

# Foundations for Early Learning: The InvestiGator Club<sup>™</sup> Research Base

Sharon Landesman Ramey, Ph.D.

Craig T. Ramey, Ph.D.

**Directors of the Georgetown University Center on Health and Education** 



Copyright © Robert-Leslie Publishing Design: Rainbow Educational Concepts, Inc.

All logos, characters, and place names including The InvestiGator Club, The InvestiGator Club logo, Bruno's Buzz, Bruno's Buzz logo, Bruno's Bee Mail, Bruno's Buzz Network, Dilly and Friends, Dilly and Friends logo, Dilly Gator, JT Gator, Great Auntie Lu, Manny Salamander, Chuck Wood, Rosalita Sausalita, Bruno Buzzbee, Dilly's World, Circle Forest, Triangle Beach, City Square, Miss Lilly's Pads, and Diggery Den are trademarks of Robert-Leslie Publishing LLC and cannot be used without permission of the publisher. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or likewise, without the prior written permission of the publisher. For information regarding permissions, write to: Permissions department, Robert-Leslie Publishing, P.O. Box 5689, Evanston, Illinois 60204.

Acknowledgements appear in the back of this pamphlet.

Printed in the United States

ISBN10 1-59927-370-5 ISBN13 978-1-59927-370-9

 $3\ 4\ 5\ 6\ 7\ 8\ 9\ 10 \quad 12\ 11\ 10\ 09\ 08$ 

# Foundations for Early Learning: The InvestiGator Club<sup>™</sup> Research Base



**Sharon Landesman Ramey, Ph.D.** The Susan H. Mayer Professor of Child and Family Studies Professor of Psychiatry

and

#### Craig T. Ramey, Ph.D.

Georgetown University Distinguished Professor of Health Studies Professor of Psychiatry

Directors of the Georgetown University Center on Health and Education



### **Contents**

Foreword	•			•	•		•	•	•	•	•	•	• •	• •	•		•	•	•	•		•	•	•	•	•	5
Evidence-Based Practices.	•	• •	•	•	•	•	•	•	•	•	•	•	• •	•••	•	•	•	•		•		•	•	•	•	•	6
Conceptual Framework .				•			•	•		•		•	• •	••			•		•	•	•			•			7

#### **RESEARCH OVERVIEW AND IMPLEMENTATION**

- '

-

Oral Language
Phonological Awareness
Alphabet Knowledge
Concepts of Print
Writing
Mathematics
Science
Creative Arts
Social and Emotional Development
Conclusion
Bibliography

### Foreword

For more than thirty years, we have conducted systematic research on young children to help advance the scientific understanding of environmental influences on their abilities. Our particular focus has been those abilities that lead to successful transitions from home to school and, later, the world of independent adulthood (S. Ramey and Ramey, 1999; C. Ramey and Ramey, 1999). As scientists, we rely on two rigorous research traditions: that of gathering careful, objective observations (naturalistic research) and that of conducting randomized controlled trials to test the efficacy of interventions and treatments to improve children's outcomes (experimental research). Most importantly, we benefit from a perspective that is uniquely available over time—namely, the longitudinal perspective that provides the window on the future, the answer to the truly universal and transcultural question: "Will this child grow up happy, healthy, caring, and capable?"

We have documented the lives of hundreds of babies as they have grown, and we have been a part of teams of investigators who have collected and analyzed data on thousands of young children as they progressed through the school years and transitioned into young adulthood (C. Ramey and Ramey, 2004; S. Ramey, Ramey, and Lanzi, 2006). For the sake of science, as well as to benefit young children, we have created and tested methods and materials that promote success. From these scientific studies, we have learned that all children can learn and achieve at levels higher than ever anticipated if and when they are provided with the right opportunities and the stable, supportive, and stimulating environments essential for healthy maturation.

The InvestiGator Club<sup>™</sup> Prekindergarten Learning System, authored by Joellyn Cicciarelli and Beth Alley Wise and published by Robert-Leslie Publishing, is a comprehensive curriculum that takes the scientific evidence about what really matters in the lives of young children and puts it into action in the classroom. The integrated curriculum teaches within ten critical early learning domains: language development, literacy, mathematics, science, creative arts, social and emotional development, approaches to learning, physical health and development, social studies, and technology. The authors have organized The InvestiGator Club to be highly attractive to teachers, children, and their families and to emphasize how to best prepare young children for successful school transitions. The InvestiGator Club seeks to make learning fun for everyone while ensuring that children's educators both teachers and parents—understand why, when, and how to provide crucial learning opportunities.

This paper presents the varied and scientifically based research sources used to create and develop The InvestiGator Club. This strong research base, coupled with alignments to Early Reading First, Head Start Child Outcomes, NAEYC/IRA joint position statements, and state guidelines, results in this developmentally appropriate and child-centered curriculum.

