



Deciding What to Teach: Prioritizing Outcomes for Students with Complex Support Needs

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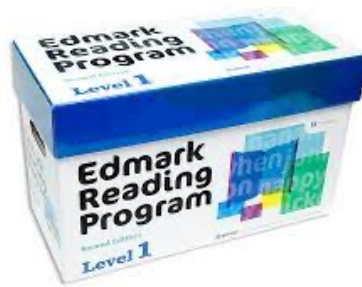
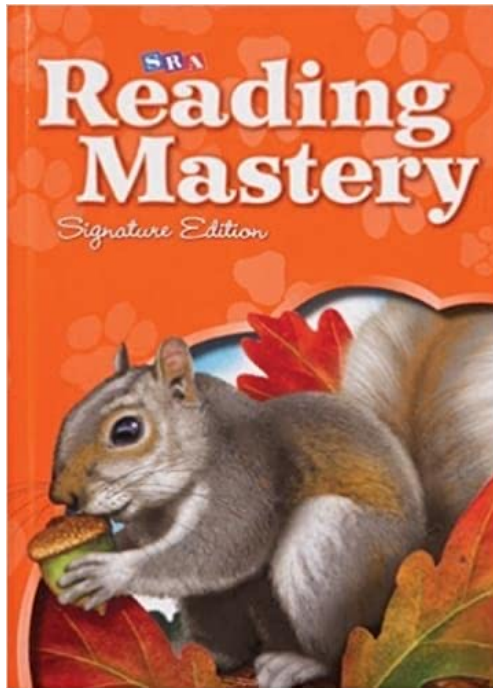



Students with complex support needs are the 1% of students with significant cognitive disability who take their state's alternate assessment based on alternate achievement standards.

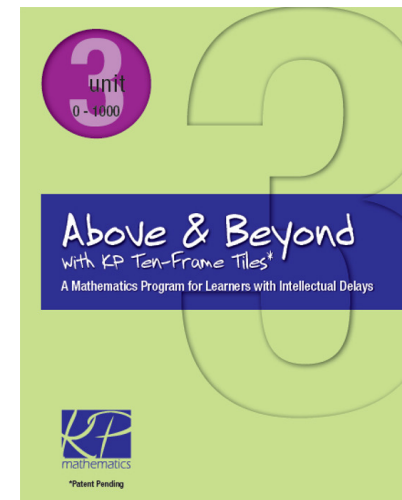
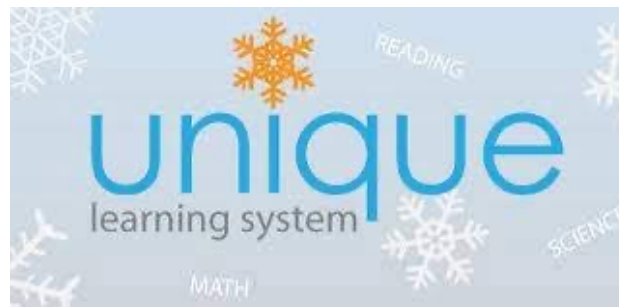
What and where do they usually learn?



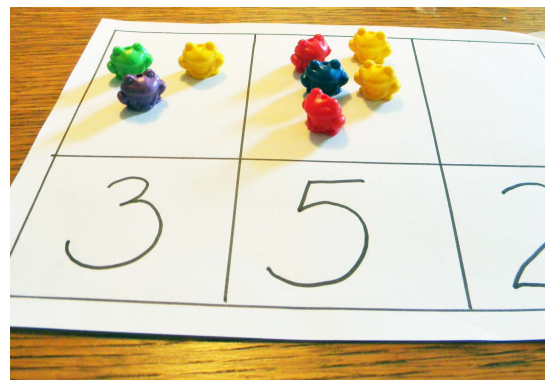
Watered down, remedial skills without a clear scope and sequence. Limited connections to general education standards.



