



K-7 Mathematics Instructional Materials Committee





Recommendation

To recommend Illustrative Mathematics for Adoption as Core Curricular Materials for Mathematics in:

- Grades K-5
- IMT 1 and IMT 2 (Grades 6-7)





Why do we need new resources for Math? Why Now?

Bellevue School District's math instructional materials:

- were no longer supported by the vendor (Math Expressions),
- not aligned to standards, and
- not meeting the needs of our students.

A Commitment to Equity for our Students

A cornerstone of educational equity is high-quality instruction through access to grade-level standards. To serve each and every student academically, it is critical educators are offered opportunities to deepen their knowledge of mathematics and that curricular resources are standards-aligned.



COVID Curriculum Adoption Impacts

Virtual Meetings

Time and Scheduling Complications

Attendance Variability

Member Fatigue and Capacity





Committee Member Composition



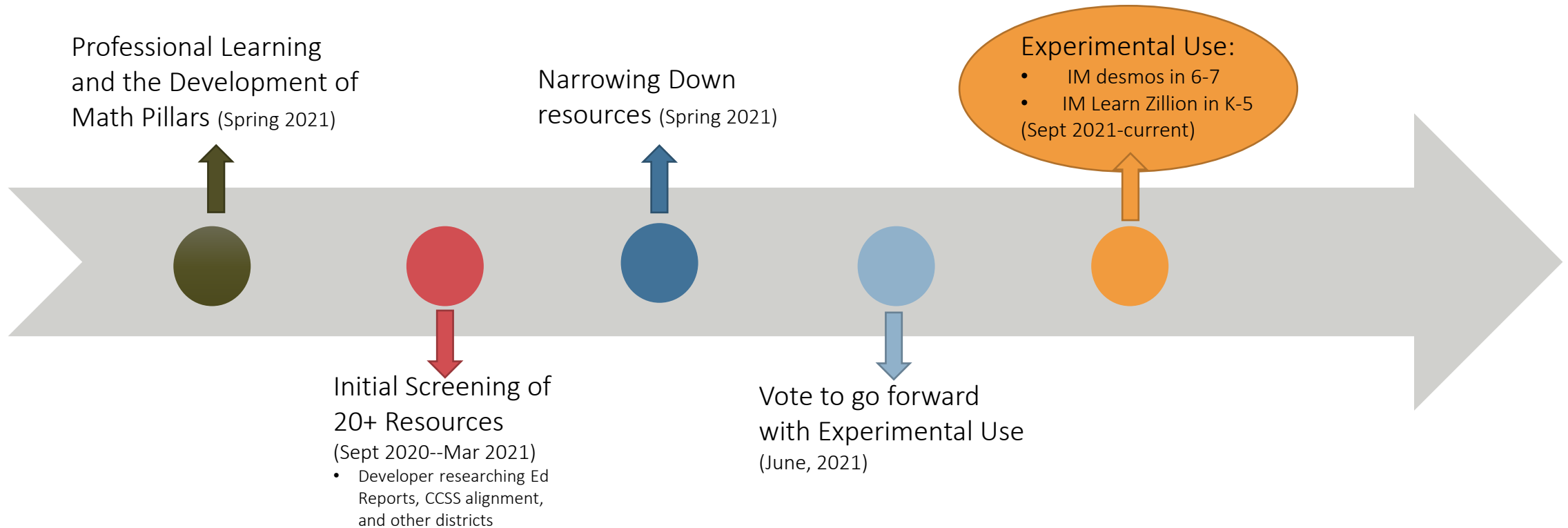
- 3 Facilitators
- 24 Elementary Educators ~ 4 per grade
- 10 Middle School Educators ~ 5 per course
- 4 Administrators, 2 Elementary and 2 Middle School
- 9 Family Representatives – 5 Elementary and 4 Middle School (by feeder patterns)
- 7 Teaching and Learning Department Staff
 - Curriculum Developers
 - Special Education
 - MLL/Dual Language/Immersion
 - Advanced Learning





Materials Timeline

NO curriculum will ever be perfect to every teacher. Does this curriculum get all of us the closest to a resource that we can collectively buy into and use?





