### The FLAWS of FLKRS



Daryl B. Greenfield, U of Miami dgreenfield@miami.edu

Florida Head Start Association Webinar: 2-12-09

### Today's Ride

- Legislation
- Legislative intent
- What is required to meet legislative intent
- Does FLKRS meet the legislative intent?
- Parallel example
- Next Steps

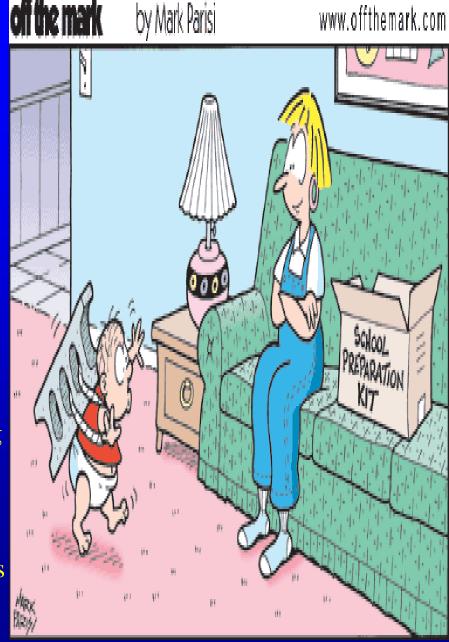


#### State Statue

- Section 1002.69, F.S., requires DOE to:
  - Adopt a statewide kindergarten screening that assesses the readiness of each student for kindergarten based upon the adopted VPK education program performance standards

### The statewide kindergarten screening shall:

- Provide *objective data* concerning each student's readiness for kindergarten and *progress* in attaining the VPK performance standards
- Incorporate mechanisms for recognizing potential variations in kindergarten readiness rates for students with disabilities.



### Accountability: Legislative Intent



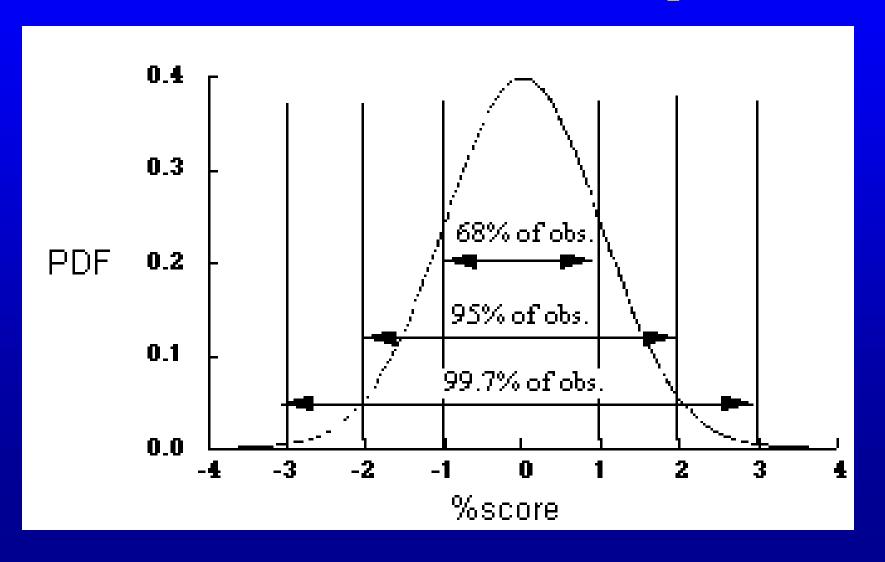
### Accountability: Legislative Intent

- Use objective data to support, and fund VPK providers whose children make
   "progress" in their "development."
- Since development is defined by the domains (academic and non-academic) of the VPK standards, data *must* be comprehensive
- Measuring progress requires children be assessed a *minimum* of 2 times, ideally before they receive VPK service and right after they complete program
- Acknowledges that a "one size fits all" accountability system is not applicable (children with disabilities)