Read It Once Again 



Instruction focuses on functional applications – not enjoyment or meaning making



Curriculum for students with complex support needs has typically been “functional”

- **These are essentially 1950's housewife skills**

- Cooking
- Cleaning
- Shopping
- Hygiene

- *It's time to evolve*



Special education curriculum is a dead end.
It does not result in an enviable life with
high expectations.



What should students learn?

- The IEP is not the student's sole curriculum or educational program.
- For each student receiving special education services, their educational program consists of three core components:
 - 1. The general education curriculum**
 - 2. The school's routines and activities**
 - 3. The student's IEP**



We need students to both
Access and Progress in
the General Education
Curriculum



Prioritizing Instructional Content

- What is taught in the general education curriculum?
- What does the student need to learn in addition to that curriculum?
- Of all these - which are the most important for the student to learn?



Research Questions

1. What content did teachers prioritize?
2. Did teachers find the intervention to be effective, efficient, and valid?
3. Did students learn prioritized content in the general education classroom?



Who were the participants?

- 41 teachers at two universities emphasizing inclusive education:
 - KU teachers ($n = 9$): Full time Special Education teachers on license waivers that required enrollment in a teacher preparation program while teaching
 - CSUN teachers ($n = 32$): Intern teachers in their own classrooms or traditional student teachers. None had preliminary credentials.
- Data collected between 2022-2023
- Students in PreK-12th grade
 - average age 10.5 years
 - Had complex support needs



What was the intervention?

- Professional development with coaching
- Identifying priority skills to teach in inclusive academic instruction
- Monitoring student progress on prioritized skills



Where was the intervention completed?

- The student's grade-appropriate general education classroom



What were the measures used?

- Social validity rating to assess teacher acceptability of the training and intervention
- Demographic surveys – teachers and students
- Priority planning worksheet (described next)
- Goal attainment scale to assess student progress on priority goals



Priority Planning Worksheet

- Collaborative discussion between general and special education teachers
- Plan for a unit for efficiency



Priority Planning Worksheet

Focus Student Name: James											
Part 1: Class and unit of study , including chapters or materials used and the main topic(s) covered in the unit.	Part 1a: How many class sessions are in this unit?										
Biology, digestive system	2 weeks										
Part 2: Access Skills and Prior Knowledge needed for this unit: Identify background knowledge and access skills needed to participate in the unit (e.g., reading, writing, communication, computer skills, all students are expected to have prior to the unit.)											
Reading Skills:	Writing Skills:	Communication Skills:	Math Skills:	Other:							
Read 10 th grade level Comprehend 10 th grade level • Use glossary and highlighted words in <u>text book</u>	• Write a 5 - paragraph essay • Use dictionary and thesaurus • Use word processor software	• Speak in complete sentences • 10 th grade vocabulary skills • Cooperative learning skills	• Use calculator accurately • Measure liquids • Use thermometer to take temperature	• Use computer for research							
Part 3: All Vocabulary in this unit (All Students): Identify the vocabulary <i>all</i> students will be introduced to in the unit. This vocabulary will be identified by examination of class readings, lectures, and vocabulary that will be tested. This could also include spelling words.											
1	Adenosine triphosphate	6	calorie	11	enzyme	16	liver	21	peristalsis	26	Small intestine
2	anabolism	7	catabolism	12	esophagus	17	metabolism	22	pharynx	27	Stomach
3	Basal metabolic rate	8	catalyst	13	gallbladder	18	monomer	23	polymer	28	substrate
4	Body mass index	9	digestion	14	Gastrointestinal tract	19	Oral cavity	24	Salivary amylase	29	
5	bolus	10	Digestive system	15	Large intestine	20	pancreas	25	Salivary glands	30	
Part 3a: Priority Vocabulary in this unit (Focus Student). Identify <u>up to 5</u> of the vocabulary most critical vocabulary <i>the focus student</i> will be introduced to in the unit. This vocabulary should be connected and related to class readings and lectures. It should be relevant to student needs now and in the future; it may represent adaptations to the breadth, complexity, or depth of the curriculum.											
1	Digestion	Factors to decide which are most important: (1) The likelihood these terms will appear in subsequent units; (2) The likelihood the term will open new opportunities for learning, employment, or relationships for the student; (3) Student interests and priorities.									
2	Swallow										
3	Stomach										
4	Energy										
5	Chew										

What is the class learning?

