

DEAN'S LECTURE SERIES 2011
Monday 17 October 6pm - 7pm



THE UNIVERSITY OF
MELBOURNE

Evidence-based early childhood education in Australia: the Abecedarian Approach

Professor Joseph Sparling



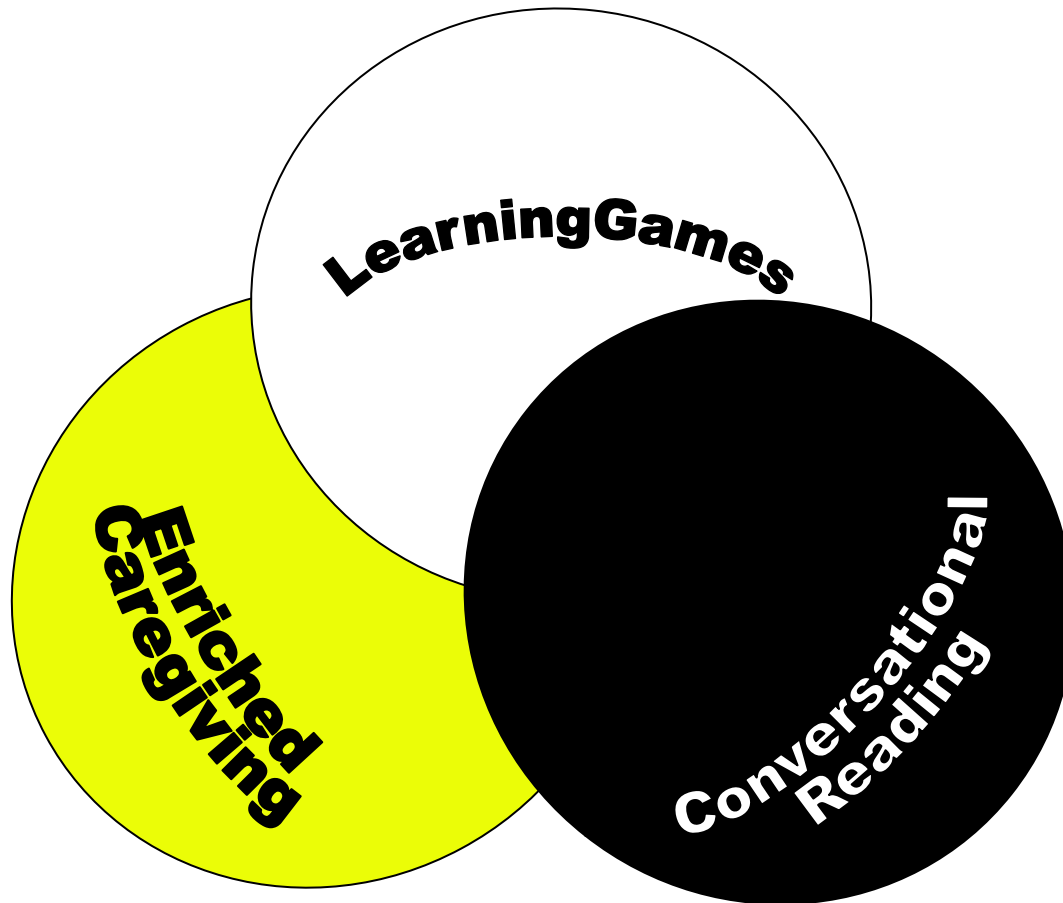


a·be·ce·dar·i·an (a' bē · cē · dâr' ē · ən)

noun, adjective

one learning the rudiments of something (as the alphabet) *Etymology: Middle English abecedary, from Medieval Latin abecedarium, alphabet, from Late Latin, neuter of abecedarius of the alphabet, from the letters a + b + c + d*







Adult-Child Interaction

individual, frequent, intentional



- **LearningGames:** Educators daily engage every child in at least 1 interactive game (individually for every child under age 3, and individually or in pairs of children age 3 and 4).
- **Conversational Reading:** Educators use the 3S strategy to interactively read at least 1 book every day to every child (individually to every child under age 3, and with pairs of children age 3 and 4).
- **Enriched Caregiving:** Educators use the 3N strategy. They encourage children to practice skills (e.g., cooperating, listening, counting, colour recognition) during care routines.

All 3 elements of the Abecedarian Approach Australia are shared with parents.



