their performances, competencies, knowledge and skills across each of the months and years of the Program.	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.	Monitoring records maintained by Adoption Sites.

1987-1990 P.I.A.G.E.T. Awareness and Training Presentations

There were many P.I.A.G.E.T. awareness and training presentations in the years 1987-1990. The listing of the presentations, places and specific dates by year is given below in the tables.

TABLE 20

1987 - 1988 Awareness Presentations, Agencies, Locations and Dates

Agency/Association	Awareness Presentation Location	Dates
1. Massachusetts Association for Bilingual Education	Boston, Massachusetts	February 25-27, 1988

TABLE 21

1988 - 1989 Awareness Presentations, Agencies/Associations, Locations and Dates

Agency/Association	Awareness Presentation Location	Dates
1. National Association for Bilingual Education	Miami, Florida	May 7-13, 1989

TABLE 22

1989 - 1990 Awareness Presentations, Agencies/Associations, Locations and Dates

Agency/Association	Awareness Presentation Location	Dates
1. Pallatine Public Schools	Pallatine, Illinois	October 25-26, 1989
2. New England Bilingual and Reading Conferences	Newport, Rhode Island	November 1-3, 1989
3. California Association for Bilingual Education	San Francisco, California	January 25, 1990
4. Turabo University Bilingual Program Conference	Gurabo, Puerto Rico	March 7-10, 1990
5. Massachusetts Association for Bilingual Education	Lowell, Massachusetts	March 1-2, 1989
6. National Association for Bilingual Education	Tucson, Arizona	April 22-28, 1990
7. Migrant Education Conference	San Antonio, Texas	April 31, 1990

TABLE 23

1987 - 1988 P.I.A.G.E.T. Training at Parent and Adoption Sites, Locations, and Dates

Training at Adoption Sites	Locations	Training Cycle	Dates
1. Portland Public Schools	Portland, Maine	1-2	January 6, 1988
2. Bethlehem Area School District	Bethlehem, Pennsylvania	2-3	January 27, 1988
3. Portland Public Schools	Portland, Maine	2-3	June 5-7, 1988

TABLE 24

1988 - 1989 P.I.A.G.E.T. Training at Parent and Adoption Sites, Locations, and Dates

Training at Adoption Sites	Locations	Training Cycle	Dates
1. Bethlehem Area School District	Bethlehem, Pennsylvania		November 10, 1988
2. Bethlehem Area School District	Bethlehem, Pennsylvania		December 13, 1988
3. Grand Rapids Public Schools	Grand Rapids, Michigan	1	December 13, 1988
4. Portland Public Schools	Portland, Maine	3	January 6, 1989
5. Bethlehem Area School District	Bethlehem, Pennsylvania		January 27, 1989
6. Bethlehem Area School District	Bethlehem, Pennsylvania	3	March 30-31, 1989
7. Commonwealth of Pennsylvania Migrant Programs	Harrisburg and New Oxford, Pennsylvania	1-2	May 16-18, 1989

TABLE 25

1988 - 1989 P.I.A.G.E.T. Training at Parent and Adoption Sites, Locations, and Dates

Training at Adoption Sites	Locations	Training Cycle	Dates
1. Holy Infancy Elementary School	Bethlehem, Pennsylvania	1-2	October 4, 1989
2. Bethlehem Area School District	Bethlehem, Pennsylvania	3	October 10-11, 1989
3. Grand Rapids Public Schools	Grand Rapids, Michigan	2-3	November 5-7, 1989
4. Union City Board of Education	Union City, New Jersey	1	December 5, 1989
5. Tacoma Public Schools District	Tacoma, Washington	1-2	January 17-20, 1990

TABLE 25 (con't)

6.	Bethlehem Area School District	Bethlehem, Pennsylvania	3	April 11, 1990
7.	Tacoma Public Schools	Tacoma, Washington		May 22-24, 1990
8.	Commonwealth of Pennsylvania Migrant Programs	Gettysburg, Pennsylvania	1-2	June 26, 1990
9.	Commonwealth of Pennsylvania Migrant Programs	New Oxford, Pennsylvania	2-3	July 9-11, 1990

1987 - 1990 Participants Evaluations of P.I.A.G.E.T. Awareness and Training Presentations

The following tables present mean evaluation scores for each day of presentations both of the awareness and the training type throughout the 1987-1990 period. The grand mean total for the three project years is 4.57 on the 1 to 5 Likert scale. (see Table 17).

TABLE 26

1987 - 1990 Evaluation of P.I.A.G.E.T. Presentations

PROJECT YEAR: 1987-1988

Location of P.I.A.G.E.T. Session	Date	Type of Presentation	Presentation Number 1 2 3 Grand Mean Responses[a] N N= N=
Bethlehem Area School District Marvine Elementary School Bethlehem, Pennsylvania	January 27, 1988	Training	4.97(N=3)

[a]5 (Excellent), 4 (Good), 3 (Average), 2 (Fair), 1 (Poor)

TABLE 27
1987 - 1990 Evaluation of P.I.A.G.E.T. Presentations

PROJECT YEAR: 1988-1989

Location of P.I.A.G.E.T. Session	Date	Type of Presentation	Presentation Number 1	2	3
			Grand Mean Responses[a] N	N	N
1.Bethlehem Area School District Bethlehem, Pennsylvania	November 10, 1988	Training	5.0(N=2)		
2.Bethlehem Area School District Bethlehem, Pennsylvania	December 13, 1988	Training		4.81(N=3)	
3.Bethlehem Area School District Bethlehem, Pennsylvania	January 27, 1989	Training			4.82(N=8)
4.Bethlehem Area School District Education Center Bethlehem, Pennsylvania	March 30, 1989 March 31, 1989	Training Training			4.34(N=12) 4.65(N=13)
5.NABE Conference Miami, Florida	May 12, 1989	Awareness	4.59(N=7)		
6.Grand Rapids Public Schools Grand Rapids, Michigan	December 13, 1988	Training	4.81(N=3)		

