NATIONAL ALTERNATE ASSESSMENT CENTER

1% & 2%: All for Learning What do we know?

Council For Exceptional Children Conference 2006 Salt Lake City, Utah

How Students with Disabilities Participate in Assessment

	General Assessment	*Alternate Assessment on Grade-level Achievement Standards*	*Modified Assessment*	*Alternate Assessment on Alternate Achievement Standards*
Content Standards	Grade-level	Grade-Level	Grade-level	Grade-level
Achievement Standards	Grade-level	Grade-level	Modified	Alternate level
Participating Students	Most Students including those with disabilities with or w/o accommodations	Students who need an alternate way to show what they know	?	Students with the most significant cognitive disabilities with limited response repertoires and a rate of skill acquisition that varies significantly from typical students.

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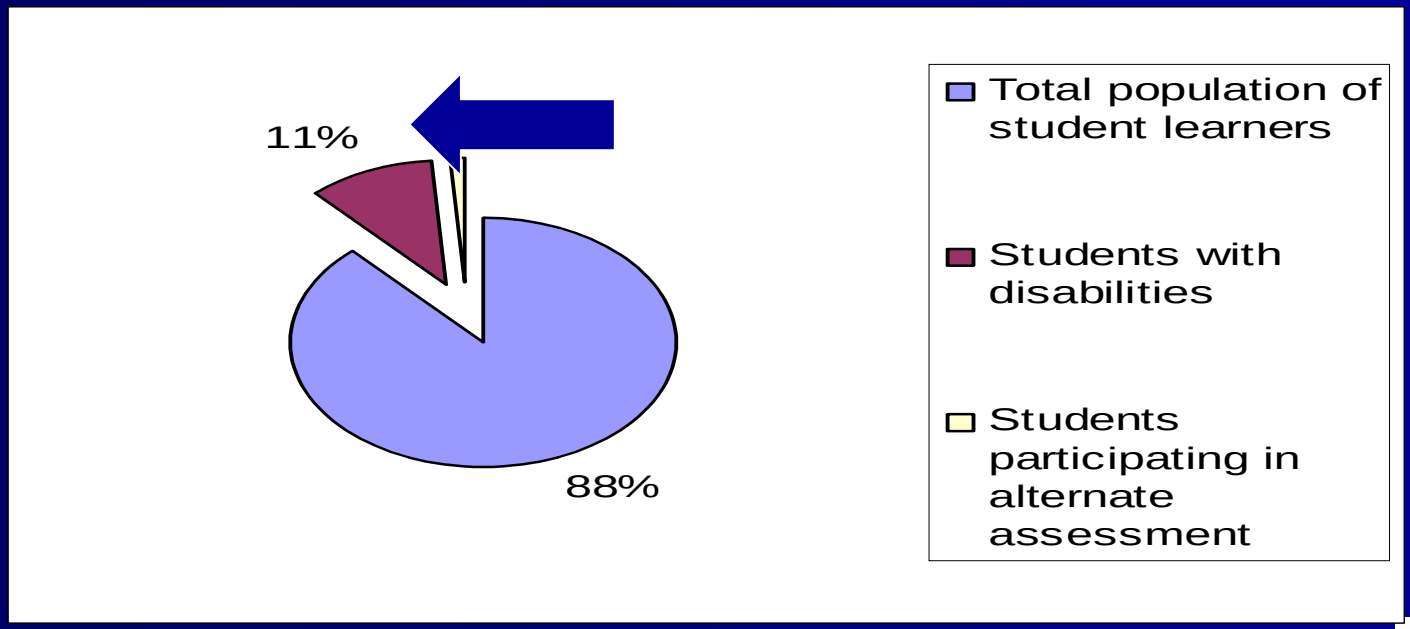
More different than alike…

The number of students participating in alternate assessments on alternate achievement standards as compared to the total population of student learners and students with disabilities…