| Randomized Samples | Location | N | Duration of Program | Type of Program | Oldest age of follow-up | |
|--|---------------------------|--------------------------------|----------------------------------|--|----------------------------------|--------|
| Abecedarian 1 (The Abecedarian Project) | Chapel Hill, NC | 111 children | Birth to age 5 years | Center + social work + home visits + health care | age 30 | |
| Abecedarian 2 (Project CARE) | Chapel Hill, NC | 64 children | Birth to age 5 years | Center + social work + educational home visits + health care | age 21 | |
| Infant Health and Development Program (IHDP) | Abecedarian 3 | Boston, MA | 138 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 4 | New Haven, CT | 112 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 5 | Bronx, NY | 138 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 6 | Philadelphia, PA | 101 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 7 | Miami, FL | 100 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 8 | Little Rock, AK | 128 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 9 | Dallas, TX | 137 children | Birth to age 3 years | Center + educational home visits | age 18 |
| | Abecedarian 10 | Seattle, WA | 131 children | Birth to age 3 years | Center + educational home visits | age 18 |
| Abecedarian 11 (Cerebral Palsy Study) | Baltimore, MD | 48 children | Age 1 to 2 years | Parent training for home intervention | age 2 | |
| Abecedarian 12 (Orphanage Study 1) | Iasi, Romania | 65 children | Age 1 to 2 years | Home (small group in orphanage) | age 2 | |
| Abecedarian 13 (Orphanage Study 2) | Iasi, Romania | 104 children | Age 2 to 3 years | Home (small group in orphanage) | age 3 years | |
| Abecedarian 14 (CLIO Study) | USA, national | 2,430 parents | Age 3 to 4 years | Preschool + daily parent education groups | age 5 | |
| Abecedarian 15 (Massachusetts Family Child Care Study) | Massachusetts, state-wide | 150 family childcare educators | 2 years (between Birth to 5 yrs) | Family day care homes | educator data only | |



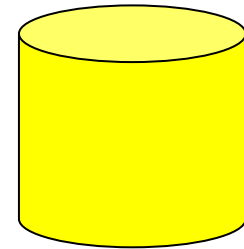
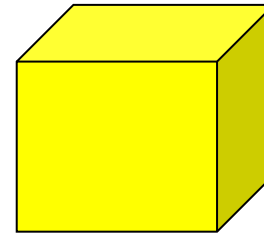
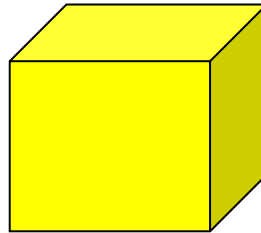
A 2007
National
Geographic
program
on brain
development
featured the
Abecedarian
Approach



<http://www.youtube.com/watch?v=xSbX-dJMjmM>

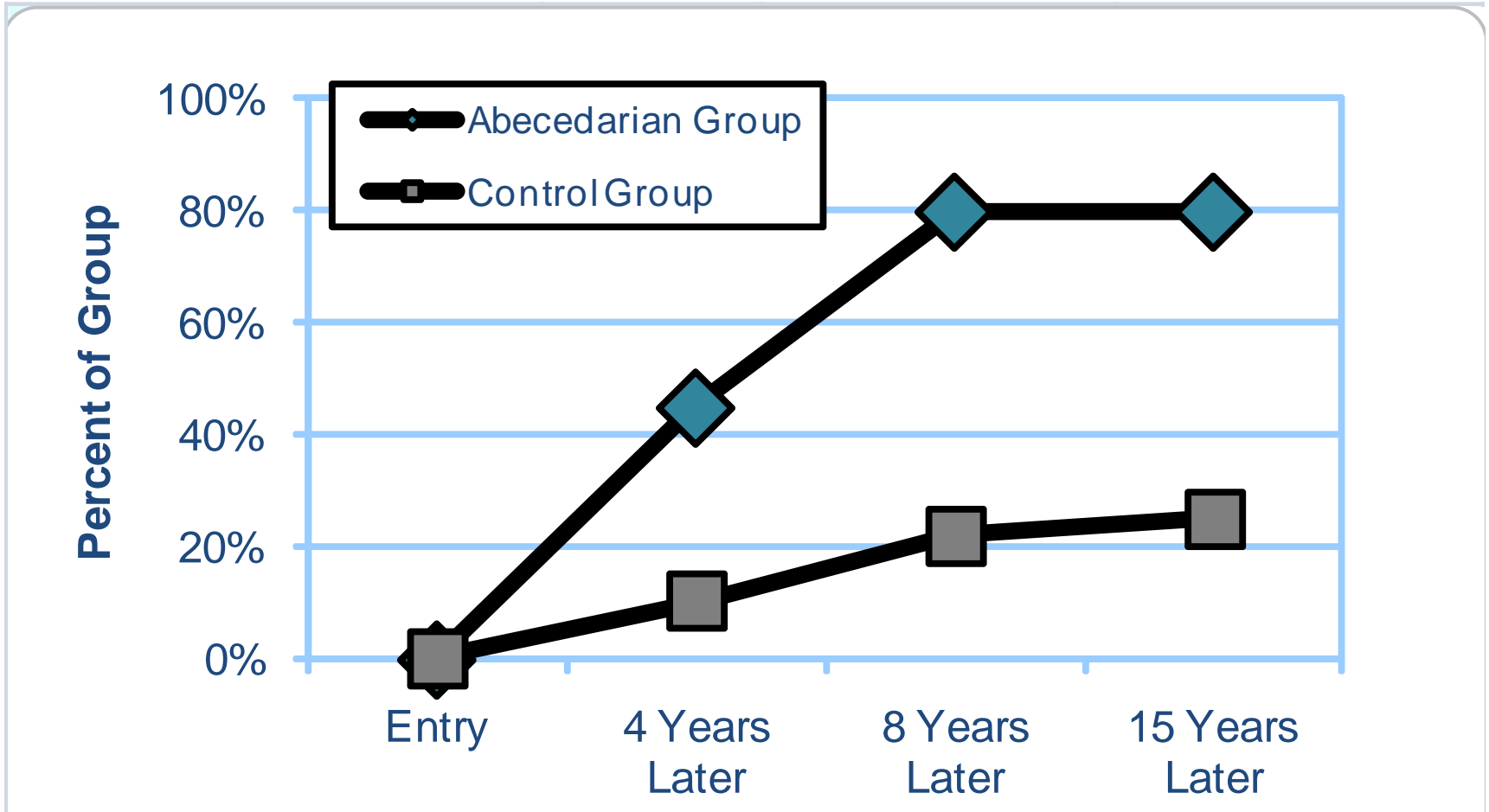
Remember the yellow blocks in the video?