Our Launch Point – In Partnership with our Educator Colleagues

- **Professional Learning in the Spring of 2021**
 - Theory of Action: *A depth of knowledge in the standards and shifts will set the stage for authoring a shared instructional vision for Mathematics, P-12, including an analysis of core and supplemental instructional materials resulting in a P-7 curriculum adoption.*
- **Dr. Phil Daro – Common Core Author**
- **Four Session Series – Elementary and Secondary Sessions**
- **Participating Educators had Opportunity to Consider Serving on Adoption Committee**





Initial Screening of Resources & Narrowing Down

- Outside consulting experts helped to narrow down the list of resources to two for the Adoption Committee to review
 - Phil Daro – Author of CCSSM
 - Dorie Withey - ANet Consultant
- Committee Evaluated Resources
- Narrowed Down Top Two
 - K-5: Illustrative Mathematics & Ready
 - IMT 1 and IMT 2: Illustrative Mathematics & MidSchoolMath
- Vendor Presentations
- Committee Deep Criteria Review – multiple perspectives





Implementation Options for 2021-2022 school year

June 3, 2021 meeting (K-7 Adoption Committee Meeting)

Once materials were chosen in the spring, we needed to determine how we would implement.

Option 1: Move forward with full adoption.

Option 2: Try on the new material and make a recommendation for adoption at the end of the year. This is known as experimental use.

- **Experimental Use:** are materials of a pilot nature and may be authorized for use by the superintendent or designee prior to School Board approval for general use throughout the district. These resources should be used for only one school year to either be submitted for approval or removed from use. Experimental materials do not require IMC or School Board approval.

[2020P Curriculum Development and Adoption of Instructional Materials.docx \(sharepoint.com\)](#)





Experimental use results from June 3, 2021

K-5 Resources		IMT 1 and IMT 2	
Yes	No	Yes	No
18/26 69%	8/26 31%	15/18 83%	3/18 17%

Materials currently being used in an “Experimental Use” status for the 2021-22 school year



K-5
Illustrative Mathematics 
6-7
Illustrative Mathematics 

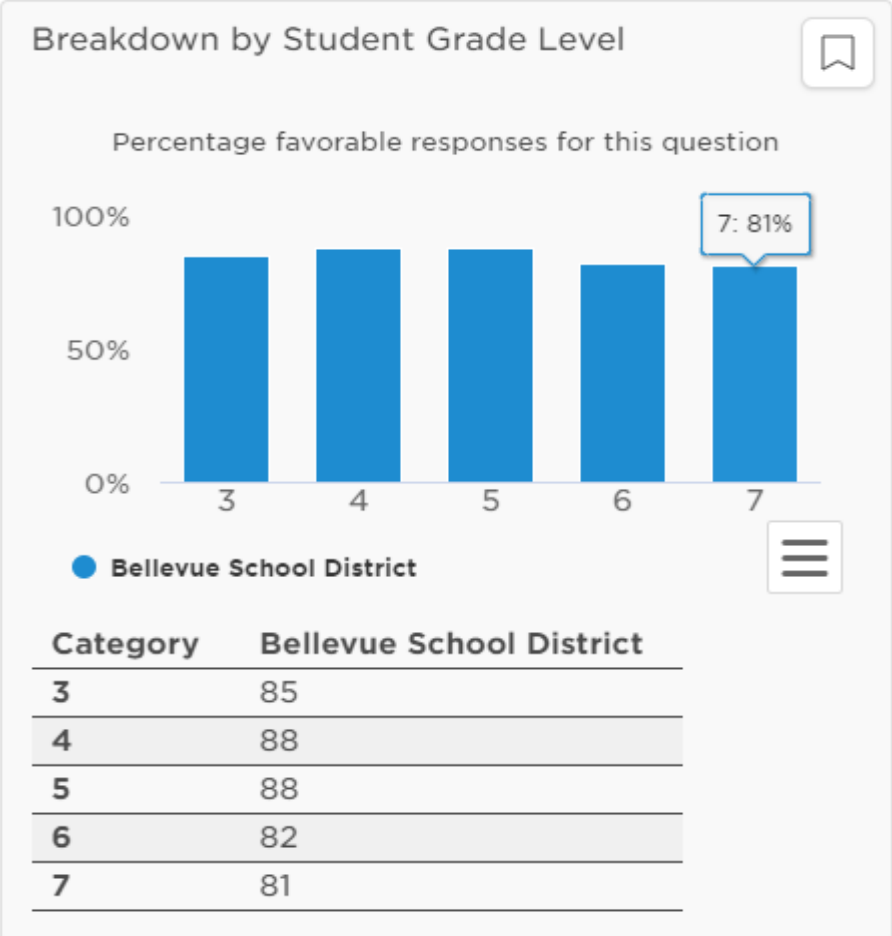
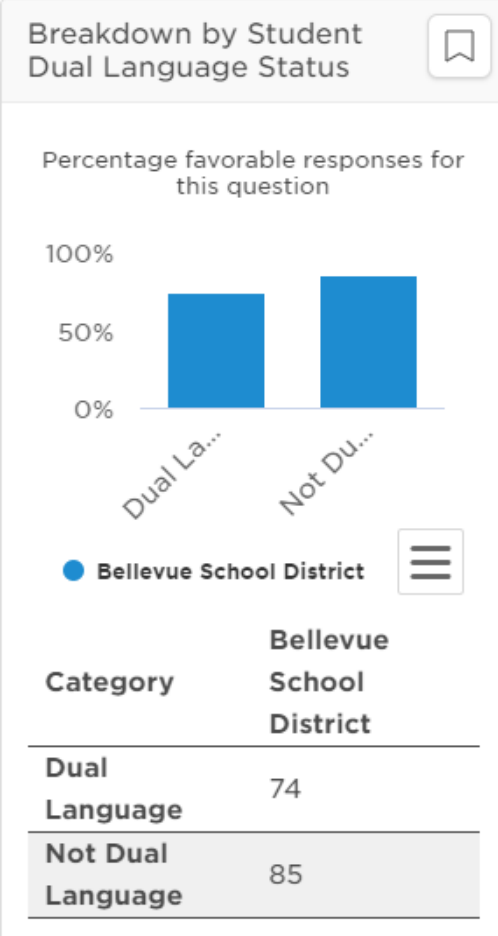
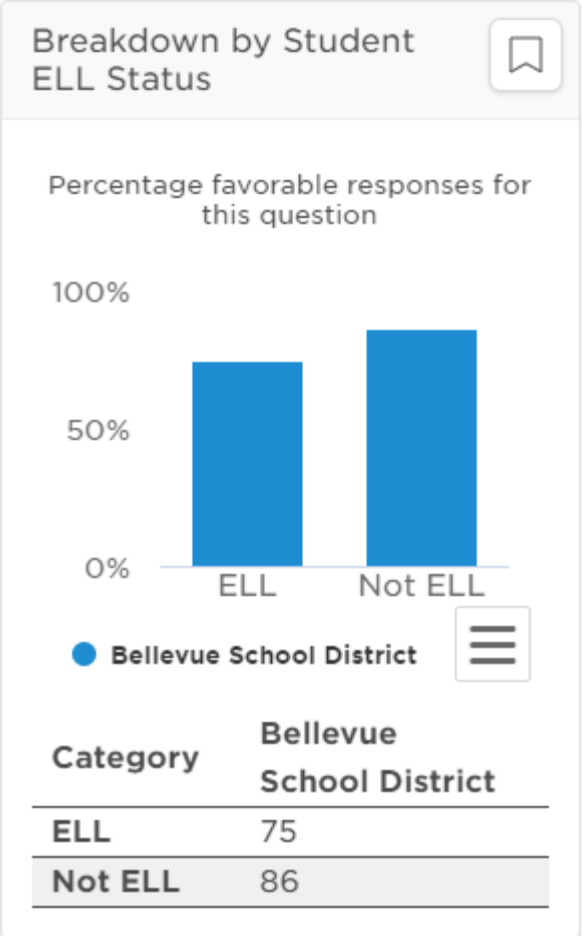
Data Collection During Experimental Use