### **Evidence-Based Practices**

In education, the best curriculum provides a guiding framework and all materials and supports needed to ensure meaningful and enjoyable experiences that contribute to the positive child outcomes valued by parents, educators, and the community. In today's world of early childhood learning, nearly everyone emphasizes the importance of "evidence-based practices," but what exactly is meant by the term, and how does The InvestiGator Club achieve this goal?

"Evidence-based practices" describe "the adoption of interventions and practices that are informed by research" (Dunst, Trivette, and Cutspec, 2002). These practices have been subjected to scientific study and have been shown to make a difference in children's behavior and school readiness. Evidence-based practices are not just opinions about what children will like or what is "good" for them. Rather, evidence-based practices are specific ways to put into action what scientific studies have shown to make a true impact.

A fascinating research finding on young children's learning is that what helps at-risk and disabled children is the same as that which helps typically developing and accelerated children. This means that an educationally challenging curriculum can be effective for children of all levels and backgrounds when teachers know how to individualize lesson plans and actively assess each child's progress. For evidence-based practices to produce the intended positive outcomes, the curriculum must include:

- a thoughtful scope and sequence of learning activities (linked to children's developmental stages).
- ongoing planned assessments that provide reliable and valid information about each child's development.
- specific methods for adapting activities for children with special learning needs.
- an emphasis on classroom-home communication to maximize learning both in and out of school.

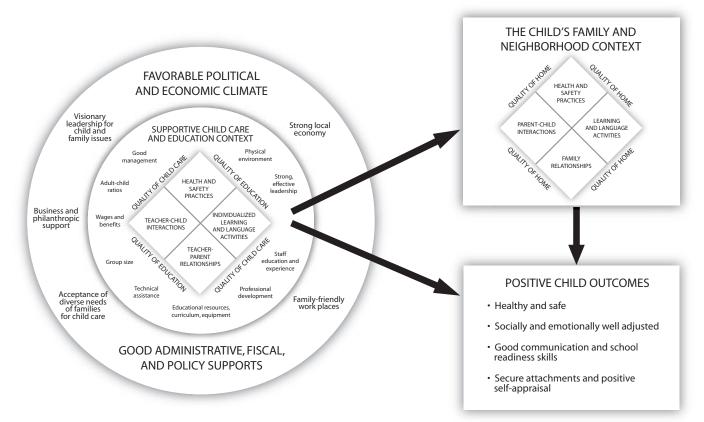
The InvestiGator Club fulfills all the requirements of a strong curriculum. All areas of Early Reading First, along with the latest scientific findings, have been incorporated into the recommended classroom activities and daily plans. We have developed and tested preschool educational programs for the past three decades and believe this program to be distinctive in its clear focus on providing teachers with everything needed to ensure that children's daily experiences are interesting, educational, healthy, and fun. Because the authors of The InvestiGator Club are deeply knowledgeable and well seasoned in the classroom, the highly attractive materials they have created combine the "tried and true" (use of manipulatives for hands-on learning, music and movement, integrated activities) with truly original and innovative features.

# **Conceptual Framework**

Providing and sustaining a high-quality early education program is extremely challenging (S. Ramey and Ramey, 2005). Program features such as small classroom and group sizes; good teacher-to-child ratios; attractive space, furnishings, supplies, and books; and teachers with degrees and certification are considered highly desirable ingredients for a preschool program but alone cannot guarantee that children will receive a high-quality prekindergarten education. Rather, scientific evidence shows that quality depends primarily on the amount of stimulating day-to-day interactions and learning opportunities children have. A program's success thus depends the most on teachers being able to create these learning opportunities and facilitate children's interactions with adults, peers, and the environment in positive and growth-promoting ways.

To guide educators and parents, we find it useful to have a conceptual framework that identifies the most important features of a high-quality educational program. We have developed and presented a general framework for viewing all early childhood education and child care programs known as the Four-Diamond Model (see figure on page 8) (S. Ramey and Ramey, 2005). The Four-Diamond Model applies to all types of early childhood programs for all children from all cultures.

#### **The Four-Diamond Model**



In the center of the model are four connected diamonds, each representing a major element to consider when designing, implementing, and evaluating a prekindergarten program. Scientific research also confirms that these four elements really make a difference in children's outcomes:

- I. Health and Safety Practices: critical to promoting a healthy, active, and safe environment in which children are not at risk for harm and in which they can learn about health-promoting lifestyles
- **2. Individualized Learning and Language Activities:** vital because each child develops uniquely, a fact that is recognized yet all too frequently put aside in classroom and home settings
- **3. Teacher-Child Interactions:** the foundation for welcoming children into the educational setting and building trust, respect, comfort, and excitement about learning
- **4. Teacher-Parent Relationships:** the natural partnership that connects the two major places where children learn, play, and develop. This element also includes how a prekindergarten program helps families become involved in their child's education, understand what is happening at school, and extend learning at home and in the community.

