

Approaches to Learning: Research Implications for Improving School Readiness

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Presentation Outline: Big Picture and Fine-grain Detail

Defining and Measuring School Readiness

Uniqueness of Approaches to Learning Domain

Research to Practice

Note: Links to Jonathan Mooney

U of Miami Research Team

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**Department of Education: Institute of
Education Sciences: Funding for 10
University Interdisciplinary Ph.D. Training
Centers In Educational Research**

Two of the 10 are in Florida:

Florida State University -- interdisciplinary
research in educational sciences related to reading.

University of Miami -- in-depth, interdisciplinary
study of educational issues arising in diverse, urban settings,
with emphasis on low-income and bilingual populations at risk
for poor educational outcomes.

Community Partners

Miami-Dade County Head Start

Ophelia Brown/Jane Robinson

Florida Head Start Association

William Fillmore/Judi Maloy/Juanita
Heinzen

FHSA Research Committee

Liz Karas/Maggie Stevens

Head Start Collaboration Office

Katherine Kamiya/Mary Bryant



National Education Goals

1990: Eight National Education Goals were
defined by the Governors and Congress to
improve learning and teaching in the nation's
educational system

Goal 1: Ready to Learn: *By the year
2000, all children will start school ready
to learn*

Defining School Readiness

Effective guide for public policy:

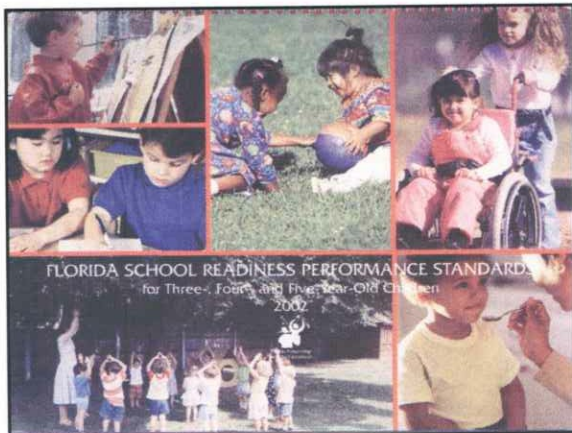
- Clear, consensus definition
- Can accurately measure

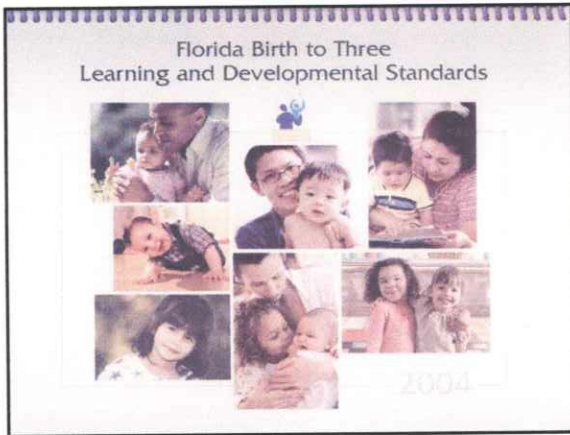


Defining School Readiness

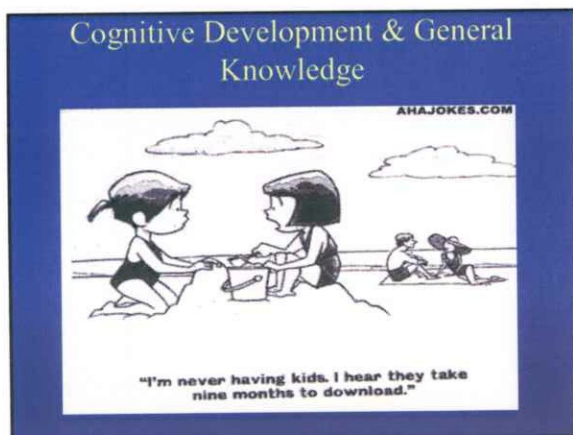
- Multiple domains
- Growth spurts
- Readiness for learning
- Readiness for school
- Maturation readiness
- Learned readiness skills
- Home environment
- Classroom environment
- Interaction with parents
- Interaction with teachers
- Interaction with peers
- Community resources
- Cultural context