Fall 2021

Constituent Groups	Data Sources
Students	Panorama, STAR Data
Teachers	Surveys, Listening Sessions
School/District Leaders	Survey
Families/Community	Survey & Community Nights

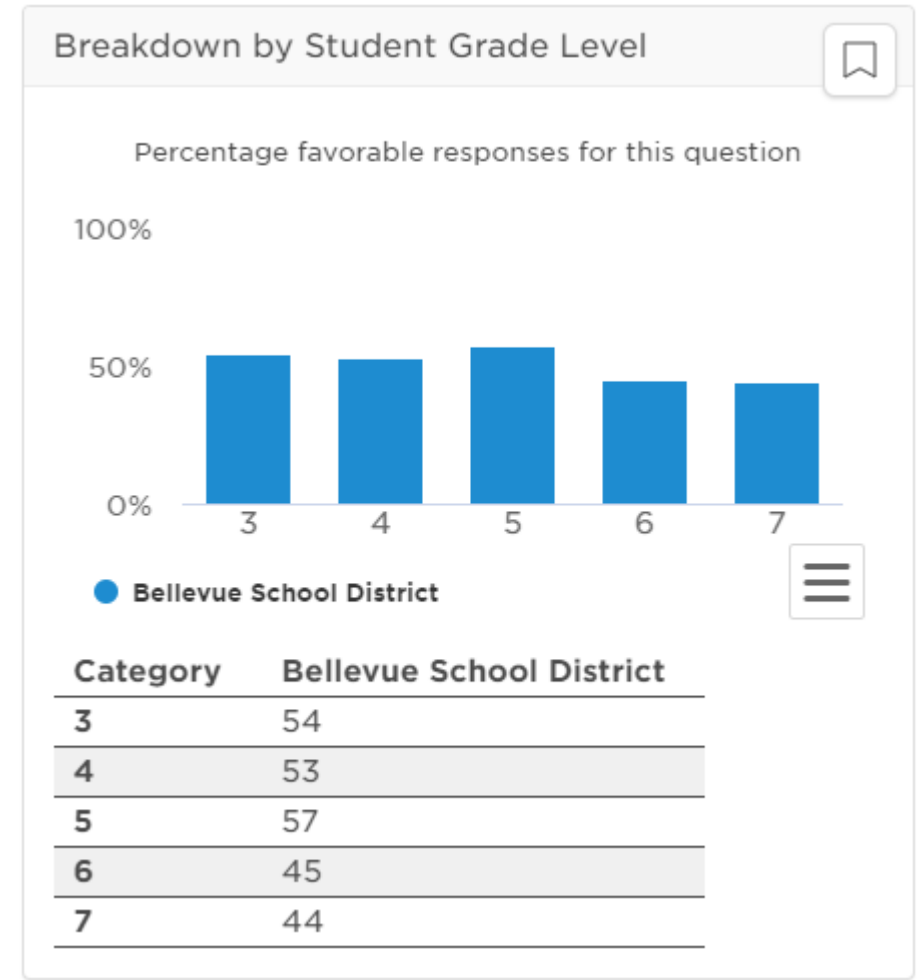
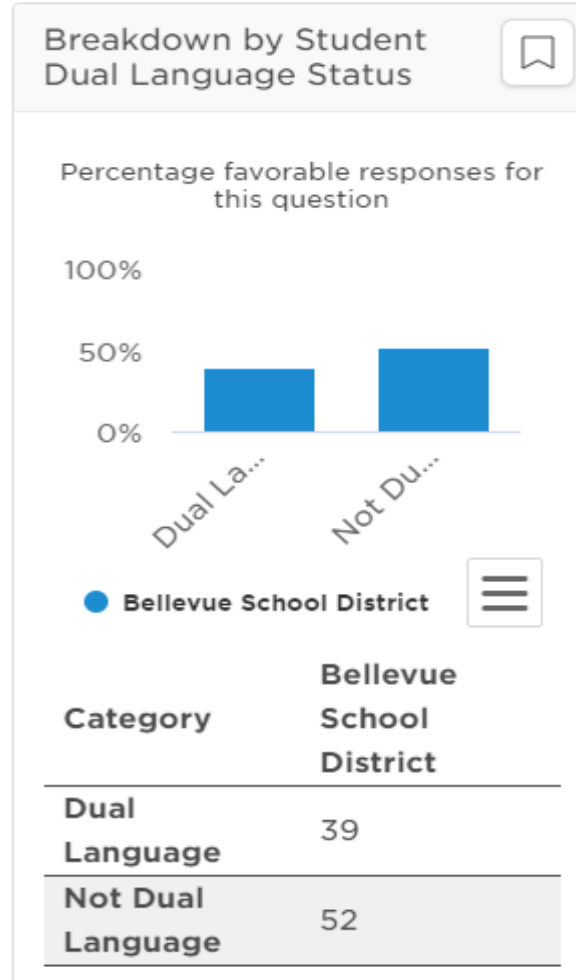