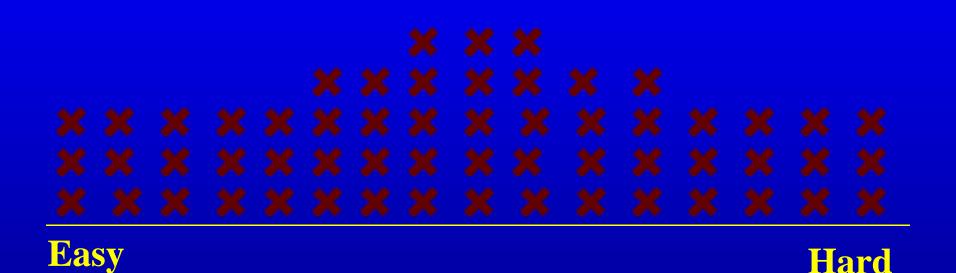


### **Assessing Progress**

#### The Normal Distribution (Bell Shaped Curve)



### 



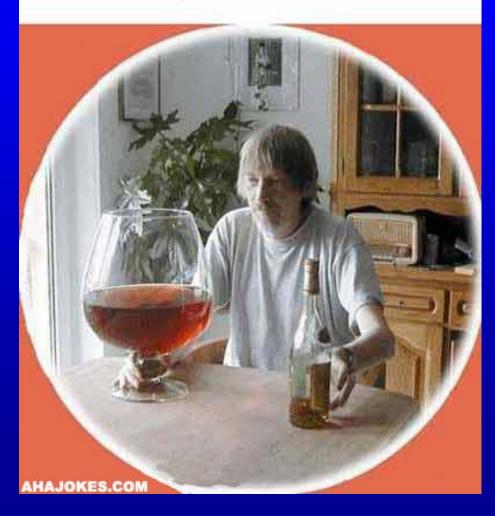
**Item Difficulty** 

#### **Ordinal Level of Measurement**

### Can only determine order, not how MUCH more

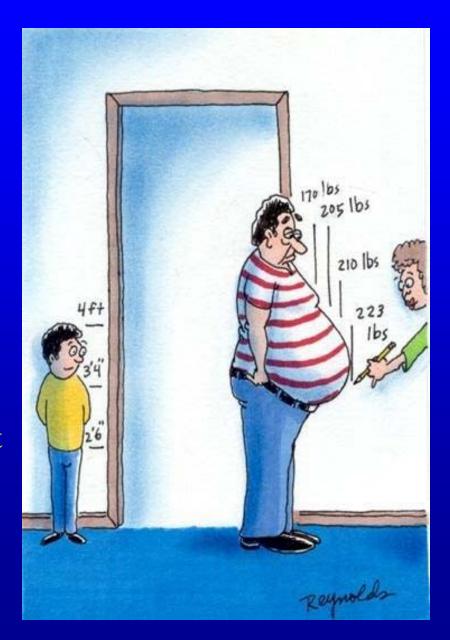
- Star Movie Rating System
- Star Hotel Rating System
- Low, Middle, High Income
- Rank in Army
- Regular, Choice, Prime Cut

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

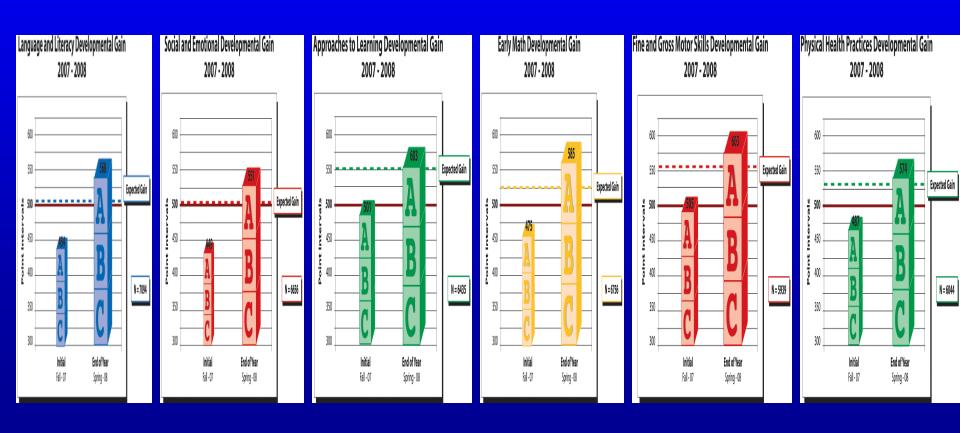


### Interval Level of Measurement:

- Units of change are equal
- Units of change reflect same amount of growth regardless of initial level
- Item Response Theory (IRT) provides mechanism for converting raw scores into interval level "ability" scores:
  - can center readiness domains at same value so initial levels can be compared
  - can also compare amount of gain across readiness domains



