

Measuring the Enacted Curriculum for Students with Significant Disabilities

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http://paws.wcu.edu/karvonen/pres_home.htm



Acknowledgements

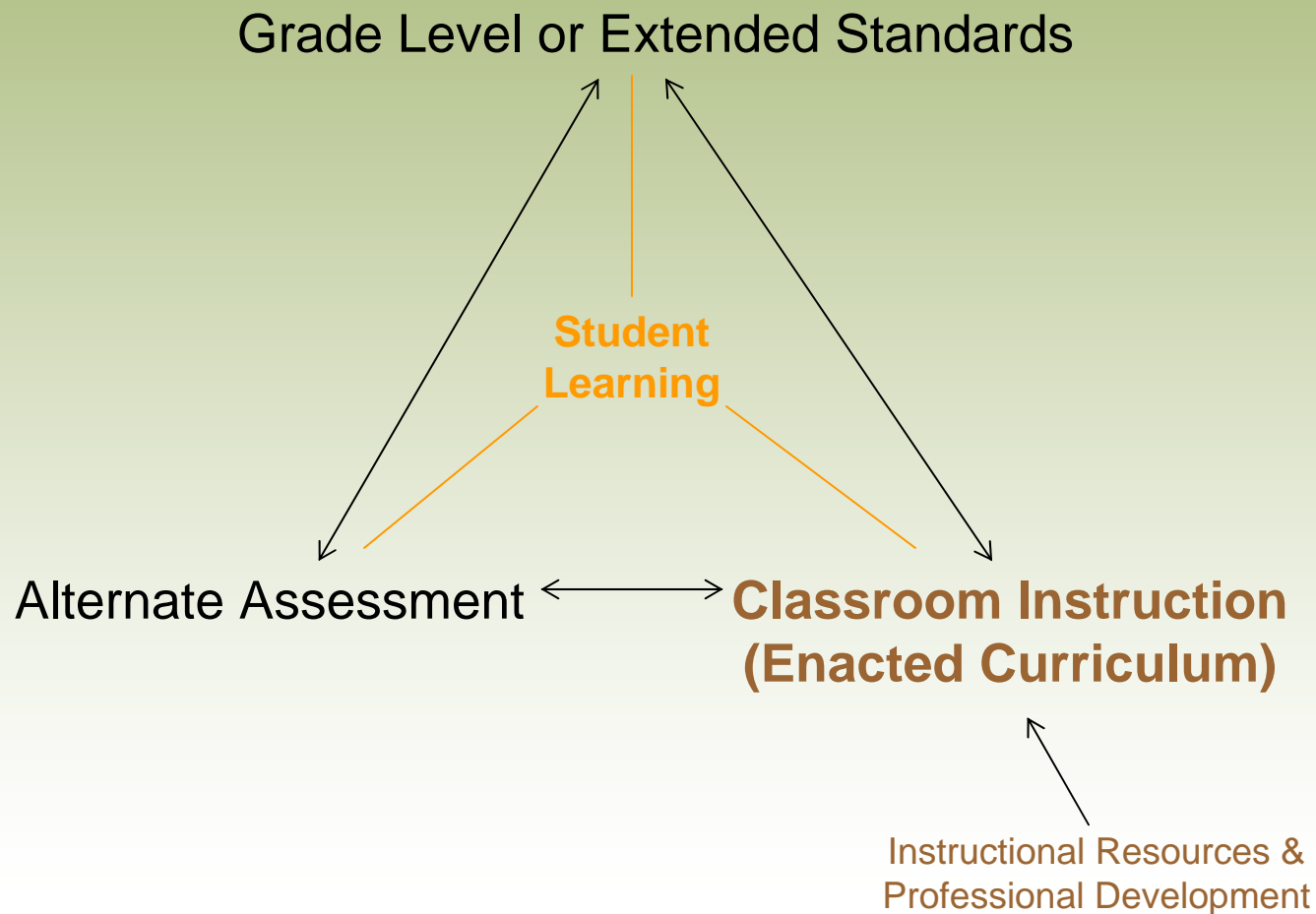
Reviewers

- John Smithson
- Bob Rickelman, Dave Pugalee
- Mike Burdge
- Ginevra Courtade-Little and Bree Jimenez
- Volunteer teachers in two states

Overall Project Goals

- Part of National Alternate Assessment Center (funded by U.S. Department of Education, Office of Special Education Programs, No. H324U040001)
- 5-year project:
 - Develop and use alignment methodology with states that have alternate assessments based on alternate achievement standards
 - Intervention studies with teachers, improving alignment of instruction with assessment and standards in order to improve student learning as measured by AA

Understanding Alignment



Background and Federal Legislation

- IDEA 1997:
 - Access to general curriculum, alternate assessments
- NCLB:
 - May use alternate achievement standards
 - Assessments must be aligned with content standards
- Difficulty in creating general curriculum access for the population
 - Prerequisite skills
 - Idea of grade level link
 - Limited research base for academic instruction strategies
 - Special educators' limited understanding of general education academics
 - Academic instruction for NCLB vs. curricular priorities in IEP