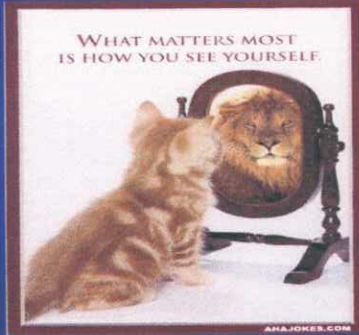




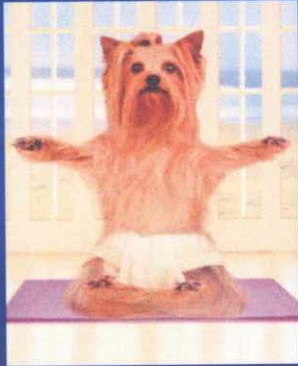




Social and Emotional Development



Fine and Gross Motor Development



Health



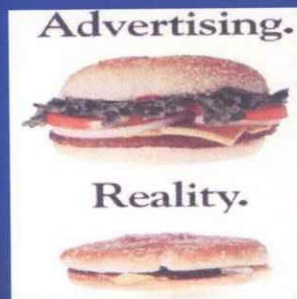
School Readiness in 2005

1990: National Education Goal 1: Ready to Learn: By the year 2000, all children will start school ready to learn -- *this is now called Healthy Start 2010*

We know a lot about school readiness, but still have a lot to learn.

Florida programs have much to offer as research partners to advance our knowledge to the benefit of young children and families.

Not all Measures Created Equal



Defining Levels of Measurement

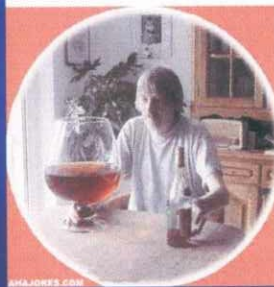


Ordinal Level of Measurement

Can only determine order, not how MUCH more

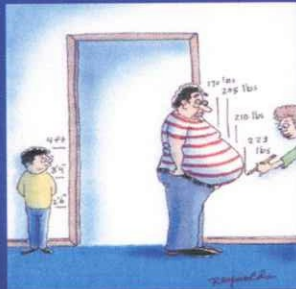
- Star Movie Rating System
- Star Hotel Rating System
- Low, Middle, High Income
- Rank in Army
- Regular, Choice, Prime Cut

My Doctor said "Only 1 glass of alcohol a day". I can live with that.



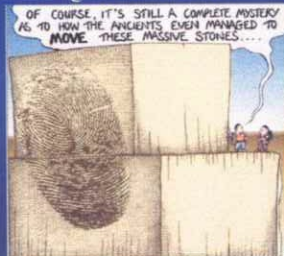
Interval Level of Measurement

- Can determine how MUCH more within and across domains
- Measures comparable growth, regardless of initial level



Multi-method and Multi-informant

Obtained FROM Multiple Sources such as:
Teacher, parent, child, curriculum specialist, health worker, relevant others using variety of methods such as teacher ratings & observations



State of Florida, Fall, 99 Legislation: "School Readiness Act"

Who measures what, how?

Universal screening of school readiness at Kindergarten entry (State decides -- universal)

Developmental assessment of school readiness during early childhood program (Local decision --variable)

Some Consequences in Florida

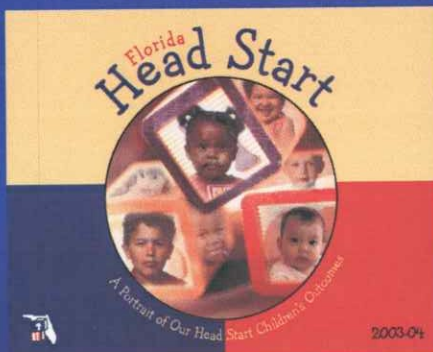
Acknowledges readiness is multi-faceted, but focus is on what children know and can do.

Uniform statewide data are screening data NOT assessment data.

Measures to collect data to assess how much children are learning (and program effectiveness) are local choices .. so choose wisely.

Make sure you understand difference between screening and developmental assessment: They do not address the same issues

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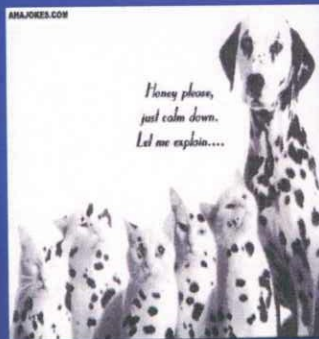


Approaches to Learning (newest, least studied, and least understood domain of school readiness)



Approaches to Learning

Domain general



Domain Specific Skills

Five Content Area Readiness Domains (Language, Cognitive /General Knowledge, Health, Physical, Social/Emotional) Require Skills That Are Applicable Only in That Domain:

Learning to rhyme doesn't aid in learning to resolve peer conflicts

Learning to cut and paste doesn't aid in learning which objects sink or float

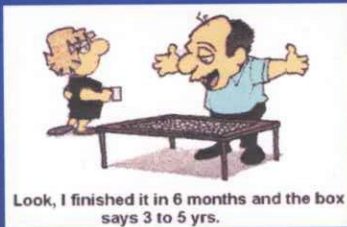
Curiosity

Curiosity is a necessary prerequisite for learning, but involves risks that are always present when there is novelty