What background skills or prior knowledge is it assumed students have?

What vocabulary will students learn?
List it all!

What vocabulary is most important to know 20 years from now? (prioritized vocab)



What knowledge will students learn? List it all! ("At the end of this unit, students will know...")

What knowledge is most important to know 20 years from now? (prioritized knowledge)

What skills will students learn? List it all! ("At the end of this unit, students will be able to...")

What skills is most important to know 20 years from now? (prioritized skills)

Part 4: All Knowledge (Learning Objectives). Identify the learner outcomes or objectives for <i>all</i> students in the unit. For example, "at the end of this unit, students will know... (e.g., causes of the US Civil War)."			
1	Recognize that enzymes are designed to be highly specific, and the structure of the enzyme's active site determines the substrate it acts upon.	6	
2	Recognize that factors such as temperature, pH, and enzyme and substrate concentration affect the rate of an enzyme-catalyzed reaction	7	
3	List specific enzymes that digest carbohydrates, fats, and proteins at sites along the digestive tract	8	
4	Explain how energy is stored in ATP	9	
5	Outline what happens to a bite of food as it travels down the digestive tract	10	
Part 4a: Priority Knowledge for Focus Student. Identify <u>up to 5</u> of the most critical content knowledge <i>the focus student</i> should learn in the unit. This should be connected and related to class readings and lectures. It should be relevant to student needs now and in the future; it may represent adaptations to the breadth, complexity, or depth of the curriculum. You might ask, "in 10 years, what would I want students to remember?" to help answer this question.			
1	Outline what happens to a bite of food as it travels down the digestive tract		
2	Recognize enzymes that digest carbohydrates, fats, and/or proteins at 2-3 sites along the digestive tract		
3			
4			
5			
Part 5: All Skills students should have at the end of this unit. Identify the skills all learners should have at the end of this unit. For example, "At the end of this unit, students will be able to... (e.g., research information using the library, or develop timelines, debate an historical event, describe a civic concern, etc.)."			
1	Describe the structure and function of the organs in the digestive system	6	
2	Model the interaction between enzymes and their corresponding substrates.	7	
3	Design a laboratory experiment investigating the impact that environmental changes can have on enzyme function and analyze the results	8	
4	Analyze energy inputs and outputs in the body to assess overall health	9	
5		10	
Part 5a: Priority Skills. Identify <u>up to 5</u> of the most critical skills <i>the focus student</i> should learn in the unit. This should be connected and related to class readings and lectures. It should be relevant to student needs now and in the future; it may represent adaptations to the breadth, complexity, or depth of the curriculum. You might ask, "in 10 years, what would I want students to still be able to do?" to help answer this question			
1	Describe the s		
2	Participate in enzyme funct		
3	Analyze energ		
4			
5			

Factors to decide which are most important: (1) The likelihood this knowledge will be drawn upon in subsequent units; (2) The likelihood acquiring this knowledge will open new opportunities for learning, employment, or relationships for the student; (3) Student interests and priorities.



What other skills should we work on (communication, social, behavior)

Look at all priorities– from each area, what are the 4-5** most important things to focus on this unit? Goals for the unit

Plan to teach priority goals – how often and how will the goals be taught?

Part 6: Priority Skills in Communication, Social Skills, or Behavior. Identify up to 5 of the most critical non-academic skills *the focus student* should learn in the unit. This should be connected and related to social, communication, and behavior IEP goals or other sources of information. The skills you consider should be relevant to student needs now and in the future.