- 2 the same and 1 different
- Does this contain a basic rule of learning?
- Why is it an easy way to begin matching?





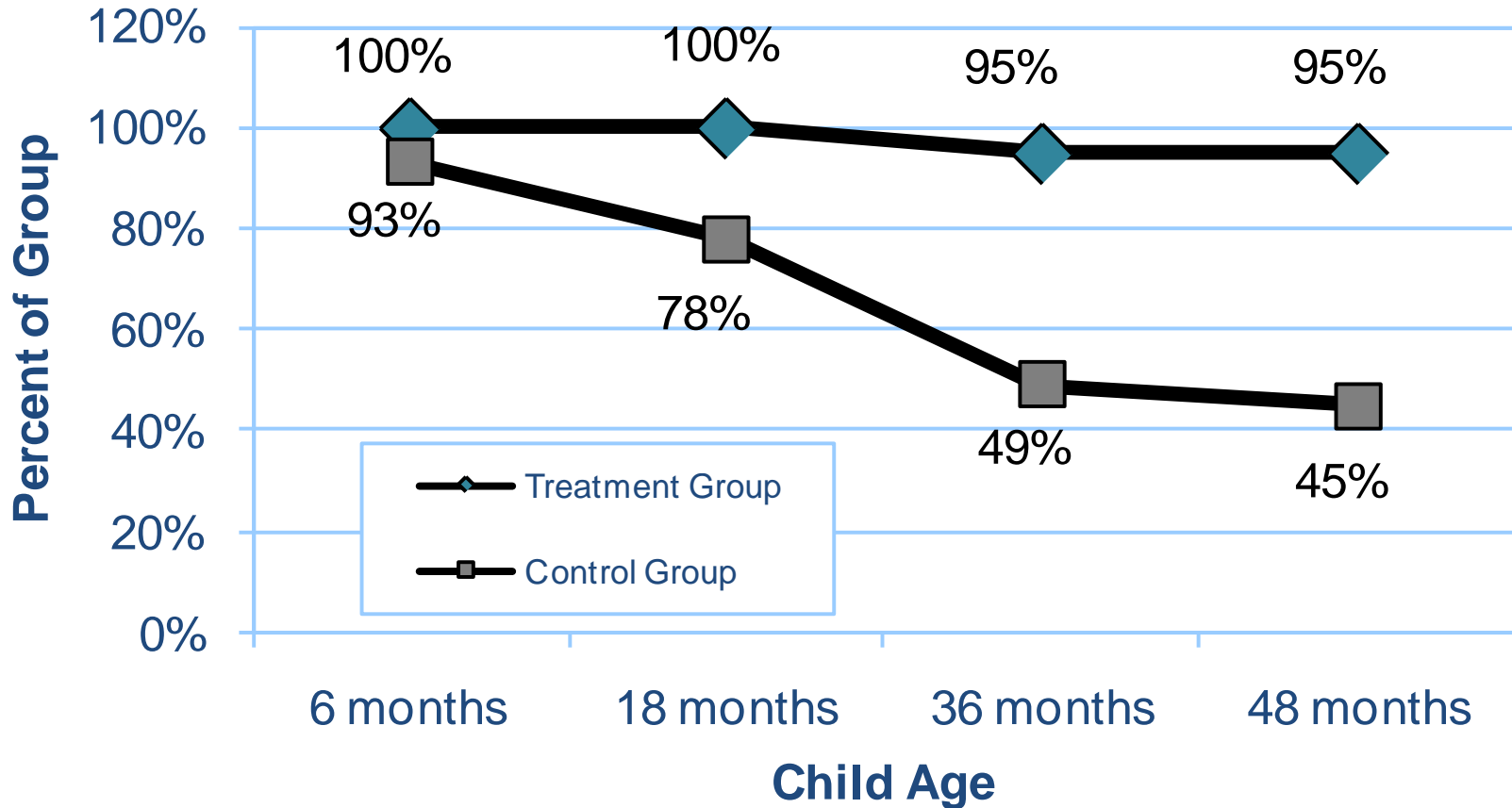
Post-high school education for teen mothers whose children were in the Abecedarian Project



Ramey et al. (2000). *Applied Developmental Science*.



Child IQ across the first 4 years (in the normal range, > 84)



Martin, Ramey, & Ramey. (1990). *American Journal of Public Health*.



Important and rapid cognitive growth happens very early in life.

If we wait until age 3 or 4 to enroll the most vulnerable children, they will enter far behind.