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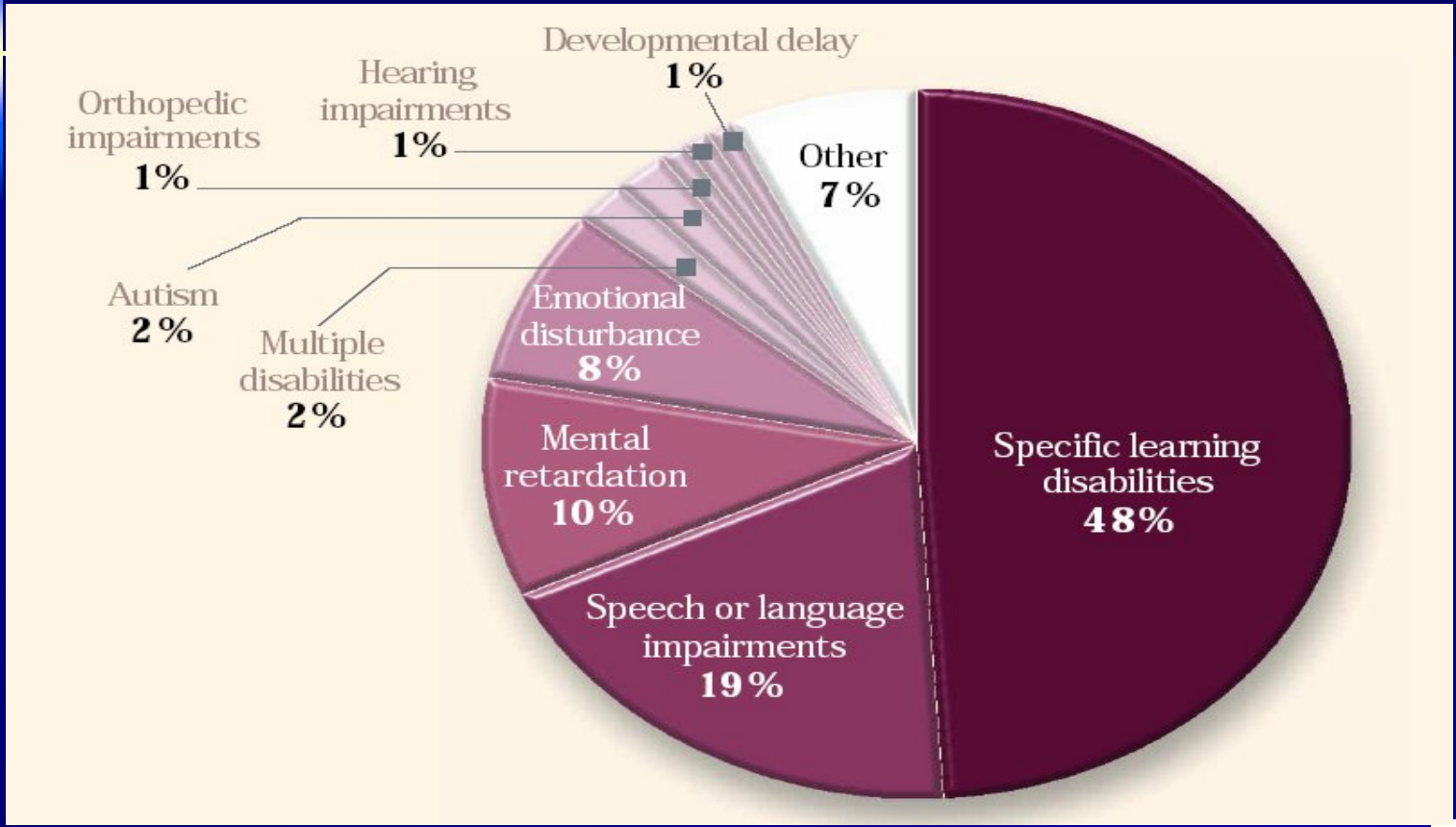
More different than alike...