# Providing objective data to assess progress requires collecting interval level data in all VPK readiness domains pre- and post VPK with measures that cover the full range of preschool ability: e.g,



# Can we Measure Children's Progress with FLKRS?



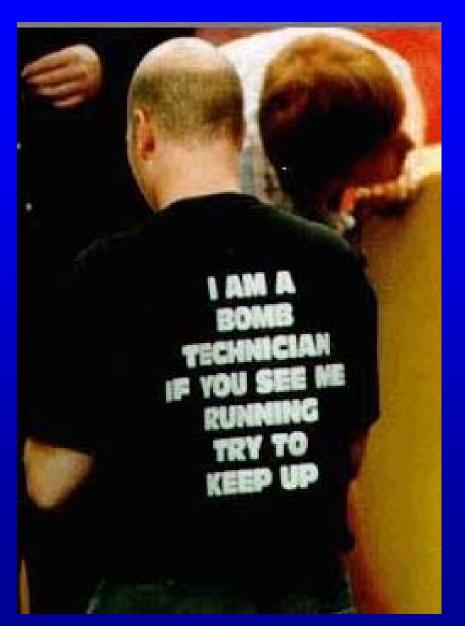
### What is FLKRS?

- The Florida Kindergarten Readiness Screener (FLKRS) was developed using a *subset* of items from two published assessments:
  - Early Childhood Observation
     System<sup>TM</sup> (ECHOS<sup>TM</sup>) Harcourt
     Assessment, Inc.
  - Dynamic Indicators of Basic
     Early Literacy Skills (DIBELS)
     Dynamic Measurement Group,
     Inc.



### What is in FLKRS?

• 1 minute letter naming fluency test (see accompanying picture where this skill is important)



### What is in FLKRS?

- 1 minute letter naming fluency test
- 3 minute initial sound fluency test (see accompanying picture where this skill is important)
- 19 items from ECHOS covering 8 readiness domains



### Position Paper on Use of DIBELS for System-Wide Accountability Decisions. Dynamic Measurement Group, Nov., 2006

- "It has never been the intention of the developers of **DIBELS** that the data be used to evaluate individual teachers or be used for other high-stakes decisions, such as funding (Good & Kaminski, 2004). The reasons against **use** of **DIBELS** for funding decisions:
- **DIBELS** were not validated for such uses.
- **DIBELS** data do not provide a comprehensive evaluation of the many aspects of a program that need to be considered when making high stakes decisions. **DIBELS** are deliberately intended *not* to assess a wide range of individual skills related to a domain nor the many aspects of a school's program related to school success.

# **ECHOS**<sup>TM</sup> consists of 19 items from these domains:

Language and Literacy (5)

Mathematics (4)

Social and Personal Skills (2)

Approaches to Learning (1)

Science (1)

Social Studies (2)

Physical Health and Fitness (2)

Creative Arts (2)

#### ITEM #1: Knows how to use a book.

- Shows curiosity about all aspects of print
- Identifies front and back of book and where story begins
- Recognizes that the purpose of print is to tell the story

### ITEM #2: Shares information about events that happen outside of school.

- Shares events with class
- Describes an event in one or two simple sentences
- Elaborates on an event in great detail

### ITEM #3: Retells a story or part of a story that has been read to the class.

- Listens attentively when the teacher reads books in class
- Retells one part of the story accurately
- Retells whole story or event experienced in class

#### ITEM #4: Demonstrates understanding of story elements.

- Answers literal questions about story elements including character, setting, and plot
- Makes predictions based on illustrations or portions of stories
- Answers questions (e.g., inferential, cause and effect) about stories read by teacher

### ITEM #5: Demonstrates awareness of distinction between "kids writing" and conventional writing.

- Rereads own scribble writing
- Recognizes difference between scribbling/drawing pictures and conventional writing
- Uses phonetic spellings mixed with conventional spellings when writing

### ITEM #6: Counts objects in a collection by creating one-to-one correspondence between each number word and each object.