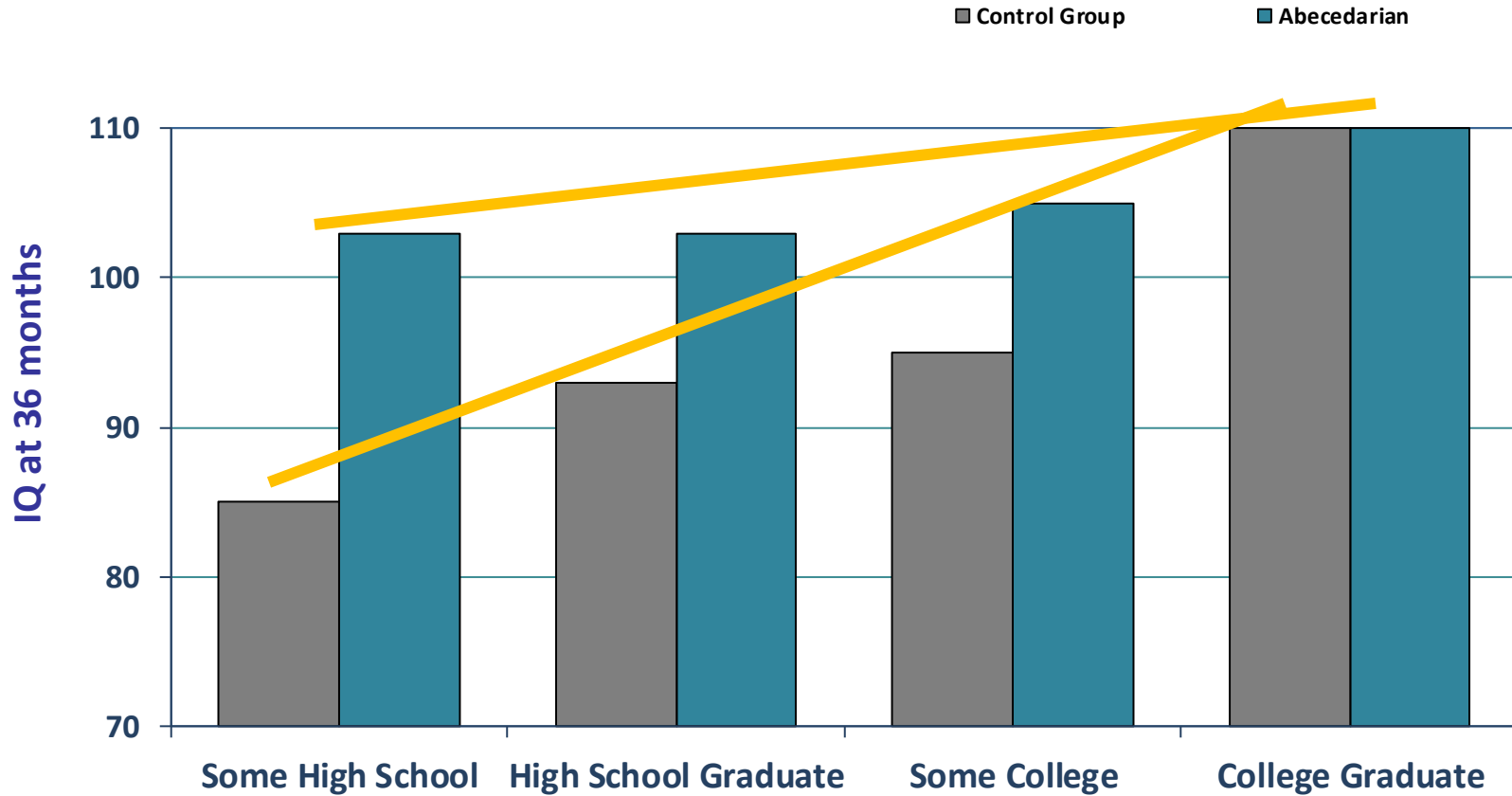


“Children who depend most on good schooling for academic growth are the least likely to receive it. If school improvement begins early in life and if sustained, the most disadvantaged children stand to benefit the most.”

Raudenbush. (2009). *Educational Researcher*.