The total student population receiving special education services broken down by disability category



SOURCE: Education Week analysis of data from the U.S. Department of Education, Office of Special Education Programs, Data Analysis System, 2002-03.

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More alike than different

- It is *not* our purpose to develop a separate theory of cognition for students with the most significant cognitive disabilities, but rather to:
  - understand within the context of our current literature, what might be problematic for students with significant cognitive disabilities, within this most important vertex of the assessment triangle as it is defined for all students (Kleinert & Browder, unpublished manuscript)

Issues in Teaching/Assessing Students in Alternate Assessments on Alternate Achievement Standards

- Students with the most significant cognitive disabilities present problems with learning in these areas:
  - Attention to Stimuli
  - Memory
  - Generalization
  - Self-Regulation
  - Limited motor response repertoire
  - Meta-cognition and Skill Synthesis
  - Sensory Deficits
  - Special Health Care Needs

Learner Characteristics of Students in 1%

- Learner Characteristics Inventory (LCI)
  - Expressive Communication
  - Receptive Communication
  - Hearing
  - Vision
  - Motor
  - Engagement
  - Attendance
  - Reading Skills
  - Mathematics Skills

Expressive Communication

- Uses symbolic language to communicate: Student consistently uses verbal or written words, signs, Braille, or language-based augmentative systems to request, initiate, and respond to questions, describe things or events, and express refusal.
- Uses intentional communication, but not at a symbolic language level: Student consistently uses understandable communication through such modes as gestures, pictures, objects/textures, points, etc., to clearly express a variety of intentions.
- Student communicates primarily through cries, facial expressions, change in muscle tone, etc., but no clear use of objects/textures, regularized gestures, pictures, signs, etc., to communicate

LCI Pilot Study Findings

- Expressive Language was highly correlated with our reading/math items
- 2 distinct groups of students
  - Pre/emerging symbolic Language learners
  - Symbolic Language Learners

Research on Academic Interventions

Browder, D.M., Wakeman, S., Spooner, F., Ahlgrim-Delzell, L., & Algozzine, B (manuscript submitted for publication). Research on reading for students with significant cognitive disabilities. *Exceptional Children*.