- Counts five objects and associates last counting word with "how many"
- Provides correct number of objects (up to 10) upon request
- Creates a collection of one to 20 items by counting them out

#### ITEM #7: Identifies two-dimensional shapes and their uses.

- Recognizes and names circle, square, triangle, rectangle, in any size or orientation
- Identifies, builds, and draws various types of triangles and rectangles
- Describes two-dimensional shapes (e.g., by identifying and counting sides)

### ITEM #11: Uses classroom materials purposefully, safely, and respectfully.

- Takes care of personal property
- Asks permission to use someone else's property
- Uses and stores classroom equipment and supplies

### ITEM #12: Shows eagerness and curiosity about new topics and ideas.

- Observes and comments on new topics and ideas
- Asks questions (e.g., "How can the caterpillar live in the cocoon with no food or water?")
- Willingly discusses a new idea with teacher or another child

### ITEM #15: Identifies the need for rules and authority figures and the consequences of breaking the rules.

- Identifies classroom rules
- Takes turns and shares responsibility for classroom chores
- Discusses how school rules and consequences for safety of all

#### ITEM #16: Engages voluntarily in large-muscle activity.

- Runs while on playground
- Plays on climber for long periods with repetition of motor movements
- Incorporates jumping, skipping, and throwing in play

#### ITEM 18: Creates movements that correspond to different types of music.

- Claps or marches to beat of music
- Moves body to indicate different musical beats, tempos, and dynamics (i.e., loudness and softness)
- Responds through purposeful movement (e.g., swaying, skipping, dramatic play) to different types of music

# Screening: Each **\*\*** Represents 1 item on the screening test

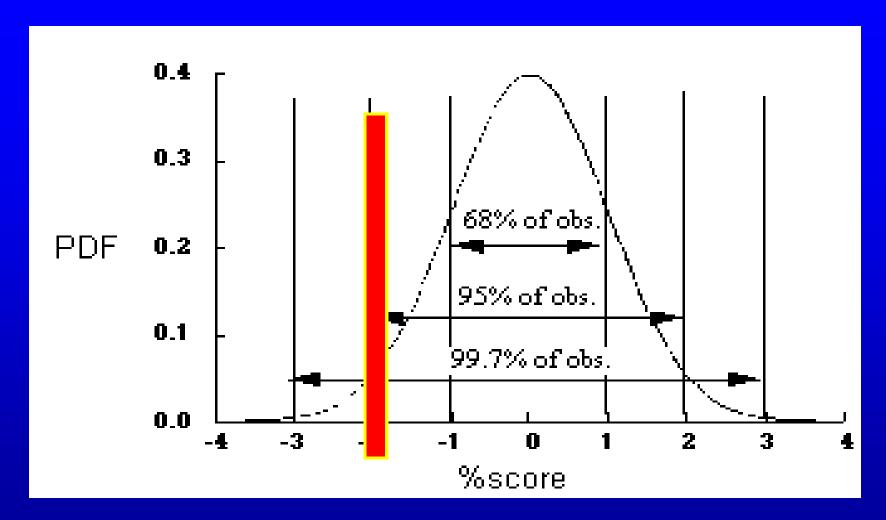
**Easy** 

**Item Difficulty** 

Hard

Item difficulty: % who get an item correct

### Screening



Goal: divide children into two groups: above and below criteria point

# Can we Measure Children's Progress with FLKRS?



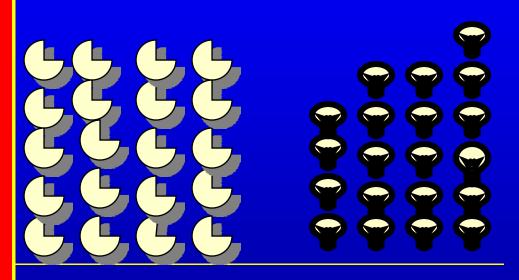
- Not comprehensive; Not at least 2 measurement points
- TOO LITTLE, only done once, so NO!!!!!!