- | | |
|---|---|
| 1 | Communication – ask peer or adult for help during independent work |
| 2 | Communication – initiate and exchange in conversation with peers using conversation cards |
| 3 | Behavior – increase time working independently |
| 4 | |

Part 7: Cross-Prioritization. Review the priority vocabulary, knowledge, and skills from Parts 3, 4, and 5. Rank the top 3 or 4 vocabulary, knowledge, and/or skills for the student to learn in the upcoming instructional period (6 days of data collection for the instructional plan). Note: You do not need to have priorities from all three areas (vocabulary, knowledge, and skills). You must only select the topics that are true priorities for your student.

- | | |
|---|--------------------------------------|
| 1 | Vocab - Digestion |
| 2 | Knowledge - digestion |
| 3 | Skill - measure pH |
| 4 | Communication - peer social exchange |

4-5* Priorities; Be ready to adjust number. Select true priorities based on: (1) The likelihood this content will appear in subsequent units; (2) The likelihood the content will open new opportunities for learning, employment, or relationships for the student; (3) Student interests and priorities.

Part 8: Plan. Use the priority goals from (1) student and (2) student plan.

Skill (Part 7, priority goals above)	1	2	3	4
How many times per day (or week) will you work on this? Based on this, answer below...	1/day	1/day	1/day	1/day

What additional materials are needed to supplement general instruction? (e.g., slant board, adapted text, pictures added to PPT, vocabulary sheet with supplements to support comprehension)

1: Vocab - Digestion	2: Knowledge: Food Bite	3: Skill: Measure pH	4: Communication: Peer Social Exchange
<ul style="list-style-type: none"> Picture added to class PPT to create opportunity to ask James a question about digestion. Images and video examples of digestion integrated into instruction or student materials daily Anchor chart posted in class with picture representation of key vocabulary for the unit and a mini version available at James's desk 	<ul style="list-style-type: none"> Step by step, picture supported process should be created as an anchor chart in the class and a mini version should be available at James's desk Cards with each step and picture to be used for non-verbal responses during discussion of digestion. Step cards should be color coded to match the color of the corresponding body part in the human body visual support. 	<ul style="list-style-type: none"> pH test strips One liquid or other testable substance to briefly investigate each day at some point during class. Class takes guesses at pH and James tests then states number 	<ul style="list-style-type: none"> Conversation scenario/starter cards with common questions or comments about content. Red/green – support indicator for communication of understanding.

What *specialized instruction* is needed to supplement the GE instruction and who is providing it? Additional check-in from SPED teacher during independent work time; supports to peers to facilitate participation; pre-planned questioning by GE teacher to target prioritized goals)

1: Vocab - Digestion	2: Knowledge: Food Bite	3: Skill: Measure pH	4: Communication: Peer Social Exchange
<ul style="list-style-type: none"> GE, SPED, or para gain 	<ul style="list-style-type: none"> SPED teacher will find 2 	<ul style="list-style-type: none"> GE, SPED or para: Embed 	<ul style="list-style-type: none"> SPED or GE teacher