- Reading
- Math
- Science

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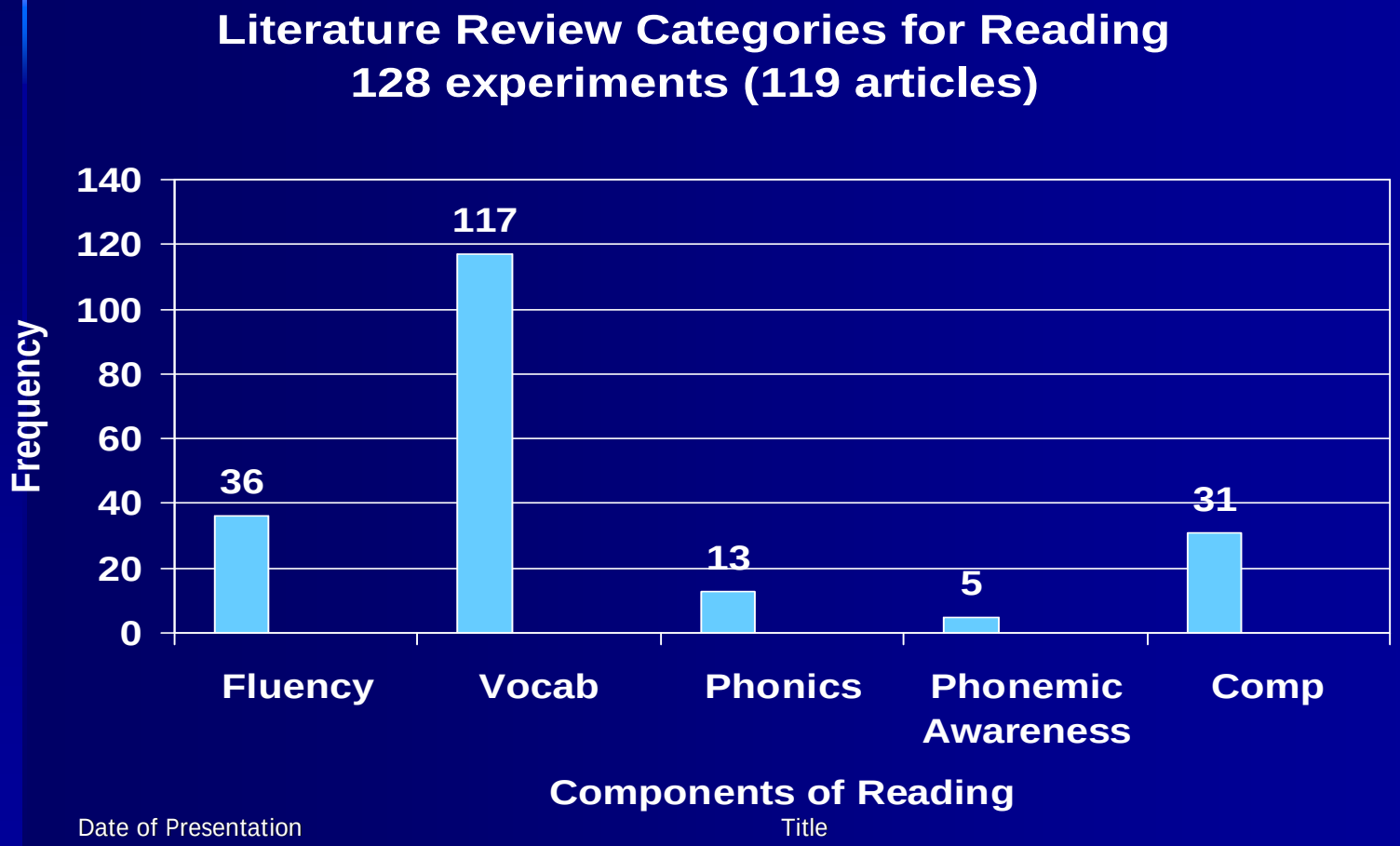
How Literature Was Identified

- A total of 362 terms or combinations of terms were used to define the research base.
- Both electronic and print resources were used.
- The table of contents in current refereed journals were manually searched.

Review of Reading

- 128 studies found within 119 articles
- Disabilities
  - N=617 moderate MR
  - N=124 severe MR
  - N= 60 autism
  - N=114 other terms (e.g., severe developmental disability)
  - N=204 other disabilities
- Age
  - Most elementary age
  - Rest were younger adolescents or high school transition
  - Older studies may not have specified age (used mental age)
- Setting
  - Most in self contained special education classrooms or research settings
  - A few in general education classrooms (N=14)