# Consequences of Using FLKRS for Program Accountability



#### **Bad Program with High Functioning Children**

- **At Program Entry**
- **At Program Exit**

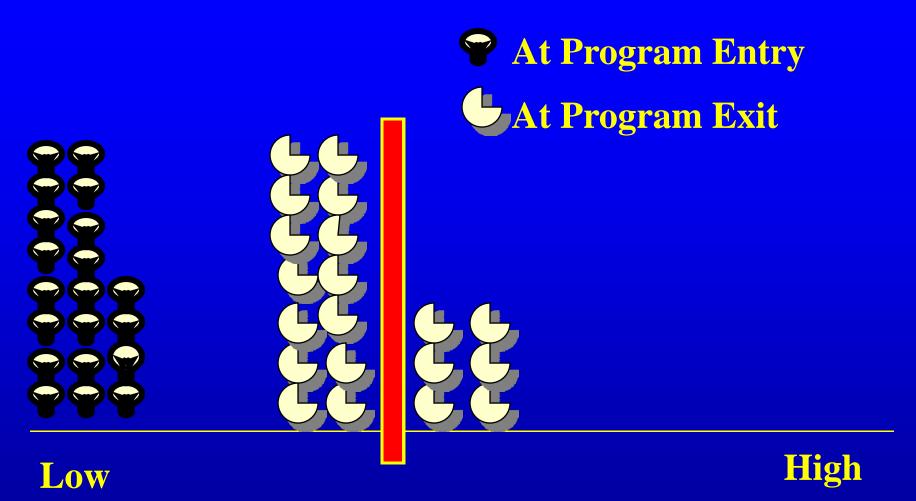


Low

**Ability Level** 

**Reported Readiness Rate: 20/20 = 100%** 

#### **Excellent Program with Low Functioning Children**



**Ability Level** 

**Reported Readiness Rate:** 6 /20 = 30%

### Florida Kindergarten Swimming Readiness Screener (FLKSRS)

FLORIDA decides that all children should enter kindergarten able to swim. Since Florida is populated with beaches, water parks, swimming pools, etc. and many young children in Florida accidentally drown, this is a laudable goal that addresses a real problem. Florida leads the nation in drowning at nearly double the national rate (Office of Injury Prevention, Florida Department of Health).

- For example, a recent article entitled, "Accidental Drownings #1 Killer Of South Florida Kids In Summer (June, 2008) states,
  - South Florida has always had one of the highest child drownings rates in the country. "It's the No. 1 killer of young kids in South Florida," said Miami-Dade Fire Rescue Lt. Eddy Ballester, speaking about accidental drownings. "We have that dubious distinction of suffering more tragedies than anywhere else in the country."

- Similar to poor school readiness, this problem is concentrated in low-income minority children:
  - "According to experts, many child drowning victims come from poor or minority communities with limited exposure to pools. South Florida statistics mirror national statistics that showed 58 percent of black children and 56 percent of Hispanic children cannot swim safely. Hispanic girls are among highest risk according to figures from Miami-Dade Fire-Rescue." (quote from same article)

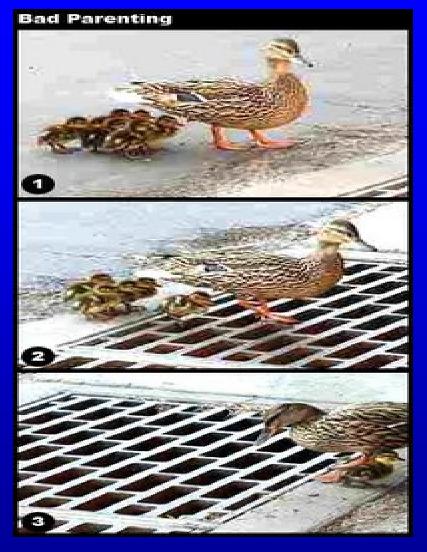
- FLORIDA addresses this issue by provided funds for programs to teach young children to swim.
- Similar to VPK, although low-income minority children are at greatest risk and need these programs more than middle-class children, this voluntary swimming program (VSP) is made available to all Florida preschool children.
- Similar to VPK, the effectiveness of VSP is then evaluated at kindergarten entry using the Florida Kindergarten Swimming Readiness Screener (FLKSRS).
- The FLKSRS is administered by assessing each KG child's ability to swim a total of 50 yards back and forth across the deep end of a swimming pool in under 4 minutes (children only get 1 minute for the DIBELS test).