What <i>specialized instruction</i> is needed to <u>supplement</u> the GE instruction and who is providing it? Additional check-in from SPED teacher during intendent work time; supports to peers to facilitate participation; pre-planned questioning by GE teacher to target prioritized goals)			
1: Vocab - Digestion	2: Knowledge: Food Bite	3: Skill: Measure pH	4: Communication: Peer Social Exchange
<ul style="list-style-type: none"> • GE, SPED, or para gain James's attention when slide or material appears with embedded picture support • GE, SPED or para: Use embedded supports as multiple teaching opportunities to reinforce concept • GE, SPED or para: Pre-planned vocabulary question that aligns with class instruction and materials. Use of constant time delay to support acquisition. 1/day 	<ul style="list-style-type: none"> • SPED teacher will find 2 independent work times early in the unit to provide supplemental instruction about path of a food bite. Teaching and modeling with the numbered cards showing the steps to digestion. • SPED teacher, peers or paraprofessional will identify 1 opportunity per class for student to order and label steps. Use of least to most prompting to support acquisition. 1/day 	<ul style="list-style-type: none"> • GE, SPED or para: Embed opportunity to use Ph test strip with number identification as and entering or exiting class activity for James. Para or peer supports the completion of this activity. 1/day • Peers go <u>over steps</u> to find Ph number on test strip with James before starting activity and remind him it will be his job to read Ph. • 	<ul style="list-style-type: none"> • SPED or GE teacher provides peer communication training related to use of communication cards. • SPED or GE teacher provides James with instruction on content of communication cards and facilitates initial peer exchanges. • SPED teacher checks in with whole lab group at start of lab to help with identification of jobs that integrate input from James using adapted materials. • GE and sped teacher check in periodically throughout group work to facilitate discussion in James's group while also giving space for the group to work independently.
FINAL STEP: <ul style="list-style-type: none"> • Create a data collection sheet/s that you will use to collect data on all cross-prioritized goals. 			



Sample Priority Planning Data Collection Sheet

Student: James Week of: (Enter Date)	Data Collection Instructions: Circle '2' if James responded correctly independently. Circle '1' if James required any prompt to respond correctly. Circle '0' if James responded incorrectly (with or without prompt) or failed to respond. Provide opportunity for each goal at least once per day. Each week, total the number of points earned for each skill area.				
Vocabulary: When presented a picture, video depiction, or oral description of digestion and three oral/text answer options, James will orally state digestion.	Materials: Provide consistent pictures, videos, & definitions. Use field of 3 words for each definition.		Total Points per Week:		
	Monday	Tuesday	Wednesday	Thursday	Friday
	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
Knowledge: When asked to put the 6 steps of digestion in order and provided with a <u>color coded</u> human body and 6 colored step cards, James will place the steps in the correct order.	Materials: Provide color coded picture support and colored coded word cards.		Total Points per Week:		
	Monday	Tuesday	Wednesday	Thursday	Friday
1. Chewing (mouth)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
2. Swallowing (throat and esophagus)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
3. Stomach(digestion)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
4. Small intestine (digestion)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
5. Small intestines and large intestines (absorption)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
6. Colon and rectum (elimination)	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
Skill: When provided with a liquid, pH strips, and a pH color scale, James will dip the strip in the liquid then use the pH scale to identify and orally state the correct pH number.	Materials: liquid, pH strips, and a pH color scale		Total Points per Week:		
	Monday	Tuesday	Wednesday	Thursday	Friday
Step 1: Dip test strip in liquid	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>
Step 2: Use pH scale to find accurate pH number	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>	2 <u>1</u> <u>0</u>



Priority Planning Reminder!

- Students might learn everything; you are just going to focus your instruction, accommodations, modifications, and assessment on these 4-5 priorities.
- Adjust your expectations after completing the unit. Were they too low? Too high?



What general education content did teachers prioritize for students with complex support needs?



Math – 24% of all goals (e.g., solving fractions, graphing, labeling right angles)



Communication – 22% (e.g., speaking in class discussions, social communication, using AAC)



Academic Vocabulary – 15% (e.g., Learning the word “mutation”)



Science - 11% (e.g., physics, biology)



Phonics – 9% (e.g., blends and digraphs)



Other - (e.g., social skills, behavior skills, motor skills)



Social validity of intervention

“I love the priority planning worksheet - I think it is accessible and thorough, and supported the GE [general education] teacher and I to identify what pieces of the unit were most critical for the student.”

“This project turned out to be far more rewarding than I expected. It helped me really think deeply about how I can better support my students, it helped me build relationships with other teachers, I made new friends and allies at my school, my target student got much needed attention.”