Curriculum Indicators Survey (CIS)

- Adapted from Surveys of Enacted Curriculum used in general education
- Teacher self-report measures
- Part I (Entire “target class”)
 - Demographics
 - Professional development
 - Classroom characteristics
 - Resources used to teach ELA and math
 - Instructional influences on ELA and math instruction
 - Use of types of classroom assessment in ELA and math

CIS (continued)

- Part II (Specific student in mind)
 - Adapted from blend of Alternate Assessment Collaborative (multi-state) Consensus Frameworks and Massachusetts Curriculum Frameworks
 - Content
 - ELA (250 items, 27 strands)
 - Math (178 items, 5 strands)
 - Instructional practices and expectations for student performance

Part II Example: Math

NUMBERS AND OPERATIONS	YES		NO		PLANNED		Performance Expectations						Grade Level
	0	1	2	3	4	P	A	MR	P	C	APP	ASE	
Concepts of whole and half	0	1	2	3	4	P	A	MR	P	C	APP	ASE	A
Counting	0	1	2	3	4	P	A	MR	P	C	APP	ASE	1
Abstract representation of numbers	0	1	2	3	4	P	A	MR	P	C	APP	ASE	

0= *No coverage* (Not an expectation for this topic this school year)

1= *Slight coverage* (1-10 lessons over the course of the school year)

2= *Moderate coverage* (11-20 lessons over the course of the school year)

3= *Sustained coverage* (21 or more lessons over the course of the school year)

4= *Intensive, systematic coverage* (daily/nearly daily instruction throughout the school year)

P = *No coverage yet, but planned for later this school year*

A: *Attention* (touch, look, vocalize, respond, attend, recognize)

MR: *Memorize/recall* (list, describe, identify, state, define, label)

P: *Performance* (demonstrate, follow, choose, count, locate)

C: *Comprehension* (explain, conclude, group, restate, review, translate)

APP: *Application* (compute, organize, collect, apply, classify, construct, solve, use)

ASE: *Analysis, Synthesis, Evaluation* (pattern, analyze, compare, contrast, compose, predict, extend, plan, judge, evaluate)

Content Matrix: % of Instructional Time*

	Attn	Mem/ Rec	Perf	Comp	Apply	ASE
Num & Op	26	5	16	2	2	
Algebra	6	2	1	1	1	
Geom	4	2			2	
Meas	16		4			
Prob	4		4			

* Sums to 98% because of rounding

Alignment: Proportional difference, CIS-AA

	Attn	Mem/ Rec	Perf	Comp	App	ASE
N&O	.26	-.15	.08	-.01	-.03	-.06
Algebra	.06	.02	.01	.01	.01	
Geom	.03	-.16	-.06		.01	-.01
Meas	.16	-.12		-.03	-.01	
Prob	.04	-.02	.02	-.02		-.05

Overall alignment index: .28

$$\text{Alignment} = 1 - \frac{\sum |X - Y|}{2}$$



Development

- Initial item pool
- Review by lead teachers
- Pilot test by 12 teachers
- Pilot use in full alignment protocol
- Review by experts
 - SEC
 - ELA
 - Math
 - Curriculum for students with significant disabilities

Results: Expert Reviews

SEC

- Agreement with survey development process
- Clarification of response options, rationale for some SEC choices
- Sacrificed level of complexity for understanding alignment – removed cognitive demand embedded in amount of coverage
- Suggestions for methodology in future observational study

Results: Expert Reviews

Content & Severe experts

- Appropriate descriptors for cognitive demand
- Clarification of response options and instructions
- Flagged 5 confusing items (ELA)
- Good alignment to NCTM strands and topics; non-technical language

Results: Pilot Implementation

- 12 teachers
 - p-K to transition age
 - Student teacher to 21-30 yrs experience
 - 50% had subject area certifications + EC
- Changes:
 - Clarified response options
 - Changed formatting – easier to follow
 - New items (e.g., principal as influence on what is taught, calculator use in math)

Results: Pilot Implementation (cont.)

- Follow-up email survey re: accuracy and thoroughness of coverage; appropriateness for all students; clarity of response options (n = 8)
 - Generally perceived as covering full range of Math and ELA curriculum
 - Some frustration about “too high functioning” and not specific enough at the lower level
 - Range perceived as relevant for all students with moderate to severe disabilities (except mixed at preK level); differences in adaptations

Results: Pilot Implementation (cont.)

Possible evidence of “stretching” to make things fit:

Open house performance → Presentation based on dramatic or literary production

Adaptive writing → Writing

Concepts of empty and full in math → Antonyms in ELA

Results: Pilot Implementation (cont.)

Tentative social validity evidence

- Capturing academics
- Missing individualization
 - Response modes
 - Presentation
 - Use of assistive technologies
 - Integration of academics in functional curriculum
 - Details on adapted materials

Future Research and Use

- Fix problems from expert review
- Validity studies
 - Think-aloud
 - Classroom observation
- Sampling methods
- Short form administered online
 - Broad base of info for state purposes vs. detail for professional development purposes