The four diamonds are surrounded by a circle that represents the Supportive Child Care and Education Context. In this circle are features such as the physical, structural, and administrative characteristics that facilitate or hinder a preschool experience. Positive supportive and contextual features include highly qualified teachers who receive ongoing professional development, a well-equipped classroom, technical assistance, and good teacher-to-child ratios.

In the outermost circle are the most distal influences categorized as Favorable Political and Economic Climate and Good Administrative, Fiscal, and Policy Supports. These affect classrooms through the provision of adequate funding, supportive policies, high standards, and stable community support. Collectively, these factors—from the central four diamonds to the more peripheral community-level influences—contribute to a child's future development and positive outcomes.

The InvestiGator Club is based on guiding principles that are consistent with the Four-Diamond Model of high-quality education and care. These principles, grounded in scientific findings, are:

- **Children learn when we teach them.** Explicit teaching couples with child-initiated learning to ensure the presentation and reinforcement of all key skills. Teachers set the stage and then help scaffold and mediate children's learning about themselves and the world around them.
- Children learn by doing. Many scientific studies confirm that children approach the world as though they are young scientists eager to discover answers and to find solutions to problems they encounter. A young child approaches each day as an investigator would, exploring the world around him or her and asking questions, such as What is this? How can I use this? What is the name for this? How can I change things? How can I get better at doing something? and How can I have more fun? Hands-on learning allows children to find answers to their questions.
- **Children learn from each other.** Creating a community of learners is one of the missions of The InvestiGator Club. When children make new discoveries and acquire new skills, they love to share them with others. The program then uses these natural tendencies of young children as the basis for teachers to encourage and reinforce behavior and learning.
- **Children's learning begins at home.** Only by partnering with families can teachers make the most of children's learning potential.

#### **Family Involvement**

The Four-Diamond Model emphasizes that both the early-education and family settings contribute to a child's success. Most parents and caregivers have the same goals for children as their educators: health and safety, social and emotional development, school readiness skills, and secure attachments to adults. Parents and families are as influential as early childhood teachers and, therefore, partnering with them is vital to the success of a prekindergarten program (Farquhar, 2005).

The InvestiGator Club guides teachers to create this partnership. Materials such as the Family Welcome Guide facilitate communication, and take-home activities and ideas for family nights are just a few of the tools provided to develop strong bonds between school and home.

#### Assessment

Evaluating children's progress is an integral part of an early childhood program. Research shows that the effective use of assessment with young children leads to greater gains in learning; teachers who recognize how their children are doing are better able to help them learn (Goldring and Presbrey, 1986; Meisels, Atkins-Burnett, Xue, Bickel, and Son, 2003; VanDerHeyden and Burns, 2005).

A distinctive strength of The InvestiGator Club is its comprehensive Assessment and Intervention System, which helps teachers:

- execute and document authentic and performance assessment to support children's learning and development.
- plan differentiated instruction for each child.
- utilize intervention strategies to further develop skills.
- include families in the assessment process.
- evaluate the program as a whole in order to make adjustments and improvements.

The system includes:

- benchmarks (called objectives) that identify learning goals in ten key domains.
- assessment cards and in-text features that provide opportunities for observational and performance-based assessment.
- assessment forms, including a form for recording anecdotal notes, which are critical to the assessment process (LeLaurin, 1990).
- other assessment management tools, including software that allows teachers to record evaluations in a convenient electronic format.

Teachers create and maintain individualized portfolios in which all assessment materials are stored. These portfolios make it easy for teachers to evaluate each child's progress and tailor curriculum and intervention strategies to specific needs. They also are an effective tool for sharing a child's progress with his or her family.

#### **Professional Development**

"At the heart of the effort to promote quality early childhood programs . . . is a substantial investment in the education and training of those who work with young children" (National Research Council, *Eager to Learn*, 2001). Teachers are undeniably the key to a child's classroom learning. While their experience and ideas are indispensable, they must continually redefine their roles, learn new teaching techniques, and keep informed about current research and best practices.

The InvestiGator Club is committed to providing this critical professional development. The Teacher Resource Guide, online training bulletins, and trained consultants are just a few examples of the ways in which the program helps teachers meet the needs of today's diverse classrooms. Another part of Robert-Leslie's mission is to provide comprehensive professional development institutes in a wide range of topics including effective approaches to learning, assessment, building family relationships, and literacy and language for preschoolers.

### **The Power of Story**

Storytelling is an essential part of any preschool curriculum. Stories attract children by communicating what it means to be human. The very act of hearing a story puts children in the mode of participating in another person's life and provides a way to organize and interpret human experiences. Through stories, children know what people are like, what they do, what they need, and what makes them do what they do; this is the power of story.

"Stories present us not only with memorable pictures, but with dramas. Through the power of the imagination we become vicarious participants in the story, sharing the hero's or heroine's choices and challenges. We literally 'identify' ourselves with our favorite characters, and thus their actions become our actions" (Kilpatrick, 1994). The InvestiGator Club responds to this need for strong characters with Dilly Gator<sup>™</sup> and her friends, who love investigating and finding out about their world. They pool all their talents and interests to create a club to find out about themselves and the world around them. This "big story" forms the context in which the entire program unfolds and is the perfect vehicle for a yearlong adventure in learning. Through the characters, children develop a love of learning; this is the power of characters.

Flapboards<sup>™</sup>,<sup>\*</sup> the new, innovative product unique to The InvestiGator Club, use the power of story to teach science, math, and literacy skills. Each Investigation begins with an interactive story in which Dilly Gator and her friends investigate a problem, make a discovery, or unearth a mystery—while always learning something new. Each story is revealed through four lift-the-flap magnetic Flapboards, which help children:

- make predictions.
- build background.
- access prior knowledge.
- become curious.
- use problem-solving skills.

# **RESEARCH OVERVIEW AND IMPLEMENTATION**

Following is a summary of the research recommendations for major curriculum areas in The InvestiGator Club followed by specific examples of their implementation in the program.

# **Oral Language**

"Oral language is the foundation of early literacy."

—Koralek, 2003

### **Research on Oral Language**

Research repeatedly has shown that a child's oral language skills can greatly influence overall school performance and are directly linked to later reading and writing success. The obvious conclusion is that by promoting oral language skills at the prekindergarten level, teachers lay a strong foundation for children's educational future (IRA and NAEYC, 1998). The research also shows that preschool children are developing the ability to ask and answer questions. They begin with *yes* or *no* questions and move on to questions that begin with *what, where,* and *who.* Finally, they begin to understand and use *when, how,* and *why* questions (Connor, 2002).

Children need daily opportunities to engage in meaningful conversations in which teachers discuss specific topics and elicit detailed responses. The best conversations allow children to express themselves in an open-ended way (Aldridge, 2005; Dickinson and Tabors, 2002).

### **Oral Language in The InvestiGator Club**

Throughout the yearlong program, children are provided with the practice they need to develop a rich and varied listening and speaking vocabulary through:

- Flapboard\* lessons, which invite children to interact with and respond to stories in unique ways.
- daily routines and transitions that spark meaningful discussions and conversations.
- Opening Circle Time lessons that present educational and fun rhymes, songs, finger plays, and chants.
- Small Group and Whole Group lessons that explore language through Oral Language Cards, puppet play, dramatic play, picture books, and storytelling.
- Closing Circle Time choices that invite children to practice new language skills.

Though specific oral language skills are explicitly taught and reviewed, they are reinforced in every activity of this integrated curriculum.

\*Patent pending.

### **Phonological Awareness**

"Phonological awareness is most commonly defined as one's sensitivity to, or explicit awareness of, the phonological structure of words in one's language. In short, it involves the ability to notice, think about, or manipulate the individual sounds in words. . . Phonological awareness is important because it strongly supports learning how the words in our language are represented in print."

-Mathes and Torgesen, 1998

#### **Research on Phonological Awareness**

Research shows that phonological awareness is the single most reliable predictor of future reading success (Blachman, 2000; Juel, 1991; Wagner, Torgesen, and Rashotte, 1994). Performance on phonological awareness tasks also is predictive of later reading difficulties (Lundberg, Olofsson, and Wall, 1980). The best phonological awareness activities also develop phonemic awareness. Children who have phonemic awareness can count the number of sounds in a word and execute segmentation, blending, and substitution.

#### **Phonological Awareness in The InvestiGator Club**

Phonological awareness activities are presented in each week of the yearlong program. The InvestiGator Club provides explicit instruction in the development of the following phonological awareness skills, which increase in difficulty and are reinforced throughout the school year:

**Listening:** Children repeat spoken sounds or identify environmental sounds, including those found on the Listen to Your World<sup>™</sup> CD.

Rhyme: Children recognize and generate rhymes in games, songs, stories, and poems.

**Word awareness:** Children discriminate between different spoken words and repeat words heard orally. Oral Language Cards are a great starting point.

Syllable awareness: Children repeat and clap or use counters to show the syllables heard in words.

**Phonemic awareness:** Included are alliteration, initial and final sound identification, counting, segmentation, blending, and substitution.

The InvestiGator Club also offers:

- a sense of playfulness and fun and the avoidance of drill and rote memorization.
- Small Group settings that encourage interaction among children.
- activities that encourage children's curiosity and experimentation.
- allowances for individual differences.
- a fun and informal tone (Yopp, 1992).

### **Alphabet Knowledge**

Teaching alphabet knowledge is "clearly important because one of a beginning reader's biggest responsibilities is to figure out how our alphabet language works."

—Cunningham and Allington, 1999

#### **Research on Alphabet Knowledge**

Alphabet knowledge, specifically letter naming, has historically been among the reading readiness skills used for the prediction of reading achievement (Snow, Burns, and Griffin, 1998). Research also suggests that a child with automatic and accurate letter-recognition skills will have an easier time learning about letter sounds and word spellings than a child who does not know the alphabet (Adams, 1990; Honig, 1996; Riley, 1996).

There is strong agreement that effective alphabet recognition training includes explicit instruction in recognizing and writing letters with frequent exposure to all kinds of print. Writing letters is another effective way to promote children's letter knowledge; children get a sense of letters, letter sounds, and the purpose of print as they engage in daily writing activities (Wagstaff, 1998).

#### **Alphabet Knowledge in The InvestiGator Club**

To support the development of alphabet recognition skills, The InvestiGator Club provides explicit instruction that helps teachers:

- provide daily opportunities for letter recognition.
- associate letters with their shapes using Magnetic Letters, Daily Routine Posters, and the interactive Alphabet Flapboard\* and Flap Fillers as well as other curriculum materials.
- teach the order of the alphabet using *Dilly's Alphabet Show* and other alphabet books as well as Dilly's Alphabet Cards.
- teach the names of letters and the sounds they make.
- demonstrate how letters are formed when writing using the models on Dilly's Alphabet Cards.
- encourage children to finger-trace or attempt to write letters.
- encourage children to notice beginning letters in their names and familiar words on Daily Routine Posters and other environmental print.

(Adapted from an Early Literacy Learning Model by the Florida Institute of Education.)

\*Patent pending.

### **Concepts of Print**

"Concepts about print are fundamental understandings that support reading acquisition." —Madison Metropolitan School District

#### **Research on Concepts of Print**

Concepts and conventions of print refer to children's knowledge of the functions of print and how language works. Researchers have found that a print-rich environment prepares children to read and write (National Research Council, 1999). Research also shows that children rely heavily on context to "read" environmental print. Although children do not learn to read from environmental print, their experiences help them understand that print has meaning and that groups of letters are meaningful (Vukelich and Christie, 2004).

### **Concepts of Print in The InvestiGator Club**

Concepts of print, print awareness, and book knowledge are fostered in The InvestiGator Club through explicit reading and writing lessons that include the following principles and sample activities:

- **Print is different from pictures.** Daily Routine Posters and other environmental print help children learn to make the distinction.
- **Print has meaning.** Lapbooks, trade books, and Bruno's Buzz<sup>™</sup> Nonfiction Readers convey the meaning of print in a variety of settings and subject areas.
- Print has practical uses. Shared writing and literacy activities explore uses of print.
- **Print has many purposes.** From lists and letters to graphs and charts, activities stretch children's understanding of print.
- Words are made up of letters. In combination with alphabet knowledge activities, literacy and writing activities expand children's word recognition abilities.
- There is an association between spoken and written words. Children follow print as it is read aloud on Daily Routine Posters and other materials around the classroom.

### Writing

"Through early writing experiences, young children learn many of the key aspects of literacy such as print awareness and concepts, functions of print, and possibly phonological awareness."

-National Research Council, 1999

#### **Research on Writing**

Early writing experiences tie together other language development and literacy skills and help prepare children for their school days. According to a joint position statement of the International Reading Association and the National Association for the Education of Young Children (1998), "it is essential and urgent to teach children to read and write competently, enabling them to achieve today's high standards of literacy." No early childhood curriculum is complete without strong shared and independent writing activities.

### Writing in The InvestiGator Club

Writing is integrated throughout the yearlong program:

- Modeled writing: Teachers regularly model good writing strategies and techniques.
- **Shared writing:** Each week of instruction ends with an explicit Closing Circle Time lesson in shared writing. Children work together with the teacher to create experience charts, recipes, stories, cartoons, letters, directions, and so much more.
- Independent writing: In explicit Small Group lessons, children respond to literature through writing, drawing, and speaking. Each Investigation suggests two Writing Centers designed to let children practice writing skills using a variety of tools, including pencils, crayons, markers, computer keyboards, stamps, and clay. Writing Center Cards provide additional support.
- Handwriting and letter formation: Instruction in letter formation is part of each week's alphabet knowledge lessons. Dilly's Alphabet Cards support learning with letter-writing models.

### **Mathematics**

"Mathematics helps children make sense of the physical and social worlds around them. . ." —NAEYC and NCTM, 2005

### **Research on Mathematics**

Research affirms that it is essential that math content be taught in a variety of means to meet the needs of today's diverse classrooms. From infancy on, young children learn number concepts as they count and explore length and distance. Their concept of numbers is limited to smaller numbers, and their understandings are heavily influenced by the context in which they experience number relationships. As a result, not all children have the same skills, concepts, and basic understandings that are shaped and reformulated through experiences (Kamii and Housman, 2000; National Research Council, Adding *It Up*, 2001; Charlesworth, 2004).

### **Mathematics in The InvestiGator Club**

The InvestiGator Club guides teachers through a variety of means, including:

- standards-based explicit lessons in number and operation, geometry and spatial sense, patterns and measurements, and classification and data collection.
- clear teacher direction for building mathematics background and tapping children's prior knowledge.
- purposeful mathematical exploration and discovery.
- mathematical experiences integrated into science investigations through Flapboards\* and Bruno's Buzz Nonfiction Readers.
- literature-based mathematics lessons that utilize trade books.
- engaging math manipulatives and games, including the Magnetic Math Board and Magnetic Numbers.
- authentic mathematics assessment opportunities and tools.

### Science

The U.S. Department of Education recommends that preschool staff "help children develop simple investigations that involve asking questions, making observations, gathering information, drawing conclusions, and communicating findings."

-Dwyer, 2000

#### **Research on Science**

According to the U.S. Department of Education, in the most effective preschool classrooms, "the real world is the subject of learning activities. Children have the opportunity to develop concepts about the natural world..." (Dwyer, 2000). Inquiry-based learning should be at the heart of the science curriculum, and any science learning should be hands-on.

Research also shows that integrating opportunities for scientific thinking and practices, such as keeping a science notebook or making drawings, into children's everyday activities is more effective than constructing a separate science unit (Beatty, 2005).

### Science in The InvestiGator Club

At the core of the InvestiGator Club is "best practices" science—all investigations are built around a specific life, earth, or physical science topic. Science is integrated into the curriculum every day. In particular, The InvestiGator Club includes:

- open-ended, in-depth investigations that lead children through the scientific method at their level of development. They question, form hypotheses, experiment, collect data, draw conclusions, and make meaning while they explore, discover, and play.
- standards-based science lessons that develop scientific skills and methods and scientific knowledge.
- literature-based science lessons, with Bruno's Buzz Nonfiction Readers sized for little hands.
- science and math integration.
- authentic science assessment opportunities and tools.
- content connected to children's real-life experiences.
- at-home, in-school, and in-community data collection activities.

### **Creative Arts**

"Experiencing the same idea in different ways, such as through music and movement, dramatic play, storytelling, and art, reinforces learning."

—Korte, 2005

#### **Research on Creative Arts**

The creative arts play a critical role in a child's need for self-expression and serve as tools for cognitive, linguistic, and social development. They give children the opportunity to express themselves, reflect on their experiences, explore their emotions, and understand their feelings ("Prekindergarten Standards," 2005). As children bring their life experiences into the classroom through art, dramatic play, music, and movement activities, teachers come to know them and their cultural backgrounds in meaningful ways (Stevenson, 2004; Wootton, 2004).

Creative arts experiences also give children a sense of competence and the ability to create something that is valued by others. When a child creates something new, he or she is purposefully engaged and is at the center of the learning experience.

### **Creative Arts in The InvestiGator Club**

The InvestiGator Club embraces the creative arts, not only because of their critical importance in development, but also because they always equal fun! Following are program principles and how they are addressed:

- Allow child-initiated choices. Learning Centers provide opportunities for children to choose preferred methods of expression while maintaining order in the classroom. Teachers are provided activity choices throughout each Investigation, and built into those choices are decisions that children must make.
- Engage children in a process that allows them to explore, create, and reflect on their experiences in the arts. Music, movement, art, and dramatic play are a part of every day in The InvestiGator Club.
- Encourage imagination that comes from children's play. Opportunities for purposeful, imaginative play include music and movement activities, Dramatic Play and Blocks Center activities, open-ended Investigation Station projects, Flapboarding\* experiences, and Investigation Celebrations.
- Place greater emphasis on the process than on the product. Teachers are encouraged to ask questions and probe throughout the creative process, and children are asked to talk about their artworks and what their pieces mean to them. The Great Auntie Lu<sup>™</sup> Art Poster and Art Prints support these practices.
- Integrate the arts through words, gestures, drawings, paintings, sculptures, construction, music, singing, dance, drama, dramatic play, and movement. The creative arts are the perfect vehicle for teaching critical language development and literacy skills, and nothing is more fun than singing and acting out what has been learned.

\*Patent pending.

### **Social and Emotional Development**

"A child's social experiences with other children in the preschool years help him develop social skills and confidence that . . . enhance the child's social competence. Conversely, children who fail to develop minimal social competence . . . are at significant risk to drop out of school, become delinquent, and experience mental health problems in adulthood."