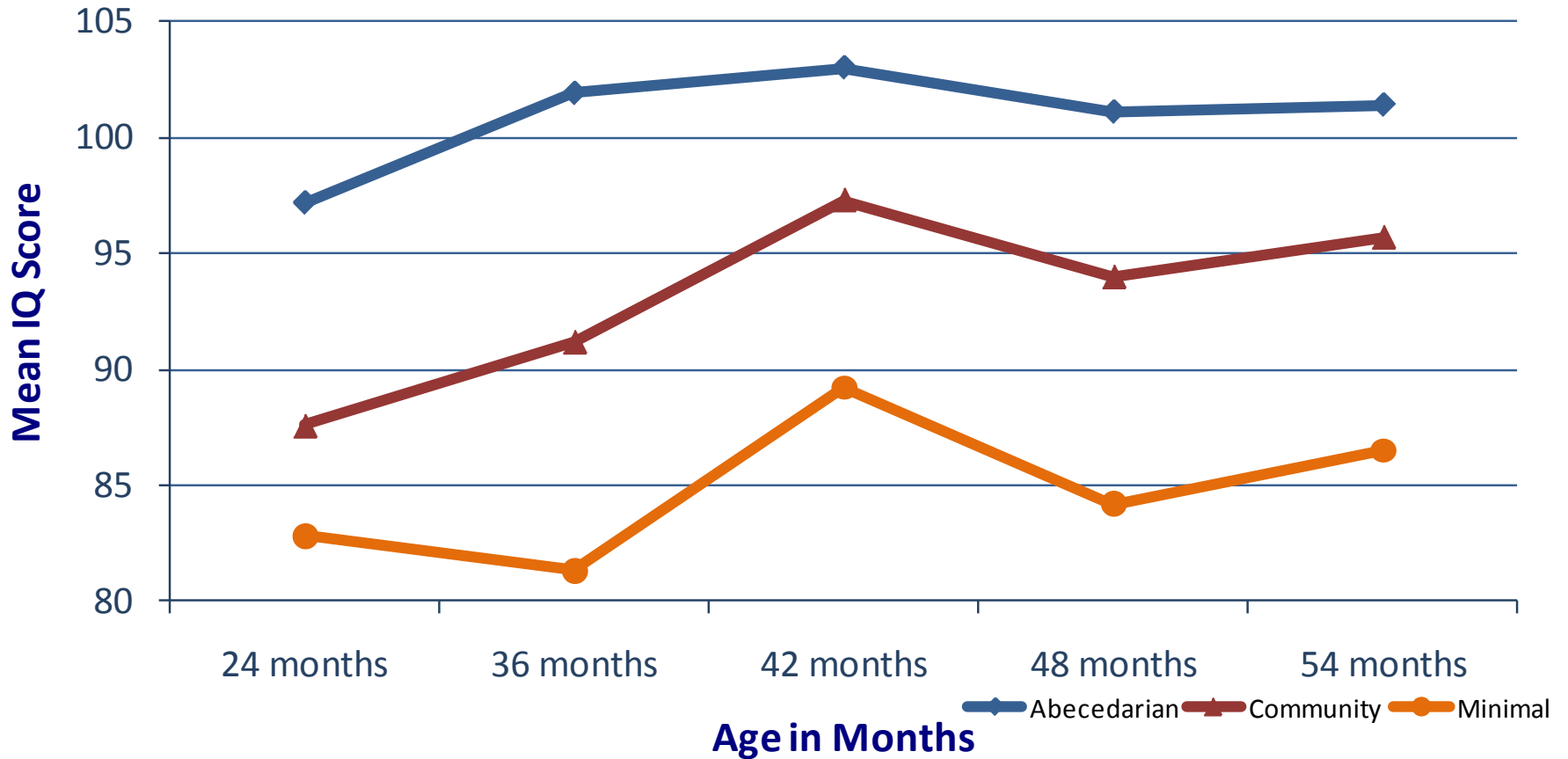
Child 36 mo. Stanford-Binet by mom's education



Ramey & Ramey. (1998). *Preventive Medicine*.



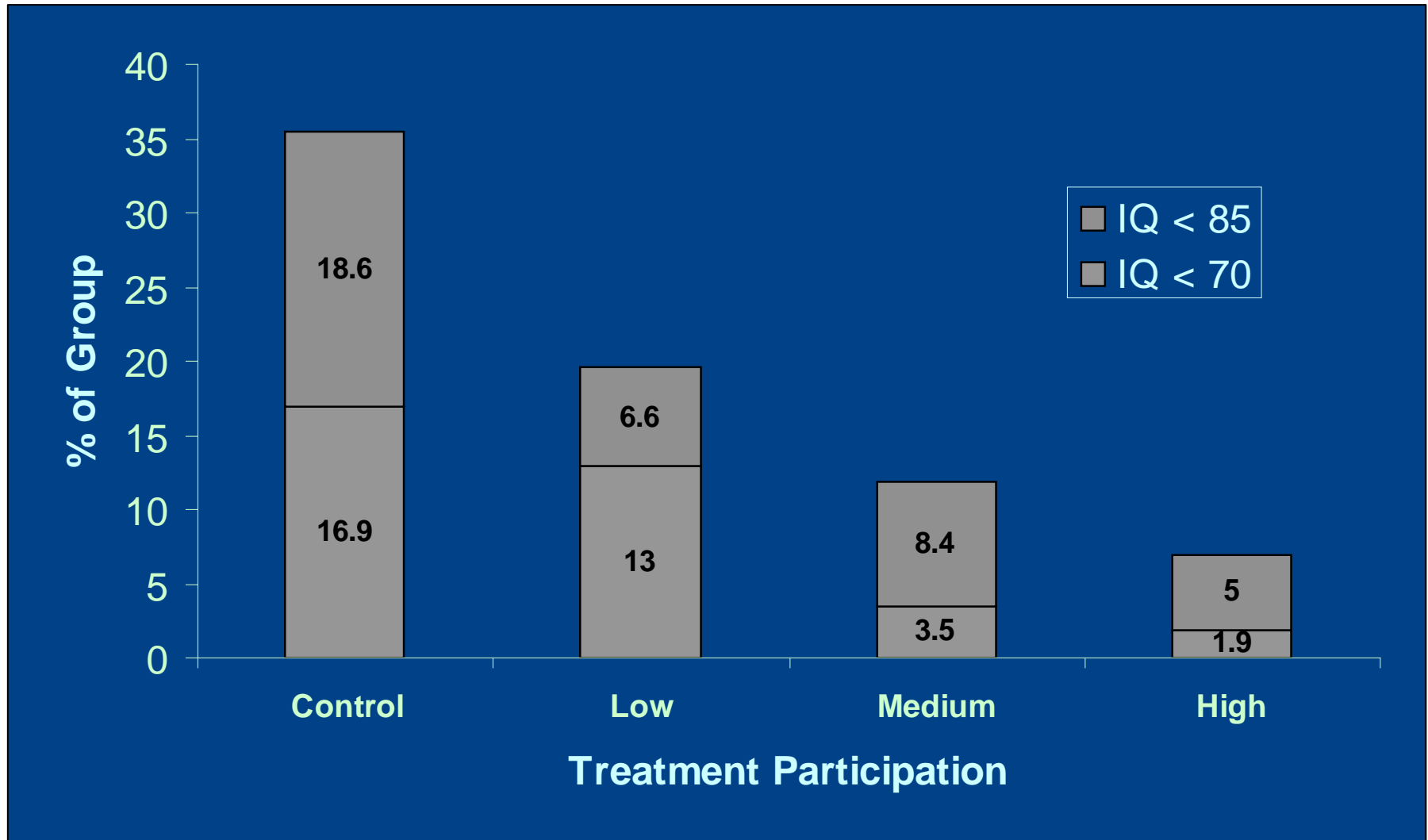
Type of child care and intellectual development