Literature Review Categories for Reading



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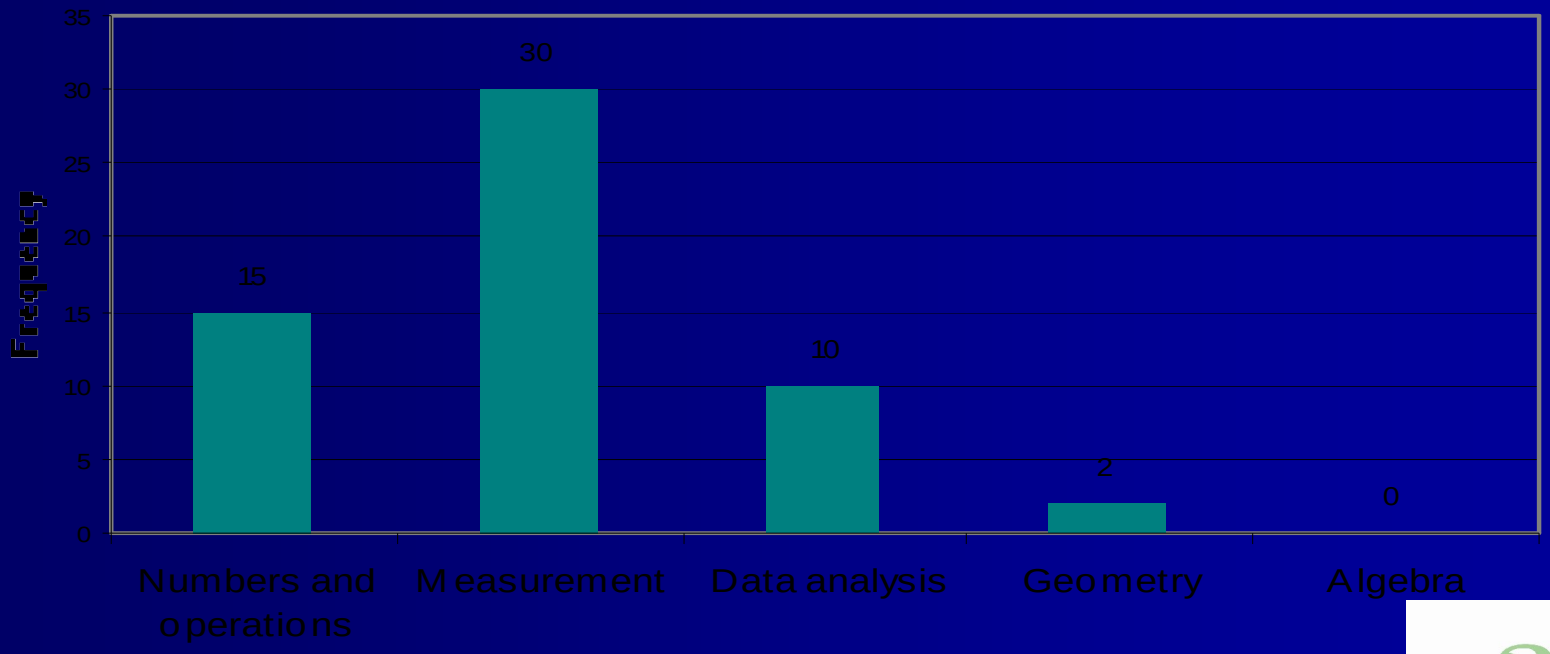
Review of Mathematics

- N= 55 experiments in 53 articles
- Disabilities
  - 47 experiments studied students with moderate MR
  - 16 experiments studied students with severe MR
  - 5 experiments studied students with autism
  - 1 experiments studied students with other disabilities
- Age
  - Most studies included participants ranging from elementary to high school
  - 13 articles also included adult participants
- Setting
  - 51% of the experiments took place in the special education classroom
  - 33% of the experiments took place in the community setting

Literature Review Categories for Mathematics



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We Have Strongest Evidence for…

- Teaching students to use money in context of making a purchase
- Using systematic prompting and fading
- Task analysis of steps to make the purchase