Persistence

Staying involved despite being faced with obstacles such as failures. (All learning involves obstacles and failures)



Problem Solving Flexibility

Trying alternate solutions when current solution is not working



Preference for Challenge

The motivation to attempt learning tasks that are not easily accomplishable and vary by level of difficulty



Attention Control

Ability to focus and maintain attention on a task in the face of distractions



Domain General Skills

Components of Approaches to Learning are Applicable for Learning in all other Readiness Domains

For example, preschool children who learn to rhyme are *curious* about words that rhyme, *flexible* in the rhyming games they play and *persistent* in their pursuit of rhyme

Teacher Measures of ATL

Initiative & Curiosity

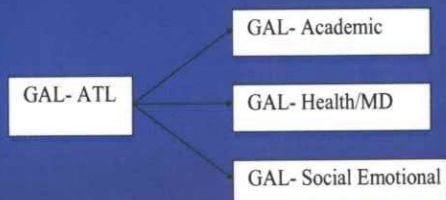
- Explores most areas of the classroom.
- Participates in an increasing variety of experiences independently
- Selects activities or objects from a choice of at least two in a daily

Engagement & Persistence

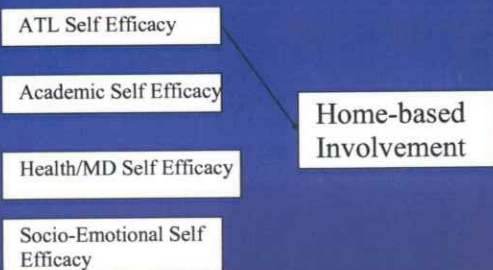
- Maintains concentration in an activity despite distractions or interruptions.
- Persists with a difficult or non-preferred activity.



Child School Readiness: SEM Analyses Teacher Scores

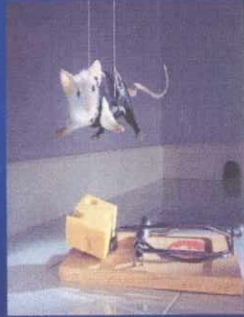


Parental Efficacy and Involvement: SEM Analyses



Direct Assessment of ATL

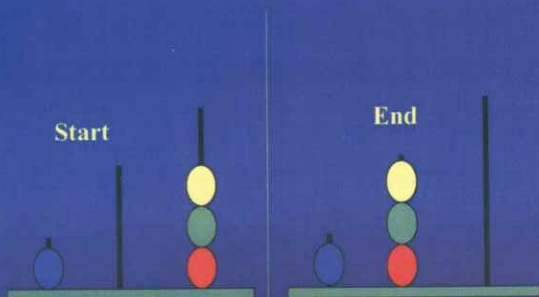
Provide child with
game-like tasks that
are engaging, but
challenging to solve