[a]5 (Excellent), 4 (Good), 3 (Average), 2 (Fair), 1 (Poor)

TABLE 28
1987 - 1990 Evaluation of P.I.A.G.E.T. Presentations

PROJECT YEAR: 1989-1990

Location of P.I.A.G.E.T. Session	Date	Type of Presentation	Presentation Number 1	2	3
			Grand Mean Responses[a] N	N	N
1.Holy Infancy Elementary School Bethlehem, Pennsylvania	October 4, 1989	Training	4.68(N=8)		
2.Union City Board of Education Union City, New Jersey	December 5, 1989	Awareness	4.57(N=5)		
3.Tacoma Public Schools Tacoma Washington	January 18, 1990 January 19, 1990 January 20, 1990	Training Training Training	4.78(N=7)	4.65(N=7)	4.83(N=7)
4.CABE Conference San Francisco, California	January 25, 1990	Awareness	4.45(N=15)		
5.MABE Conference Boston, Massachusetts	March 3, 1990	Awareness	4.33(N=39)		
6.Academic Excellence Conf. University of Turabo, Gurabo, Puerto Rico	March 8, 1990	Awareness	4.79(N=16)		
7.Bethlehem Area School District Bethlehem, Pennsylvania	April 11, 1990	Training	4.12(N=6)		

TABLE 28 (con't)

8.NABE Conference Tucson, Arizona	April 25, 1990	Awareness	4.73(N=8)
9.Migrant Education Conference San Antonio, Texas	April 31, 1990	Awareness	4.42(N=36)
10.Tacoma Public Schools	May 22, 1990	Training	4.43(N=7)
Tacoma, Washington	May 23, 1990	Training	4.36(N=7)
	May 24, 1990	Training	4.73(N=7)
11.Commonwealth of PA Migrant Programs Gettysburg, Pennsylvania	June 26, 1990	Training	3.84(N=6)
12.Commonwealth of PA	July 9, 1990	Training	3.75(N=8)
Migrant Programs,	July 10, 1990	Training	4.09(N=10)
Gettysburg & New Oxford, PA	July 11, 1990	Training	4.05(N=11)

[a]5 (Excellent), 4 (Good), 3 (Average), 2 (Fair), 1 (Poor)

Anecdotal Reports from P.I.A.G.E.T. Adoption Staff

Several P.I.A.G.E.T. Adoption Staff were interviewed during or after the training sessions. To document the impacts of P.I.A.G.E.T., examples of anecdotal data follow.

Teacher Question: "How do you think the P.I.A.G.E.T. program has helped you better serve your limited English proficient children in your classroom?"

Responses:

#1: I feel the P.I.A.G.E.T. program has helped me serve the limited English proficient children in many ways. The first improvement I see is the happiness and the involvement of the children accompanied by the positive feedback from the parents. I say this first because I do not think children can learn in a situation where they are not happy. Obviously, they find this program very fulfilling. Secondly, I have seen a definite improvement in the way they express themselves in their English and self-confidence.

#2: The focus is perfect for preschool children, which is to give them a lot of experiences and opportunities to experiment and manipulate objects in their environment. When they manipulate these objects, you talk to them in English, so their learning is two fold.

We also try to continue their native language development. Children that have been in the program for a few years are very excited about learning and the environment that surrounds them.

#3. It has given them an opportunity to increase their English vocabulary through language experience activities. These experiences provide opportunities for children to elaborate very easily on what they see and do from day-to-day.

#4 It already has given me ideas on how to gear myself in a different way to dealing with the children in the classroom. There are some things I have taken for granted that are being brought to the forefront which is the helping me to alter my methods. This allows me to better deal with their developing knowledge of the English language.

Aide Question: "How do you think the P.I.A.G.E.T. program brings together the school classroom and home?"

Responses:

#1: The parents are very involved, which helps the children in the learning process. The teacher also helps the parent and child with various learning experiences.

#2: P.I.A.G.E.T. gives the parent a strong sense of responsibility with their child's education. They want to support the learning that takes place in the classroom, therefore supporting their child.

#3: I think it is a wonderful idea because in my culture (I'm Chinese and Vietnamese) the parents leave the teaching to the teachers, and I think this program gets the parents more involved in the project to know what their children learn.

#4: I think it works well because the strategies involved encompass many of the strategies that I like to work with. For example, more positive reinforcement when working with parents. I feel that it is very important to have parental support in any educational program.

SUMMARY

As evidenced above, the period from 1987-1990 was for Project P.I.A.G.E.T. extremely productive and successful. Following the start off year of 1987, the Project gained momentum through dissemination, adoptions, and further refinement. Effective staff training and development of new materials contributed largely to the success of Project P.I.A.G.E.T.

Awareness and training presentations were delivered during 1987-1990. Evaluations of these presentations collected form participants show a very high rating (overall grand mean 4.57 on a 1-5 scale) for the presenters. Furthermore, anecdotal reports from P.I.A.G.E.T. Adoption Staff were extremely positive and show that Project P.I.A.G.E.T. was both well received and well delivered.

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