Burchinal, Lee, & Ramey. (1989). *Child Development*.



% of borderline IQ at 36 months of age by program participation



Ramey et al., (1992), *Pediatrics*



- **Lift to 40 per cent the proportion of people aged between 25 and 34 who hold a bachelor degree by 2025; and**
- **Increase to 20 per cent the proportion of students from low SES backgrounds enrolled in higher education by 2020.**



At age 21, almost three times as many individuals in the treated group (**39.5%**) compared to the control group (**13.7%**) had attended, or were still attending, a 4-year university.

$$\chi^2(1, N = 104) = 6.78, p < .01$$



Campbell et al., (2002). *Applied Developmental Science*.



- Fewer symptoms of depression ($p < .03$) at age 21
- Healthier life styles. The odds of reporting an active lifestyle in young adulthood were 3.92 times greater compared to the control groups
- A significant treatment-related reduction in reports of recently using marijuana (18% vs. 39% for the controls, $p < .05$)
- A significant reduction in teen parenthood (26% compared with 45% of controls, $p < .05$)
- Fewer risky behaviors (on the Youth Risk Behavior Surveillance System) at 18 years of age ($p < .05$)

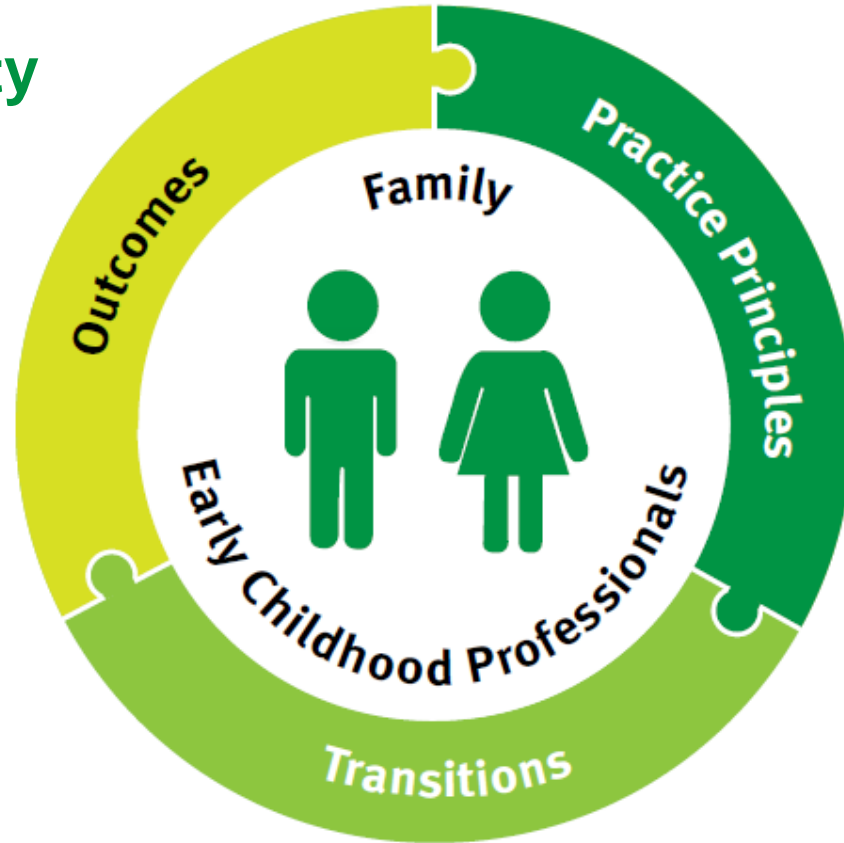
McCormick et al. (2006). *Pediatrics*.