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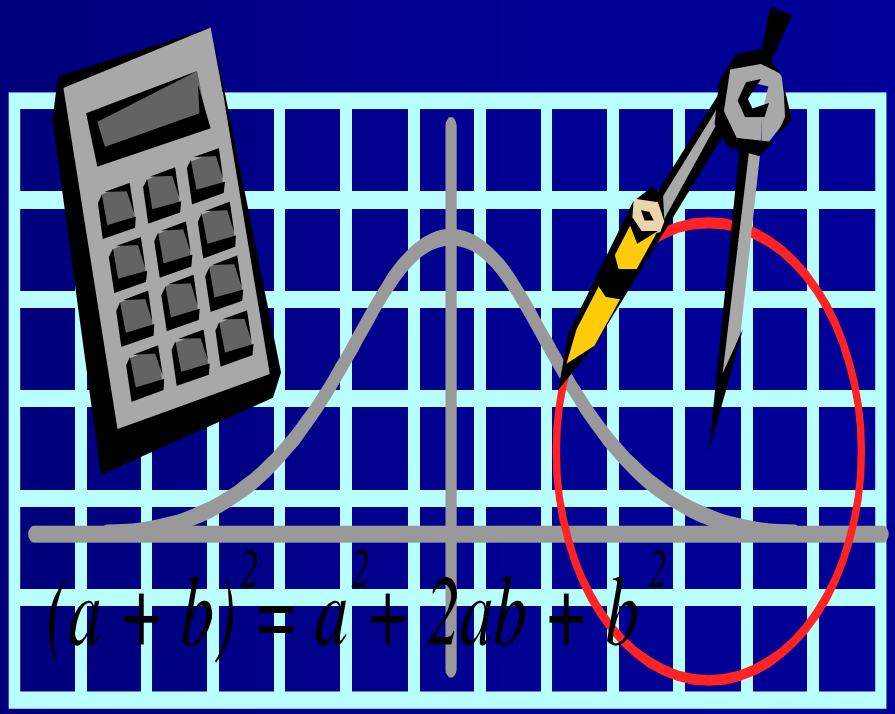
We Know The Least About Teaching This Population...

- Geometry and spatial sense
- Algebra, including patterns and sequences



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Review of Science

- Least frequently addressed area
- Only found 10 studies; all single subject
- Total N=42 participants
- All in separate special education contexts; one in a summer program
- Nearly all were Science for Personal and Social Perspective (First aid and safety research)

General Curriculum Access

- What it looks like…
  - Same/ similar materials and activities as peers in general education
  - Indicate comprehension of main idea of story by selecting picture
  - Use technology to solve math problem; chart data
  - “We’re learning how to do it better each day”
- Current status…
  - New for most educators; including experts in the field
  - Many students receiving academic instruction for the first time
  - Some educators worry about loss of focus on functional curriculum; see it as either/or

Advent of Assistive Technology

- Provides multiple means of representation of content (e.g., words, pictures, symbols, objects)
- Provides engagement alternatives (e.g., use of computer, digital materials)
- Provides multiple means of expression (e.g., communication systems)

(CAST, 2002)

What Is New in Current Curricular Context for 1% ...

- All students having the opportunity to learn academic content
- Sequential versus catalog approach to curriculum
- Availability of assistive technology and digitally accessible materials
- Less complex performances of grade level achievement standards
  - But high expectations are creating success stories

What questions should we ask about the 2%?

- Who are they?
- What are their learning characteristics?
- What is the theory of learning in academic content?
- How do they access the general curriculum?

Seymour Sarason

- "It could be argued with a good deal of persuasiveness that when one looks over the history of man the most distinguishing characteristic of his development is the degree to which man has underestimated the potentialities of men."

  (Christmas in Purgatory, 1965, p. 107)

References

Blatt, B., & Kaplan, F. (1974). *Christmas in Purgatory: A photographic essay on mental retardation.* Syracuse: Human Policy Press.

Browder, D.M., Wakeman, S., Spooner, F., Ahlgrim-Delzell, L., & Algozzine, B (manuscript submitted for publication). Research on reading for students with significant cognitive disabilities. *Exceptional Children*.

Center for Applied Special Technology. (CAST). (2002). www.cast.org.

Joseph, L. M., & Seery, M. E. (2004). Where is the phonics?: A review of the literature on the use of phonetic analysis with students with mental retardation. *Remedial and Special Education*, *25*, 88-94.

Kleinert, H. L., & Kearns, J. F. (1999). A validation of the performance indicators and learner outcomes of Kentucky's alternate assessment for students with significant disabilities. *The Association for Persons with Severe Handicaps, 24(2),* 100-110.

Kliewer, C., & Bilken, D. (2001). "School's not really a place for reading": A research synthesis of the literate lives of students with severe disabilities. *The Journal of The Association for Persons with Severe Handicaps*, *26*, 1-12.

NAAC Preconference Materials: