

# Preface

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*You Don't Know Jack!*

I have always liked my men tall, dark, and handsome. I never thought I'd fall for a short, bald guy. But here I am in love. With Jack. He has blue eyes and pretty sparse light brown hair. When he smiles at me, he makes me the happiest woman alive . . . even though he is missing many teeth. Not a tall guy, Jack stands at about 32 inches.

Yes, I am finally in a club I couldn't wait to join. I am a grandmother.

From the moment my daughter-in-law Amy and my son Josh became pregnant I couldn't stop thinking about . . . this baby's brain. I started my career teaching prekindergarten and kindergarten, but since then I have taught at all levels. I have been immersed in brain research as it has so miraculously unfolded over the past 20 years. I have translated it for educators and applied it at all levels. But this pregnancy caused me to take a closer look at the brain as it develops. And I am amazed.

There has been much research of late about the adolescent brain. I voraciously read the research and have shared my reactions, applications, and suggestions to teachers and parents all over the world. In writing my books, I have covered brain development. But there were always pieces missing. It seems that some information about brain development from birth to age three was available, and then most of the literature jumped to the adolescent brain. What was happening really between birth and eight? The literature would read, "From the terrible twos, when the child has an abundance of connections, pruning begins to take place." The next thing I knew, I was reading about puberty!

After hearing the exciting news of the pregnancy, I knew I had to find whatever information was available about those missing years. Since then, I have been reviewing the research on early brain development and its implications. I have gathered information from neuroscience, cognitive psychology, and child development and have been able to outline the brain's development from birth through adolescence. From attending conferences on the brain in early childhood to having personal conversations with some of the well-known early childhood experts, I have learned fascinating things.

We have all read about the importance of the first three years. I will describe those ages of development along with behaviors and suggestions, and then I will focus on the ages from three through eight. Why? This is when most

children come in contact with educators. These are the ages for which public and private education must design appropriate curricula. These are the ages when teachers can begin to make a difference.

As teachers, we have the unique and overwhelming responsibility of changing children's brains on a daily basis. We have the opportunity to take children from varied backgrounds and nurture them. We have the power to influence the development of successful people who are enlightened citizens and caring individuals.

Time and again the research has shown us that development is a combination of nature and nurture. DNA provides the blueprint that the brain will follow as it unravels its mysteries, and we can provide the nurturing to make the most of its development.

As the neuroscientists who wrote *The Scientist in the Crib* (Gopnik, Meltzoff, & Kuhl, 1999) so eloquently state,

Nurture is our nature, and the drive to learn is our most important instinct.

In this book you will get to know Jack and other young children as they grow and develop. I will provide you with a design of how the brain develops at each age level. Keep in mind two things:

1. Children grow at individual paces. There can be a large variance in brain development.
2. Boys and girls develop differently. Brain development in girls is generally faster than in boys, just as their physical development is accelerated.

I have provided you with the best research that I have been able to acquire. There are many researchers responsible for this new area of understanding. I am so appreciative of the work of the following experts: Harriett Arnold, Laura Berk, Maurice Elias, Lise Eliot, Alison Gopnik, Jane Healy, Elinore Chapman Herschkowitz, Norbert Herschkowitz, Jerome Kagan, Andrew Meltzoff, Patricia Kuhl, Chip Wood, the National Research Council Institute of Medicine, and the American Academy of Pediatrics. There are many more neuroscientists, cognitive psychologists, and child development experts working in the area of early childhood. The National Association for the Education of Young Children works diligently to provide information to help all young children learn.

I also want to thank my colleagues who interpret the research. By sharing and comparing, we try to present the best applications possible. I am especially grateful to Carla Hannaford, Eric Jensen, Kathy Nunley, David Sousa, Robert Sylwester, Donna Tileston, Pat Wolfe, and Rick Wormeli.

This book would not have been possible without the guidance of Faye Zucker, Stacy Wagner, and my new editor, Hudson Perigo. These professionals along with their excellent staff provided gentle guidance through the process of writing this book.

I hope you find this to be a sensible guide to help you understand the students in your classroom and to help you design the best learning experiences possible.

No, you don't know Jack, but you soon will!