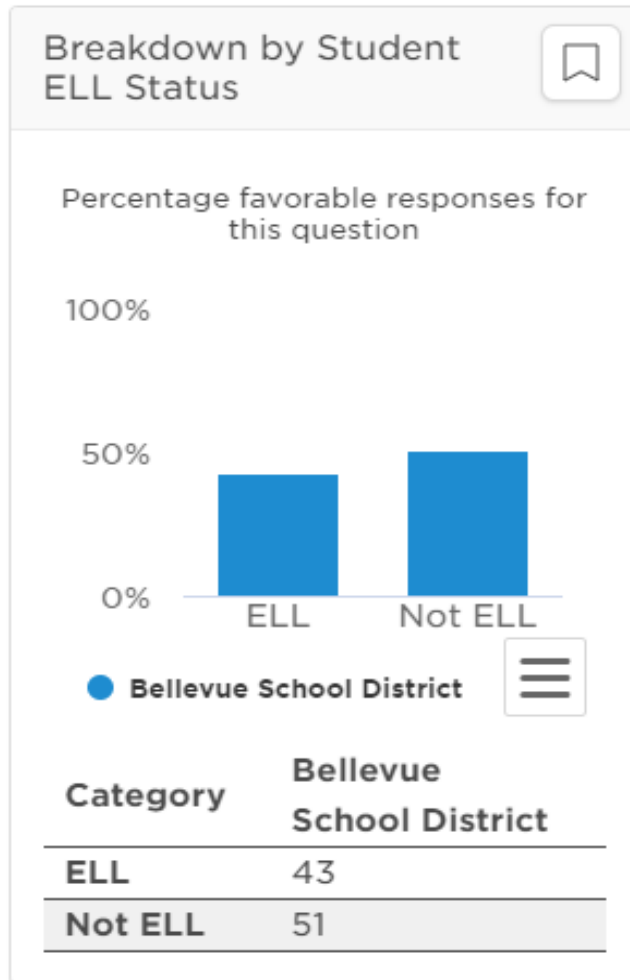
November Student Survey

In Math class, how often do you listen to your classmates share their thinking on a math problem? 84%



November Student Survey

In Math class, how often do you share your thinking about how to solve a problem? 50%



