SNAICC National Conference
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The Abecedarian Approach

and

Highlights of Research Findings from Abecedarian Studies

By: Dr Joseph Sparling

The keynote speach by Dr Joseph Sparling to the SNAICC National Conference Alice Springs was based around the following two papers. The first , *The Abecadarian Approach*, is based on the practice; the second is based around *Highlights of Research Findings.*

Joseph Sparling, PhD, is an early childhood educator and former teacher and principal, is Research Professor at Georgetown University, Fellow of the Frank Porter Child Development Institute of the University of North Carolina at Chapel Hill, and the first author of *LearningGames®,* Partners for Learning, and Conversation Books, educational resources that have been used widely in the United States. He has also developed curriculum and provided training and intervention services for orphanages in Romania.

Sparling was a co-principal investigator on the Abecedarian studies, three longitudinal research projects conducted over 30 years with at-risk children. Through this research, he demonstrated the efficacy of early childhood education by developing simple tools that doubled children's learning capacity and improved their health, social emotional well-being, employment and other life outcomes.

His landmark Carolina Abecedarian project was a combined early intervention for children of poor and minority families with child care and used an experimental design project involving experiment and comparison groups. Results indicated that by the age of eight, children who received preschool intervention subsequently performed better academically than those who had no preschool experience. Benefits were gained regardless of disadvantage, family factors and other contextual issues.

In mid-2010, Sparling was an academic visitor for two months at the University of Melbourne, where he conducted research into the potential implementation of the Abecedarian Approach in Australia (titled 'the 3A concept'). His visit raised interest regarding the applicability of the 3A concept to Aboriginal and Torres Strait Islander children and famiies.

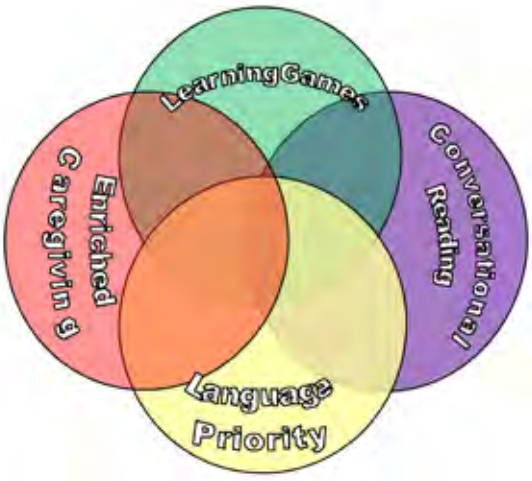
Sparling is currently on a study trip in Australia with the support of SNAICC to consult further on the 3A concept with relevant government, community and Aboriginal and Torres Strait Islander representatives.

A recorded interview with Melbourne Graduate School of Education can be heard at wwww.snaicc.asn.au/policy/conference or at http://upclose.unimelb.edu.au/episode/285.

The Abecedarian Approach

The Abecedarian Approach is a suite of teaching and learning strategies that were developed for and tested in the Abecedarian Studies, three longitudinal investigations to test the power of high quality early childhood services to improve the later academic achievement of children from at-risk and under-resourced families. The long term positive results of these randomised, controlled trials are now known throughout the world and form a major part of the evidence that supports our current belief in the efficacy of high quality early childhood programs.

The Abecedarian Approach is comprised of these elements:



The Abecedarian elements can be used in classrooms, family day care, parent groups, and home visits – and can provide a link between these service components. In the Abecedarian Studies, these elements were used in long day care combined with home visits and/or parent groups.

LearningGames.

LearningGames is a set of 200 individualized, game-like activities that are shared between an adult and 1 or 2 children. Each child experiences at least 1 or 2 LearningGames episodes per day. They include many items that are familiar to parents and teachers. They are based on the concepts of Vygotsky and Piaget and can be thought of as "bite-size pieces of curriculum."

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There are 3 types of games:

- Games that are seamlessly integrated into the routines of caregiving
- Games in which the adult joins and enriches in-progress child play
- Games in which the adult initiates an interaction, inviting the child to join in.

These are basic principles of *LearningGames:*

- Simple but deep
- Focuses on adult-child interaction (mainly 1-on-1 interactions & some small group experiences)
- Made up of individual items (pages) that teachers can use but can also be given to parents – parents and teachers use the same materials
- Flexible – used in different types of programs (including day care and home visiting).