“I love co-planning and co-teaching. There is no time, however, to allow for this kind of meaningful instruction and inclusion in my current school district. Our high schools are not set up to have inclusive environments for all students with the most significant support needs. Teachers like me are expected to be in a classroom tending to the students that have behavioral, medical or toileting needs and cannot be out of their space long enough to make this happen for the long haul.”



Did students learn the prioritized content when taught in general education classrooms?

- Teachers recorded student goal progress on a -2 to +2 scale (much less progress than expected to much more progress than expected), with 0 representing expected attainment
- Sample GAS Rubric:

Subject Area: English 8

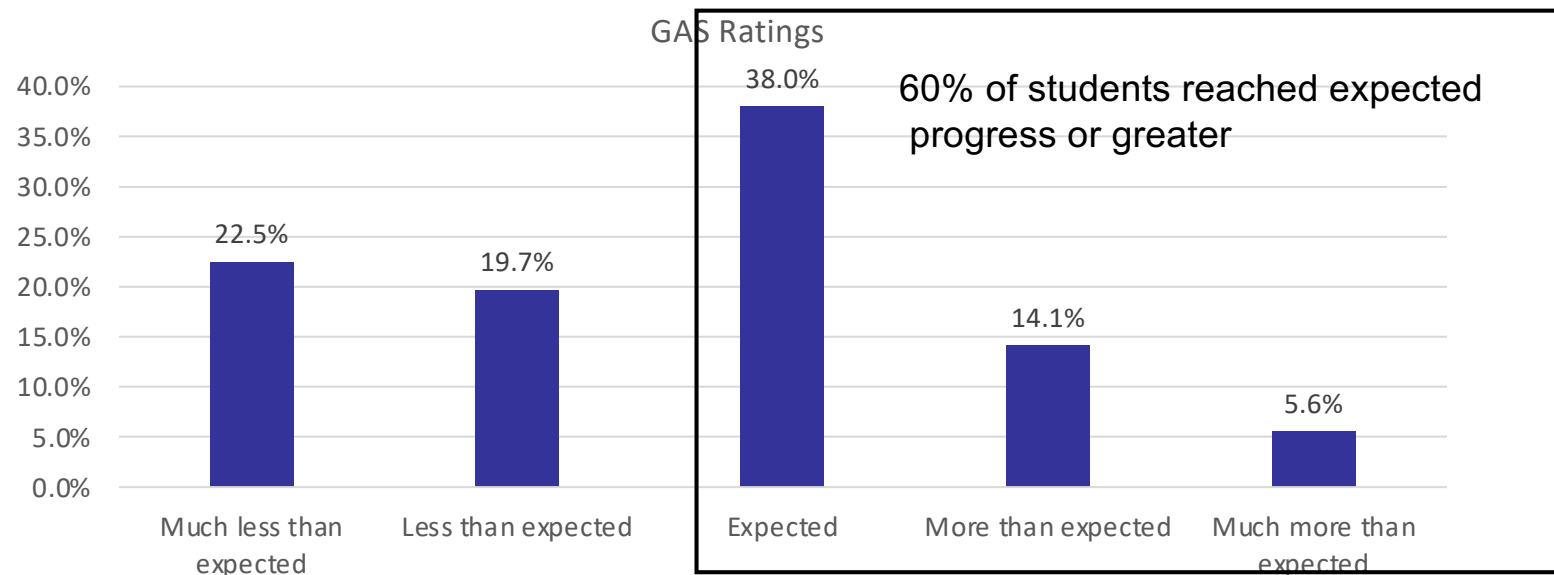
Academic Goal for the Unit: *When given a set of five comprehension questions from the novel being read in her 8th grade English class, (NAME) will answer three comprehension questions in the general education classroom by the end of the unit of study.*

GAS Rubric

Much less than expected (-2)	<i>The student will answer 1 literal comprehension question from a book read in the general education classroom.</i>
Somewhat less than expected (-1)	<i>The student will answer 2 literal comprehension questions from a book read in the general education classroom.</i>
Expected Level of Outcome (0)	<i>The student will answer 3 literal comprehension questions from a book read in the general education classroom.</i>
Somewhat more than expected (+1)	<i>The student will answer 4 literal comprehension questions from a book read in the general education classroom.</i>
Much more than expected (+2)	<i>The student will answer 5 literal comprehension questions from a book read in the general education classroom.</i>



GAS Ratings





What does this all mean?