-NAEYC, 1996

#### **Research on Social and Emotional Development**

An NAEYC position paper concludes that "... play serves important functions in children's physical, emotional, and social development... During play a child can learn to deal with emotions, to interact with others, to resolve conflicts, and to gain a sense of competence ..." (NAEYC, 1996). "Emotional well-being is 'dramatically and positively predictive not only of academic achievement, but also of satisfactory and productive experiences. . .even of better physical health" (Stern, 2000). With the help of caring teachers, peers, and families, children can develop these necessary skills and grow to their full potential.

### Social and Emotional Development in The InvestiGator Club

The InvestiGator Club makes the most of daily opportunities to help children develop social and emotional skills through the relationships they have with caregivers and peers, including:

- planned activities that use Dilly and Friends<sup>™</sup> Lapbooks and Puppets to explicitly teach key social and emotional skills.
- positive reinforcement of skills throughout the day.
- modeling of good behavior by teachers and other adults.
- opportunities for self-directed play and problem solving.

# Conclusion

The InvestiGator Club represents an innovative and sound approach to early childhood education. It has taken into account the effective principles of learning and implements evidence-based practices through topics that are certain to interest young learners from all walks of life. The emphasis on the importance of family involvement, assessment, and professional development helps scaffold the learning established by the strong research base. And the program and its characters are not static—they have been developed to be responsive to new research findings as well as the teachers and children who grow to love them.

# **Bibliography**

Adams, M. J. (1990). Beginning to Read: Thinking and Learning About Print. Cambridge, MA: MIT Press.

Aldridge, J. (2005). The Importance of Oral Language. Association for Childhood Education International, Spring 2005.

Beatty, A. (2005). Mathematical and Scientific Development in Early Childhood: A Workshop Summary. Washington, DC: National Academy Press, p. 7.

Blachman, B. A. (2000). "Phonological Awareness." In M. Kamil, P. B. Mosenthal, P. D. Pearson, and R. Barr (Eds.), *Handbook of Reading Research*, 3, pp. 483–502.

Charlesworth, R. (2004). Experiences in Math for Young Children, Fifth Edition. Delmar, NY.

Connor, C. M. (2002). "Oral Language Development in Preschool: Intricate Links to Literacy." Presentation at the University of Michigan CIERA Summer Institute.

Cunningham, P. M. and Allington, R. L. (1999). *Classrooms that Work: They Can All Read and Write*. New York: Longman.

Dickinson, D. and Tabors, P. (2002). "Fostering Language and Literacy in Classrooms and Homes." Young Children, 57, pp. 10–18.

Dunst, C. J., Trivette, C. M., and Cutspec, P. A. (2002). "Toward an Operational Definition of Evidence-Based Practices." *Centerscope*, 1(1), p. 1.

Dwyer, M. C. et al. (2000). Building Strong Foundations for Early Learning: Guide to High-Quality Early Childhood Education Programs. Washington, DC: U.S. Department of Education, Planning and Evaluation Service, p. 18.

Farquhar, S. (2005). "The Role of Parents and Family in Children's Early Education." www.childforum.com/article\_details.asp?REF\_NO=8.

Florida Institute of Education (2001–2002). Early Literacy Learning Model.

Goldring, E. B. and Presbrey, L. S. (1986). "Evaluating Preschool Programs: A Meta-Analytic Approach." *Educational Evaluation and Policy Analysis*, 8, pp. 179–188.

Honig, B. (1996). Teaching Our Children to Read: The Role of Skills in a Comprehensive Reading Program. Thousand Oaks, CA: Corwin Press.

IRA and NAEYC (1998). Joint Position Statement: "Learning to Read and Write: Developmentally Appropriate Practices for Young Children." Young Children, 53(4), pp. 30–46.

Juel, C. (1991). "Beginning Reading." In R. Barr, M. Kamil, P. B. Mosenthal, and P. D. Pearson (Eds.), Handbook of Reading Research, 2, pp. 759–788.

Kamii, C. and Housman, L. B. (2000). Young Children Reinvent Arithmetic: Implications of Piaget's Theory, Second Edition. New York: Teachers College Press.

Kilpatrick, W. (1994). Books That Build Character: A Guide to Teaching Your Child Moral Values Through Stories. New York: Touchstone Press, p. 21.

Koralek, D. (Ed.) 2003. Spotlight on Young Children and Language. Washington, DC: NAEYC, p. 4.

Korte, K. M. et al. (2005). "To Run, Stomp, or Study: Hissing Cockroaches in the Classroom." Young Children, 60(2), pp. 12–18.

LeLaurin, K. (1990). "Judgment-Based Assessment: Making the Implicit Explicit." Topics in Early Childhood Special Education, 10, pp. 96–110.