Conversational reading

The second element of the Abecedarian Approach is modelled on the way parents and children read together rather than the way reading typically occurs in the classroom. Conversational reading is based on the concept of "joint attention." In the Abecedarian Approach every child (age 0-3) is read to individually each day, and pairs of children ages 3-4 are read to each day.

These are basic principles of Conversational Reading:

- Goes back and forth, like a conversation
- Appropriate from infancy through age four (or older)
- Engages one or two children at a time
- Employs an easy and memorable strategy consisting of only three parts (3S is the memory aid for these three parts)
- The 3 S's are used as stair steps, each a little more advanced that the last
- Can be used by both educators and parents.

Language Priority

In the third element of the Abecedarian Approach, educators and parents emphasise language throughout the day. They respond warmly whenever children make an attempt to "talk" to them. They try to create longer "conversations" with individual children. The 3N Strategy (notice, nudge, narrate) is used to turn any event into an occasion for rich language stimulation.

These are basic principles of Language Priority:

- Emphasise language in every event of the day
- Respond to children's language overtures
- Extend "conversations" so that they include several turns on the same topic (extended discourse)
- Use a strategy (e.g., 3N) for surrounding spontaneous events with adult language
- Share language priority techniques and explain the importance of language with the child's family.

Enriched caregiving

The Abecedarian curriculum approach affirms that, in the first five years of life, education and caregiving cannot and should not be thought of as distinctly different activities. The phrase "enriched caregiving" is intended to remind all of us (researchers, parents, caregivers, teachers, and program administrators) that "care" for an infant or young child can and should do several things at once.

Care can meet the vital needs that support life and stimulate growth while also being responsive to the individual child's own preferences, abilities, and life situation. Further, care frequently can be enriched with educational content.

By highlighting the pivotal role of care in the education of young children, the Abecedarian approach imbues all of the child's day with educational meaning.

Basic principles of enriched caregiving:

- If possible, divide your group so that each adult has a specific group of children she always cares for (or does most of the care for)
- Respond as quickly as possible, do not wait until the child has cried a lot before going to him or her
- Take educational advantage of the fact that you are in close physical contact with the child during most caregiving routines (speak softly and directly to the child, with eye contact)
- Explain the process of what you are doing and name the objects you touch during care routines (and when the child is ready, invite the child to take the lead in naming the caregiving actions and associated objects)
- Ask questions about what will come next
- Let the child have specific responsibilities during care routines
- Put some appropriate educational materials near the scene of a caregiving event
- Think about the educational content (for example naming colors, textures, or counting) that might fit into a care routine – and include it
- Repeat, repeat, repeat.

End article 1: The Abecedarian Approach

Highlights of Research Findings from the Abecedarian Studies

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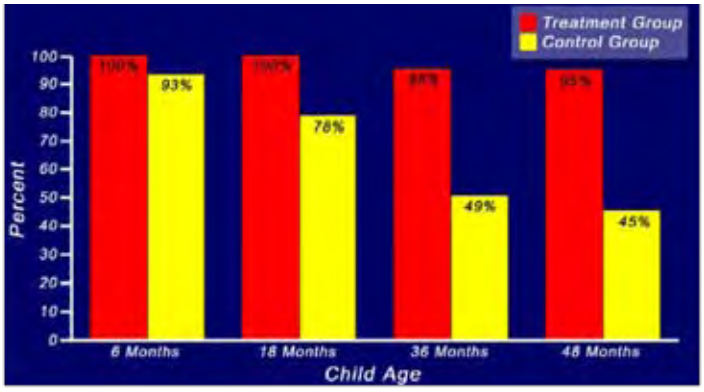
A series of randomised controlled trials (RCT's) called "the Abecedarian studies" demonstrate the significant benefits of high-quality early childhood education for poor and at-risk children and their families. Children in the studies included those at risk from multiple social conditions such as poverty, young maternal age, or low parental education. Other children in two orphanage studies were at risk because of parental abandonment. Importantly, children in some of the studies came from a wide range of social classes. Many of these children had no additional risk other than being born at low birth weight or with cerebral palsy. Each Abecedarian study used *LearningGames®* as a core component of the educational program delivered through center and/or home intervention. Abecedarian Study 1 began in 1972, and follow-up data were collected through 2009. These are the RTC's:

Randomized Controlled Trials		Location	Duration of Program	Type of Program	Oldest Age of follow-up
Abecedarian Study 1 (The Abecedarian Project)		Chapel Hill, NC	Birth to 5 years	Center + social work home visits	30 years
Abecedarian Study 2 (CARE)		Chapel Hill, NC	Birth to 5 years	Center + educational home visits	20 years
Infant Health and Development Program	Abecedarian Study 3	Boston, MA	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 4	New Haven, CT	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 5	Bronx, NY	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 6	Philadelphia, PA	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 7	Miami, FL	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 8	Little Rock, AK	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 9	Dallas, TX	Birth to 3 years	Center + educational home visits	18 years
	Abecedarian Study 10	Seattle, WA	Birth to 3 years	Center + educational home visits	18 years
Abecedarian Study 11 (Cerebral Palsy Study)		Baltimore, MD	Age 1 year to age 2 years	Parent training for home intervention	2 years
Abecedarian Study 12 (Orphanage Study 1)		Iaşi, Romania	Age 1 year to age 2 years	Home (small group in orphanage)	2 years
Abecedarian Study 13 (Orphanage Study 2)		Iaşi, Romania	Age 2 years to age 3 years	Home (small group in orphanage)	3 years

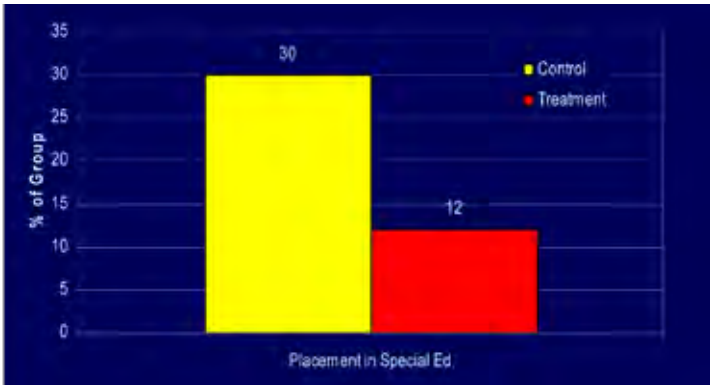
What were some of the outcomes for participants in these scientific investigations?

The following paragraphs and figures highlight some key findings, first in the early years of life, then in the middle and adolescent years, and then in the young adult years. Finally, findings are presented for the parents of the children who were enrolled in the Abecedarian program.



Percentage of child sample in normal IQ range (>84) by age

Almost all of the at risk children in both the experimental and control groups of Abecedarian Study 1 were in the normal IQ range at the beginning of the study. Most of those who received the Abecedarian intervention continued to stay in the normal IQ range, while more than half of those who did not receive the intervention fell out of the normal range by 48 months of age. This decline is seen in the descending yellow bars in the accompanying figure (Martin, Ramey, & Ramey, 1990).



Special education placements by age 15

When the at-risk young children entered public school, those who did not receive the Abecedarian enriched educational child care program in the first 5 years of life were more than twice as likely to be placed in special education for 1 or more years by the time they reached age 15 (Ramey & Ramey, 1999).

Adolescent outcomes for low birth weight babies

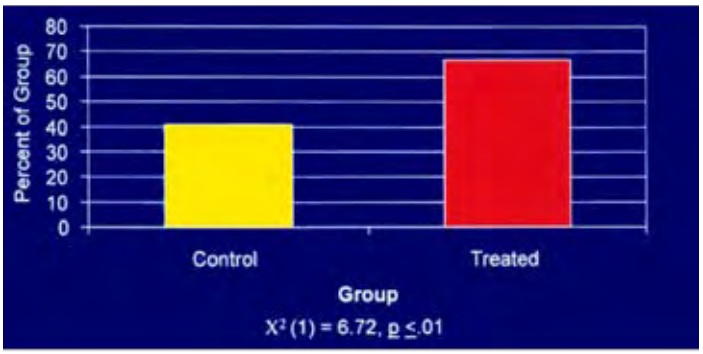
What about the results for low birth weight babies who received the Abecedarian program? When the intervention and control groups (pooled from eight sites in Abecedarian Studies 3-10) were compared at age 18. The intervention group in the 2000–2500 grams birth weight range had these characteristics:

- higher math achievement
- higher receptive vocabulary
- fewer risk taking behaviors (McCormick et al., 2006).