Changing expectations of curricular inclusion

- Teachers can identify priority academic and non-academic skills to teach in the general education setting
- This is important because many teachers have difficulty conceptualizing curricular inclusion and incorrectly expect students with complex support needs to perform at or near grade level of their non-disabled classmates as a prerequisite for inclusion.
- Providing teachers with practices (like the priority planning tool) to support inclusion even when student's present levels are below grade-level expectations is needed.



Ground up change is needed

- To disrupt persistent segregation in schools, systems approaches are needed.
- But this is beyond the scope of most teachers; they need ways to implement changes that are efficient and effective
- Teachers found the priority planning intervention effective and efficient, suggesting this is one way to make ground up systems level change



Students learn the general education curriculum in the general education setting

- About 60% of student goals were rated expected (or better) learning outcomes— students can and do learn prioritized content
- About 40% of goals were rated as did not meet expected outcomes – perhaps because teachers were inexperienced in the general education curriculum, its pace, and content. We suspect with more practice teachers will set (and achieve) more goals.
- Teachers can, and should, use the general education curriculum to support student learning of general education content in the general education setting.



Could Support Grading (Grading Options)

1. *Progress towards meeting IEP goals and objectives:* Teachers assign grades based on mastery of IEP goals and objectives, rather than ONLY progress on state standards.
2. *Improvement over past performance:* teachers assign grades based on how well they determine the student is improving over past performance.
3. *Performance on prioritized, modified work:* Teachers assign a grade for a student based on accuracy of completing modified assignments and assessments.
4. *Improvement in student learning process (rather than product):* Teachers assign a grade based on student demonstration of learning to complete a task, rather than the quality or quantity of the final product.
5. *A system of modified weights and scales:* Teachers assign grades based on a modified system of assigning grades, so that, for example, only 50% accuracy is required to earn an “A” whereas other students would require 90% accuracy to earn an “A” grade.



Students have the right to learn challenging academic content with individualized supports

- Students with complex support needs remain segregated and have poor access to general education curriculum and settings
- A low-intensity intervention (priority planning) shows promise.
- We need to continue to identify and develop low-intensity strategies teachers can use that match their reported needs and gaps in knowledge and skill.



We need to prepare our students for an unknowable future

1997	1999	2000	2001	2004	2005	2007
Hotmail, Audible	Wifi, Napster	GPS, Text messaging	iPod, Wikipedia	Google, Facebook	YouTube, Google Maps	iPhone, Kindle, Netflix
2016	2015	2014	2012	2011	2010	2008
Pokémon Go	Self-Driving cars	Amazon's Alexa	Google Glass	Uber	iPad	Google Chrome
2017	2018	2020	2022	2023	2024	??
iPhone Face ID, Siri	Bitcoin	Zoom	Dall-E	ChatGPT	AI Diagnostics	



We cannot prepare our students to live in the year 2025.



Why teach sweeping the floor, when you could just use a Roomba?



Why teach balancing checkbooks, when you could use an app like Mint?



Why teach coins, when we could use Apple Pay?



Why teach measuring food, when you could get Blue Apron deliveries?



The list goes on...



To prepare our students for an unknowable future students must learn:

One must be part of the culture to be part of these innovations.

1. The general education curriculum – the academic standards and extracurricular activities
2. The school's routines and activities – membership, relationships, belonging
3. The IEP – important skills that *supplement* the general education curriculum & activities & routines that are unique to the student



Copy of the Worksheet



- <https://kucd.ku.edu/inclusive-education>





Thank you!

Questions, comments, thoughts, ideas?

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