

Testimony of HB2213

Senate Education Committee

By: Kaye Andersen, Mathematics Instructional Coach & Educational Consultant

Chairman Beard and Members of the Education Committee:

My name is Kaye Andersen, I am a retired middle school math teacher currently working part-time as an educational consultant. My master’s degree in education is in the cognate of teaching and learning math. I am here to provide supportive testimony for Senate Bill 2213; this bill provides targeted legislation to improve North Dakota students’ math proficiency.

Students’ math achievement scores have dropped both nationally and within our state for the past several years. We need only go to the [ND Insights public dashboard](#) to find evidence of this trend.

Percentage of students proficient or above on the North Dakota State Assessment

School Year	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10	Grade 11
2018 – 2019	49	43	48	47	40	47	30	33
2019 – 2020	-	-	-	-	-	-	-	-
2020 – 2021	48	36	42	39	38	38	28	28
2021 – 2022	48	37	43	40	37	34	27	33
2022 – 2023	50	38	43	41	38	35	29	31
2023 – 2024	50	39	46	41	39	37	25	32

Data taken from ND Insights Dashboard

When looking at these scores we can see that scores steadily decline within the same cohort of students from 3rd grade to 11th grade. This is demonstrated by the color code following the same group of students through the grades. This is a K-12 problem; not a K-5

problem or a middle and high school problem; it's a K-12 problem. Unlike content areas like social studies and science, most mathematics skills follow a sequential order. Each grade level relies on the mastery of the standards in the prior grade level in order to provide students the best chance at success. Senate Bill 2213 provides a balanced approach, addressing needs of all grade bands in order to support teachers and students at whatever level they are learning or teaching at.

My main expertise falls in the area of mathematics instruction. Senate Bill 2213, section 6 addresses mathematics curriculum and professional development. For the past few years, I have been working alongside schools and REAs throughout the state to support teachers in identifying the strengths and weaknesses in their current math curriculum (program and/or other main resources) and planning how to supplement classroom instruction with evidence-based instructional strategies to address the areas of greatest weakness. I would like to take this opportunity to share some background and data from this work.

In the fall of 2023-2024 the NDREA was awarded ESSR dollars to develop a *Features of Effective Math Instruction: Explicit, Systematic* instruction workshop. This workshop was held in each of the 6 REA regions and hundreds of teachers across the state participated. First, I would like to highlight the work of New Town Edwin Loe Elementary School. The FEMI ES workshop occurred in October of 2023 at the district level. All elementary teachers and paras attended. The teachers took what they learned and through their collective effort and the students' hard work, increased their NDSA math proficiency scores from 28% proficient (2022-2023) and to 47% proficient (2023-2024).

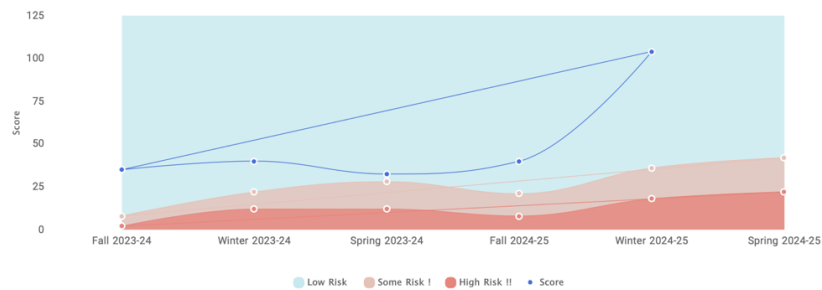
One specific area addressed during this workshop is fluency. Using [*the Institute of Educational Sciences Practice Guide #26: Assisting Students Struggling with Mathematics: Intervention in the Elementary Grades*](#) as the guide for best practice instruction, teachers develop their own fluency plan based on recommendation #6 in the practice guide. The following data is from the class of a teacher that attended this workshop.

The graph is an individual benchmark report on automaticity from a student in one of the two 4th grade classrooms of this teacher in Mercer County. Details of note on the graph:

- Graph represents 3 benchmarks scores from 3rd grade and the fall and wtr scores of 4th grade.
- The trend throughout 3 grade and the 4th grade fall benchmark remained relatively flat. The fluency plan was implemented at the beginning of the 4th grade year.
- The student's 4th grade wtr benchmarck score is at the 87%ile in her school and 95%ile nationally .
- The student's weekly rate of growth from fall to wtr in the 4th grade is 87%ile within the district and 98%ile nationally.

Individual Benchmark Report: AUTO L3 GOM

2024-2025



	THREE: 2023-24			FOUR: 2024-25		
	Fall	Winter	Spring	Fall	Winter	Spring
On-Grade Assessment						
Student's Score	35	40	33	40	104	
Weekly Growth		0.46	-0.08		5.03	
Some Risk	8	22	28	21	36	42
High Risk	2	12	12	8	18	22
School %ile	91	82	51	65	87	
District %ile	91	82	51	65	87	
National %ile	93	73	50	71	95	
Weekly School Growth %ile	n/a	38	4	n/a	87	
Weekly District Growth %ile	n/a	38	4	n/a	87	
Weekly National Growth %ile	n/a	34	4	n/a	98	
Weekly National Growth %ile By Start Score	n/a	n/a	n/a	n/a	n/a	

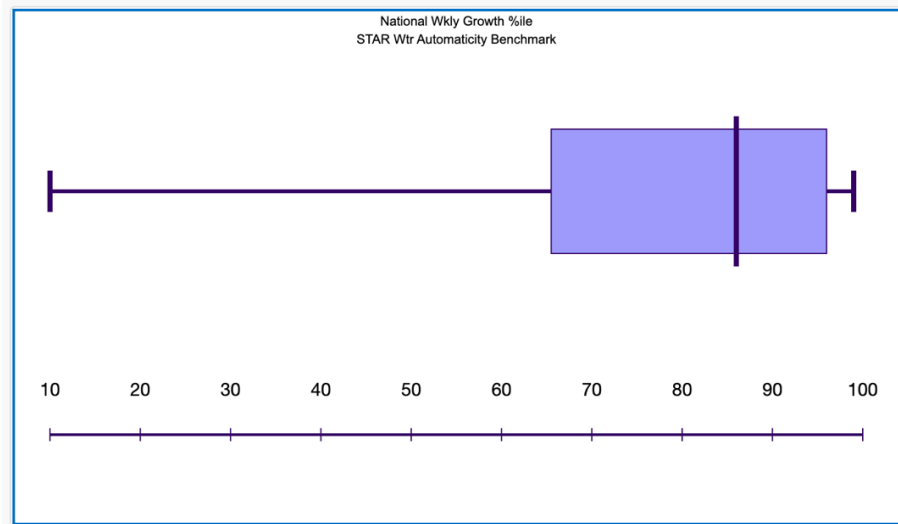
■ above 85 %ile
 ■ 31-85 %ile
 ■ 21-30 %ile
 ■ 20 %ile & below
 n/a student assessed outside the screening window

* Information has been disabled by your district manager.

Local norms are calculated based on class, school, or district enrollment in the selected school year.

Used with principal, teacher, and parent permission.

Classwide wtr benchmark automaticity data from the same classroom is represented in the box and whisker plot below. The graph demonstrates that 75% of the students had a weekly growth rate of 60%ile or higher (nationally). 25% of the students had a weekly growth at a 97%ile or higher growth rate (nationally).



These examples demonstrate how well planned, targeted professional development can support teachers as they strive to help North Dakota students improve their math achievement.

Chair Beard and members of the Committee, thank you for your dedication to improving education for all North Dakota students. This concludes my testimony and I will answer any questions you have at this time.