- Program #1 enrolls 20 middle class children all of whom live in homes with a backyard pool. At program entry all 20 children are capable of passing the FLKSRS. This program has minimal supervision, no instruction, and children are left unsupervised to play in the swimming pool.
  - -This is clearly a program in need of remediation and possible termination as a VSP provider.

- Program #2 enrolls 20 low-income children, all of whom have NO swimming experience. In fact, most of them are frightened of going into the water. This high quality program works at removing the children's fear of the water, teaches all of them to dive for rings, tread water, swim slowly using a "doggy-paddle" style and beginning instruction on how to properly use other more advanced swim strokes.
  - -One would anticipate that this program would be congratulated for serving a very needy, low-functioning at-risk population and producing significant progress in swimming ability for every child in the program.

- Children from Program #1 are administered the FLKSRS and all 20 pass.
- Children from Program #2 are administered the FLKSRS and 16 of the children "dog-paddle" across the pool and take slightly more than the allotted 4 minutes to complete this task, and thus FAIL the FLKSRS.
- INSTEAD of the correct decision (concern for Program #1; laud Program #2), UNDER THIS SYSTEM, Program #1 is lauded as a model program. Program #2 is flagged for remediation and is in danger of losing VSP funding.

### **FLKSRS** and **FLKRS**



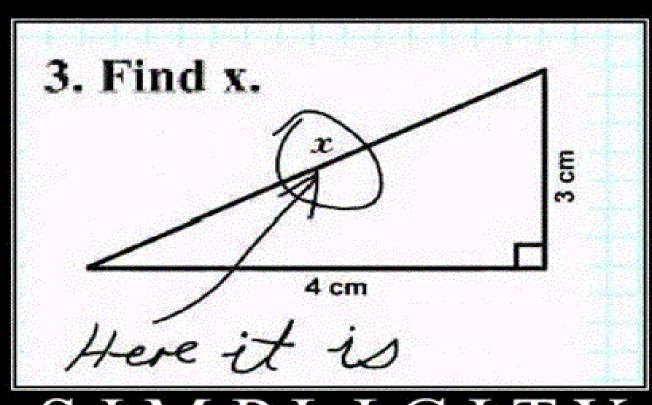
• FLAWED SYSTEMS THAT DO NOT MEET THE INTENT OF THE LEGISLATION

### FLKRS scoring criteria

- DIBELS: number of items in prescribed time
- ECHOS: Numeric scores for Not Yet, Emerging, Demonstrated
- Combine these two
   different metrics to create
   Pass/Fail Cut Line .... (see
   accompanying explanatory
   diagram



### Consequences of FLKRS simplified "math"



### SIMPLICITY

The simplest solutions are often the cleverest They are also usually wrong

## VPK Provider Kindergarten Readiness Rate Calculation

	ECHOS TM	DIBELS TM Letter Naming Fluency	DIBELS TM Initial Sound Fluency
Children Ready for Kindergarten: ECHOS: Consistently Demonstrating or Emerging/Progressing DIBELS Letter Naming Fluency and Initial Sound Fluency: Above Average or Low Risk.	18	9	6
Children Screened: The number of children screened on each of the three measures.	20	18	15
Percent of Children Ready for Kindergarten: The number of Children Ready for Kindergarten divided by the number of Children Screened on each measure.	90	50	40
The VPK Provider Kindergarten Readiness Rate is the sum of the Percent of Children Ready for Kindergarten.		180	

### Revamping FLKRS



### Impacting Development of the New System

- How can stakeholder organizations and providers effectively participate in making this a better and fairer accountability system?
  - Increasing the awareness of flaws in current system?
    - Position Paper?
    - Examples from Providers?
  - Advocacy for alternate plan?
    - What would this plan be?
    - Can stakeholders unify behind this?
  - Seats at the decision table?
  - What else?