Fishing Task: Persistence



Tower of London: Persistence



Problem Solving Flexibility

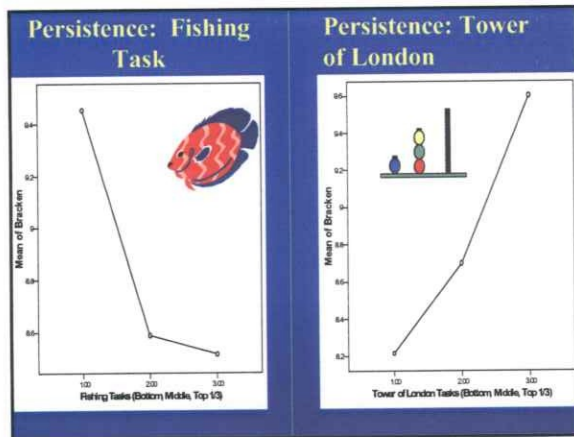


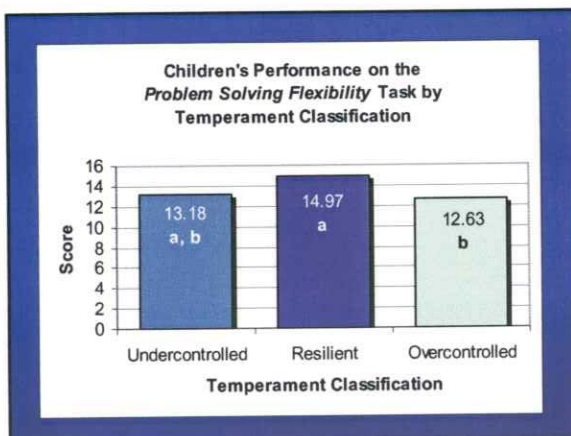
Curiosity/Hidden Prize Game

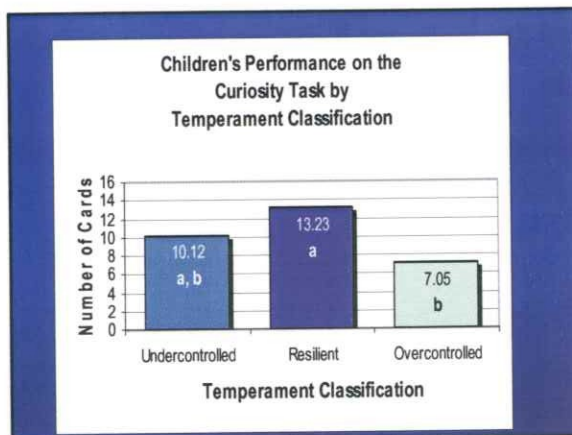


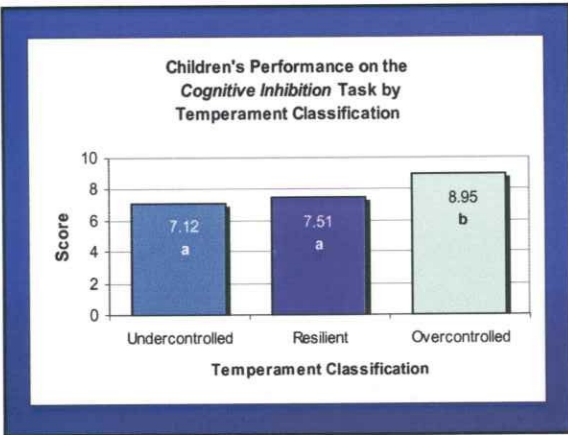
Cognitive Inhibition Task

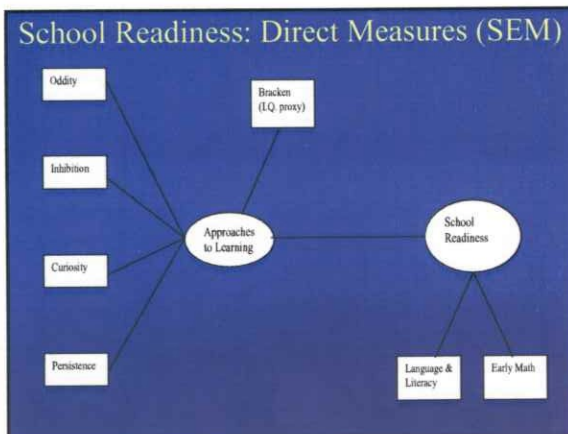












Research to Practice

We should be able to teach young children to explore their interests (*curiosity*), try tasks that are challenging (*preference for challenge*), not give up when frustrated (*persistence*), and try alternate methods when they hit a dead end (*flexibility*)

ATL as foundation of Curriculum

National focus on language,
other domains may be ignored

Short day, limited attention
span, few "teaching moments"

Maximal development with
hands-on learning across
modalities (e.g., stories read,
acted out, sung, reinforced
with science, math and art
activities) and day.



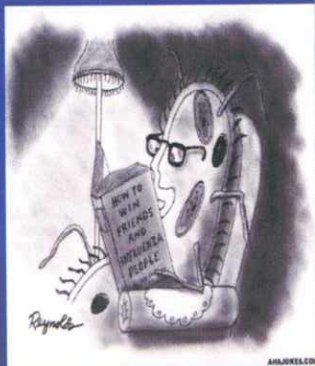
ATL Example

Developmentally
/culturally appropriate
books focus on
approaches to learning
skills (e.g., persisting
on tasks with a high
likelihood of initial
failure)



Discussion of book centers on ATL concepts

- experiencing frustration
- pleasure at learning new things
- learning to be flexible and try different ways of accomplishing the task
- asking related questions while reading the story – what do you think he/she is going to do if this doesn't work



- Phrases children can use to promote concepts
 - Practice
 - Try same way
 - Try different way
 - I'm busy
- Structured individual small group hands-on activities to demonstrate concepts
 - Building a high tower
 - Creating music with various instruments
 - Solving more difficult puzzles
 - Dramatic play focused on ATL theme



- Structure classroom environment to encourage and support practice of ATL skills
- Use of charts
 - Things I do well
 - things I'm practicing
 - Things I want to learn ...
- Peer dyads as "coaching" and "cheerleading" mechanisms to keep trying and try alternate ways



Take Home Messages

- Defining and Measuring School Readiness
 - not as easy as one might think, so OK to ask for help; programs in control, **so choose wisely**
- Uniqueness of Approaches to Learning Domain
 - domain general, so big bang for the bucks
- Research to Practice
 - be purposeful and explicit in teaching ATL skills
 - Build on each child's strengths and interests