Lundberg, I., Olofsson, A., and Wall, S. (1980). "Reading and Spelling Skills in the First School Years Predicted from Phonemic Awareness Skills in Kindergarten." *Scandinavian Journal of Psychology*, 21, pp. 159–173.

Madison Metropolitan School District. www.madison.k12.wi.us/tnl/langarts/concepts.htm. Accessed July 18, 2006.

Mathes, P. G. and Torgesen, J. K. (1998). "All Children Can Learn to Read: Critical Care for Students with Special Needs." *Peabody Journal of Education*, 73, pp. 317–340.

Meisels, S. J., Atkins-Burnett, S., Xue, Y., Bickel, D. D., and Son, S. (2003). "Creating a System of Accountability: The Impact of Instructional Assessment on Elementary Children's Achievement Test Scores." *Education Policy Analysis Archives*, 11(9), pp. 1–18.

NAEYC (1996). Position Statement: "Principles of Child Development and Learning that Inform Developmentally Appropriate Practice."

NAEYC and NCTM (2005). Joint Position Statement: "Early Childhood Mathematics: Promoting Good Beginnings."

National Research Council (2001). *Eager to Learn: Educating Our Preschoolers*. Washington, DC: National Academy Press, p. 13.

National Research Council (2001). In J. Kilpatrick, J. Swafford, and B. Findell (Eds.), Adding It Up: Helping Children Learn Mathematics. Mathematics Learning Study Committee, Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

National Research Council (1999). Starting Out Right: A Guide to Promoting Children's Reading Success. Washington, DC: National Academy Press, p. 29.

"Prekindergarten Standards: Guidelines for Teaching and Learning: Emphasizing the Importance of the Visual Arts in Early Childhood Programs" (2005). *Early Childhood Today*, 19(5), p. 10.

Ramey, C. T. and Ramey, S. L. (1999). Right from Birth: Building Your Child's Foundation for Life. New York: Goddard Press.

Ramey, C. T. and Ramey, S. L. (2004). "Early Learning and School Readiness: Can Early Intervention Make a Difference?" *Merrill-Palmer Quarterly*, 50, pp. 471–491.

Ramey, C. T., Ramey, S. L., and Lanzi, R. G. (2006). "The Health and Education of Young Children: Theory, Intervention Research, and Public Policy." In I. Sigel and A. Renninger (Eds.), *The Handbook of Child Psychology*. Hoboken, NJ: Wiley and Sons, pp. 864–892.

Ramey, S. L. and Ramey, C. T. (1999). Going to School: How to Help Your Child Succeed. New York: Goddard Press.

Ramey, S. L. and Ramey, C. T. (2005). "How to Create and Sustain a High-Quality Workforce in Child Care, Early Intervention, and School Readiness Programs." In M. Zaslow and I. Martinez-Beck (Eds.), *Critical Issues in Early Childhood Professional Development*. Baltimore: Paul H. Brookes Publishing, pp. 355–368.

Riley, J. (1996). The Teaching of Reading. London: Paul Chapman Publishing.

Snow, C., Burns, S., and Griffin, P. (Eds.) (1998). Preventing Reading Difficulties in Young Children. National Research Council.

Stern, R. (2000). "Social and Emotional Learning: What Is It? How Can We Use It to Help Our Children?" www.aboutourkids.org/aboutour/articles/socialemotional.html. Accessed July 18, 2006.

Stevenson, L. (2004). The Arts and School Change. Washington, DC: Arts Education Partnership.

VanDerHeyden, A. M. and Burns, M. K. (2005). "Using Curriculum-Based Assessment and Curriculum-Based Measurement to Guide Elementary Mathematics Instruction: Effect on Individual and Group Accountability Scores." Assessment for Effective Instruction, 30, pp. 15–31.

Vukelich, C. and Christie, J. (2004). Building a Foundation for Preschool Literacy: Effective Instruction for Children's Reading and Writing Development. Newark, DE: International Reading Association, p. 23.

Wagner, R. K., Torgesen, J. K., and Rashotte, C. A. (1994). "The Development of Reading-Related Phonological Processing Abilities: New Evidence of Bi-Directional Causality from Latent Variable Longitudinal Study." *Developmental Psychology*, 30, pp. 73–87.

Wagstaff, J. M. (1998). "Building Practical Knowledge of Letter-Sound Correspondences: A Beginner's Word Wall and Beyond." *The Reading Teacher*, 52, pp. 298–304.

Wootton, K. (2004). "Community This and Community That." In L. Smyth and L. Stevenson, You Want to Be a Part of Everything: The Arts, Community, and Learning. Washington, DC: Arts Education Partnership.

Yopp, H. K. (1992). "Developing Phonemic Awareness in Young Children." Reading Teacher, 45(9), pp. 696–703.



1007 Church Street Suite 420 Evanston, Illinois 60201

www.investigatorclub.com