McLaughlin. (2007). *Child Development*.

Campbell et al. (2008). *Early Childhood Research Quarterly*.



Identity
Community
Wellbeing
Learning
Communication



LEARNING

Early Years Learning Development Outcomes 4: Children are confident and involved learners



Early Years Learning & Development Framework: Birth to 8 Years

Learning Games: Birth – 36 mos.

Learning Games: 36 mos. – 60 mos.

Children develop dispositions for learning such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity

This is evident, for example, when children:

- express wonder and interest in their environments.
- are curious and enthusiastic participants in their learning.
- use play to investigate, imagine and explore ideas.
- follow and extend their own interests with enthusiasm, energy and concentration.
- initiate and contribute to play experiences emerging from their own ideas.
- participate in a variety of rich and meaningful inquiry-based experiences.
- persevere and experience the satisfaction of achievement.
- persist even when they find a task difficult.

- Sustains attention: 7, 8, 9, 10, 12, 13, 21, 32, 33, 35, 36, 39, 53, 61, 73, 78, 84, 94

- Observes objects and events with curiosity: 101, 106, 108, 109, 123, 132, 145, 146, 148, 154, 155, 164, 175, 190
- Shows persistence in approaching tasks: 108, 117, 133, 135, 152, 153, 154, 187, 188, 198

Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating

This is evident, for example, when children:

- apply a wide variety of thinking strategies to engage with situations and solve problems, and adapt these strategies to new situations.
- create and use representation to organise, record and communicate mathematical ideas and concepts.
- make predictions and generalisations about their daily activities, aspects of the natural world and environments, using patterns they generate or identify, and communicate these using mathematical language and symbols.
- explore their environment.
- manipulate objects and experiment with cause and effect, trial and error, and motion.
- contribute constructively to mathematical discussions and arguments.
- use reflective thinking to consider why things happen and what can be learnt from these experiences.

- Understands how objects can be used: 19, 25, 26, 28, 34, 45, 52, 62, 63, 66, 73, 78, 82, 87, 89, 95, 100
- Shows a beginning understanding of cause and effect: 6, 9, 11, 16, 23, 41, 45, 51, 73, 86, 94, 97
- Shows a beginning understanding that things can be grouped: 25, 28, 34, 35, 39, 50, 52, 53, 57, 60, 65, 71, 73, 76, 77, 78, 82, 83, 87, 93, 100
- Uses problem-solving strategies: 21, 30, 33, 34, 41, 46, 50, 53, 58, 59, 61, 66, 68, 73, 78, 79, 86, 90, 93, 97, 100

- Approaches problems flexibly: 104, 111, 116, 128, 129, 133, 140, 168, 172, 180, 190, 196
- Explores cause and effect: 108, , 129, 142, 148, 174, 190
- Classifies objects: 105, 116, 122, 124, 130, 137, 152, 154, 157, 163, 172, 180, 194
- Compares/ measures: 111, 122, 124, 127, 154, 155, 161, 185
- Arranges objects in a series: 107, 124, 167, 172,
- Recognizes patterns and can repeat them: 112, 127, 167, , 171, 187, 194, 200
- Shows awareness of time concepts and sequence: 135, 142, 159, 165, 177, 185, 187, 191
- Shows awareness of position in space: 112, 117, 125, 138, 146, 155, 161, 183
- Uses one-to-one correspondence: 115, 140, 160, 195
- Uses numbers and counting: 115, 160, 188,

LearningGames

Enriched
Caregiving

Conversational
Reading

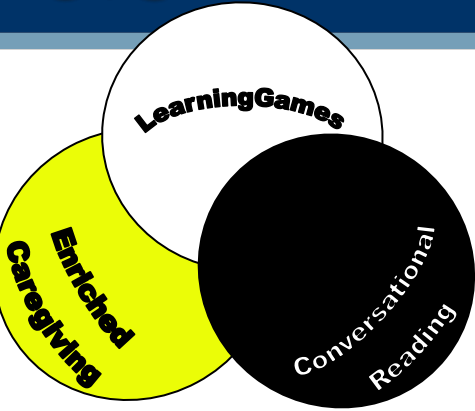
Game 94. What's Gone?

Age 30 mos.
Is this child
learning the
basic rules of
learning?



#94:
What's
Gone?

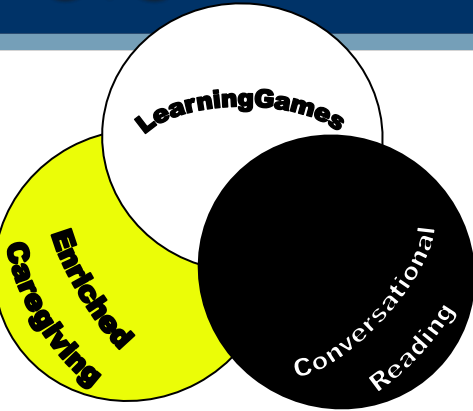




Reading and
using 3S with
a 1 year old

Conversational Reading





Meal time

Does this educator draw out child language through her questions?