These long term, positive findings are particularly encouraging because they were achieved in a program that lasted from birth to 36 months of age rather than from birth to 60 months of age as in Abecedarian Studies 1 and 2. They underscore the importance of the first 3 years of life. www.TeachingStrategies.com Toll Free: 1.800.637.3652

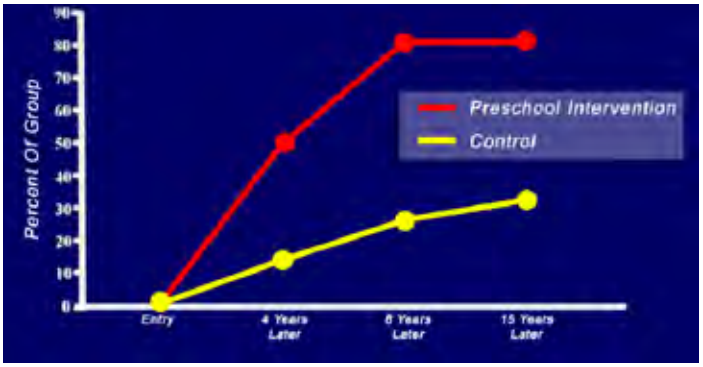
Percentage of young adults in a skilled job or higher education

At age 21, almost 70% of the young adults who had received the Abecedarian intervention in the infancy and preschool years were attending a 4 year college or were employed in a skilled job (such as an electrician or higher), compared to about 40% of those who did not receive the preschool intervention (Campbell, Ramey, et al., 2002).



Post High School Education for Teen Mothers of Children Studied

Not only did the children benefit, but benefits accrued for the mothers of the children who received the Abecedarian program. In Abecedarian Study 1, over a third of the parents of the infants enrolled were teenagers. About 80% of the teen mothers whose infants received the Abecedarian program continued on to get post-secondary education, compared to about 30% of teen mothers whose infants did not receive the Abecedarian program. As seen in the red line in the accompanying figure, the teen mothers continued to get more education for as long as 8 years after their children entered the program (Ramey et al., 2000,).



Behavior of parents who received training in key parts of the Abecedarian approach (LearningGames and Conversational Reading)

In addition to the Abecedarian studies, a national study was commissioned by the U.S. Department of Education's Institute of Education Sciences of the use of some of the elements of the Abecedarian curriculum approach in Even Start programs.

This RCT was conducted in 120 sites across the USA and analyzed measurements from 2,430 parents and 2,790 3- and 4-year old children. In randomly selected sites, the parents received a parent education program using *LearningGames*, conversational reading, and enriched caregiving as important program components. Outcome variables for the study included parental responsiveness to child and parental interactive reading skill. Both variables were coded from videotaped parent–child interaction sessions. The study produced these parent findings:

1. An Abecedarian parent education program can increase parental responsiveness to child and parental interactive reading skill (Judkins et al., 2008, p.90).

2. These parent behaviors are increased by a combined classroom plus parent education program (Judkins et al., 2008, Table K-3). www. TeachingStrategies.com Toll Free: 1.800.637.3652 Page 3

3. Adding the parent education element creates parent effects above and beyond providing the classroom element alone (Judkins et al, 2008, Table K4).

These findings are presented in statistical form in the table below.

Of interest, one of the measured parent behaviors (responsiveness to child) is positively and significantly correlated to child literacy outcomes and social outcomes (Judkins et al., 2008, Table 7-1, p. 111).

What curriculum approach produced these multiple, long-term results?

The Abecedarian Approach is comprised of (1) LearningGames, (2) conversational reading, (3) enriched caregiving, and (4) a comprehensive conceptual framework such as The Creative Curriculum®. In the various Abecedarian studies, these components have been combined and typically delivered through center-based child care and parent education.

LearningGames is the set of adult-child interaction games originally developed for Abecedarian Study 1, and it has been used consistently in all of the Abecedarian studies, even when the other curriculum components were not used. In the cerebral palsy study, LearningGames was the only Abecedarian component used. Beyond these scientific studies, LearningGames has been implemented successfully in a variety of service–delivery modalities:

- home visiting
- parent education classes
- family child care homes
- child care centers
- pre-K classes
- family literacy programs.

In home visiting, *LearningGames* can be used as a stand-alone curriculum or in conjunction with other curricula, especially Partners for a Healthy Baby.

	Effects of Combined Curricula on Parents (ECE/PE vs. control)			**Incremental Effects of Parenting Curriculum on Parents** (ECE/PE vs. ECE only)		
Parent Outcomes	Effect size	95% CI	p-Value	Effect size	95% CI	p-Value
Interactive reading skill	0.50	0.29,0.71	0.000	0.48	0.29,0.67	0.000
Responsiveness to child	0.18	0.01,0.35	0.032	0.23	0.06,0.40	0.006

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