Enriched
Caregiving:
Mealtime





Trip 1 Sponsored & funded by DEECD

Trip 2 Sponsored by SNAICC, funded by DEEWR

Itinerary: Melbourne – Alice springs – Cairns – Darwin – Cherbourg – Tamworth – La Perouse (Sydney) – Wollongong – Canberra – Perth – Adelaide – Ceduna – Murray Bridge – Melbourne

WA & NT Centres
Congress MACs, Alice Springs, NT
Yorganop Association
Incorporated, Perth, WA
Coolabaroo Neighbourhood Centre
MACs, Morley, WA

QLD & NSW Centres
Remote Area & Torres Strait Islander
Child Care Advisory Association, Cairns, QLD
Gundoo MACs, Cherbourg, QLD
Biralees MACs, Tamworth, NSW
The Settlement, Chippendale, NSW
Gujaga MACs, La Perouse, NSW
Noogaleek MACs, Wollongong, NSW



A remote town, NT



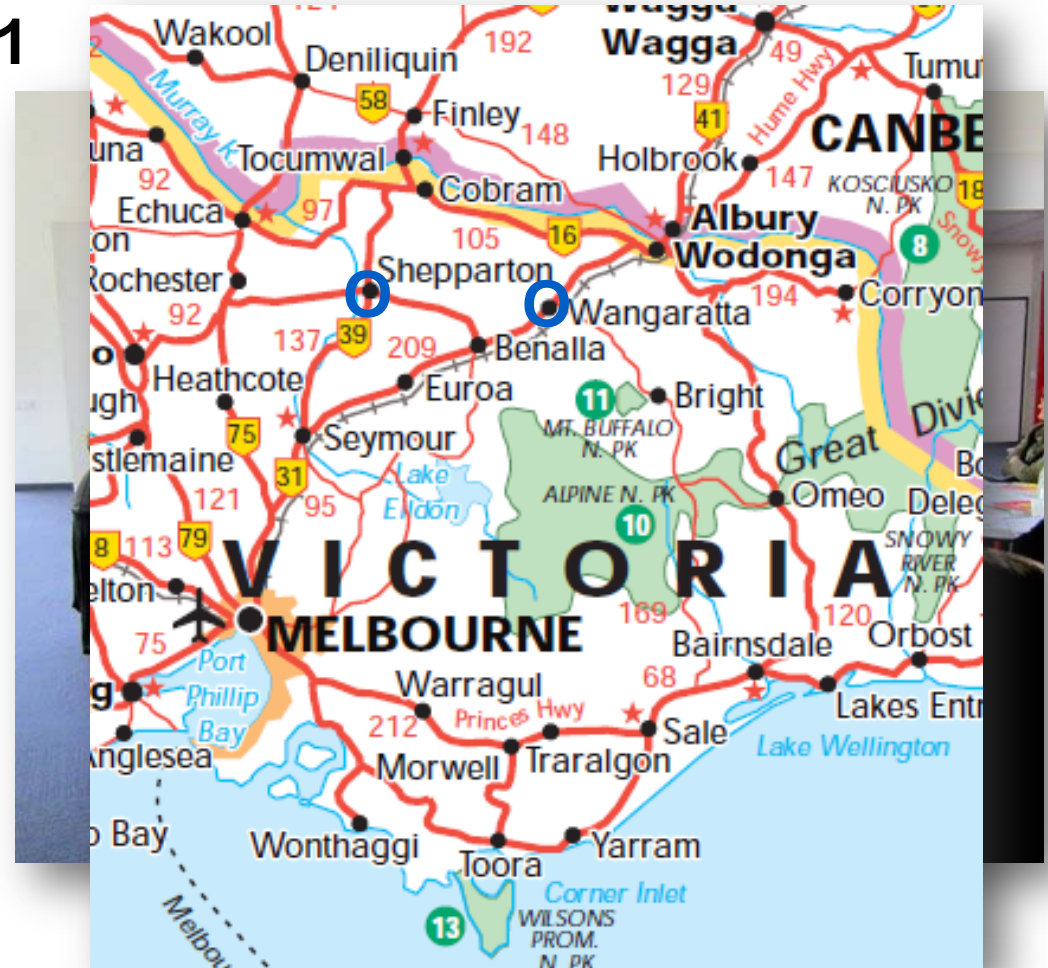


Play group at Gunbalanya



September 19 – 23, 2011

- Yarrunga Primary School Hub Building, Wangaratta, VIC
- Wilmont Rd Primary School, Shepparton, VIC
- Lulla's MACS, Shepparton, VIC



October 24 – 28, 2011

- Lake Tyres MACS,
Lake Tyres, VIC
- Gippsland & Eastern
Gippsland Aboriginal
Corporation,
Bairnsdale, VIC





- On an opt-in basis, train leaders within MACS and Family Day Care Schemes so that they can incorporate 3A to the locally desired degree
- Visit MACS to follow up on training
- Integrate 3A into the Masters of Teaching degree in Melbourne Graduate School of Education (MGSE)
- Establish a cadre of 3A trainers at MGSE to respond to 3A in-service training requests in Victoria and beyond
- Prepare an ARC Linkage Grant application (for May 2012 submission) Department of Education and Training, NT is a committed partner



For future updates on 3A, visit:

<http://www.e4kids.org.au/>

Or send email to:

Joseph.Sparling@unimelb.edu.au



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