Student Responses

Grades 3-5: Star Math Proficiency and Growth

Subgroup	Star Math % Proficient				Star Math % Typical/High Growth**	
	Spring 2021	Fall 2021*	Winter 2022*	Change Fall to Winter	Fall 2020-Spring 2021	Fall 2021-Winter 2022
All	62%	61%	62%	1	71%	72%
Asian	79%	80%	81%	1	74%	75%
Black	30%	31%	32%	1	54%	65%
Hispanic	25%	22%	23%	1	59%	66%
Multi-Ethnic	60%	54%	54%	0	72%	72%
White	54%	55%	55%	0	70%	70%
Low Income	18%	23%	25%	2	49%	66%
English Learners	26%	22%	27%	5	54%	67%
Students with Disabilities	23%	23%	20%	-3	49%	60%
Female	59%	58%	58%	0	70%	71%
Male	64%	65%	66%	1	71%	73%
Advanced Learning	98%	97%	98%	1	80%	76%
Traditional	51%	48%	49%	1	67%	70%
Grade 3	64%	67%	67%	0	65%	72%
Grade 4	65%	66%	64%	-2	74%	71%
Grade 5	56%	52%	56%	4	74%	72%

Educator Responses

Spring Teacher Survey: Do you support the adoption of Illustrative Mathematics?

Respondents teaching IMT1/2

School	% Supporting Adoption of IM	Total # Responses
Total	88%	33
Big Picture	100%	1
Central Office	100%	1
Cherry Crest	100%	1
Chinook	100%	4
Highland	100%	4
Medina	100%	2
Odle	100%	5
Sammamish	100%	1
Somerset	100%	4
Blank	100%	2
Spiritridge	67%	3
Tillicum	60%	5
Tyee	0%	1

Respondents teaching K-5 Math

School	% Supporting Adoption of IM	Total # Responses
Total	54%	272
Central Office	100%	2
Lake Hills	93%	14
Stevenson	93%	15
Ardmore	83%	12
Cherry Crest	75%	16
Sherwood Forest	73%	22
Jing Mei	67%	6
Puesta del Sol	62%	13
Somerset	57%	21
Woodridge	57%	14
Spiritridge	53%	17
Clyde Hill	50%	14
Wilburton	50%	18
Medina	44%	9
Enatai	38%	13
Multiple Schools	33%	6
Phantom Lake	31%	13
Newport Heights	25%	16
Bennett	19%	16
Eastgate	0%	14

Elementary Educator Responses

Some elementary educators feel **positively** about math this year.

- Collaboration - having kids explain their reasoning - it's been a challenge, but also a success
- Like the hands-on activities
- Really like it, want to keep it, just need some tweaks
- It is challenging, but helping me grow as an educator
- Level of rigor in the conversation is off the charts
- Would never want to go back to where we were before!

On the other hand, some elementary staff feel **negatively** about math this year.

- Clearly need to differentiate between Learn Zillion and Illustrative Mathematics. Many educators expressed frustrations with Learn Zillion.
- We recognize that the timing of this adoption wasn't ideal during a global pandemic, however recognize that change needed to happen in regards to our math instruction. It's just been really hard.
- Lots of materials to prepare. Any time doing something for the first time is hard.
- Pacing guide is ambitious
- Way behind, even with the updates
- Balance of staying on pace and teaching the curriculum
- Need more practice problems

March Leadership Survey results

Do you, as a school leader, support the adoption of the Illustrative Mathematics for (K-5) or IM/Desmos (IMT 1 and IMT 2) curriculum?

Elementary	18/18	Yes
Middle School	4/4	Yes

March Leadership Survey Themes

Strengths

- Student discourse
- Student voice
- Students carrying the cognitive load
- Strong Conceptual thinking
- Multiple Access Points

Areas of Support

- Professional Learning
- Pacing
- Additional Practice materials
- More time to develop MLRs

Community/ Parent Responses

2. Please tell us what your students' experience with the Illustrative Math has been so far this year, and if you have any other comments about the math curriculum.

Theme	Number of responses
Positive - Awesome/ excellent/ better than before	44
Negative -Frustrated/ Confused	24
Language Heavy	3
Needs more practice / more rigor	24

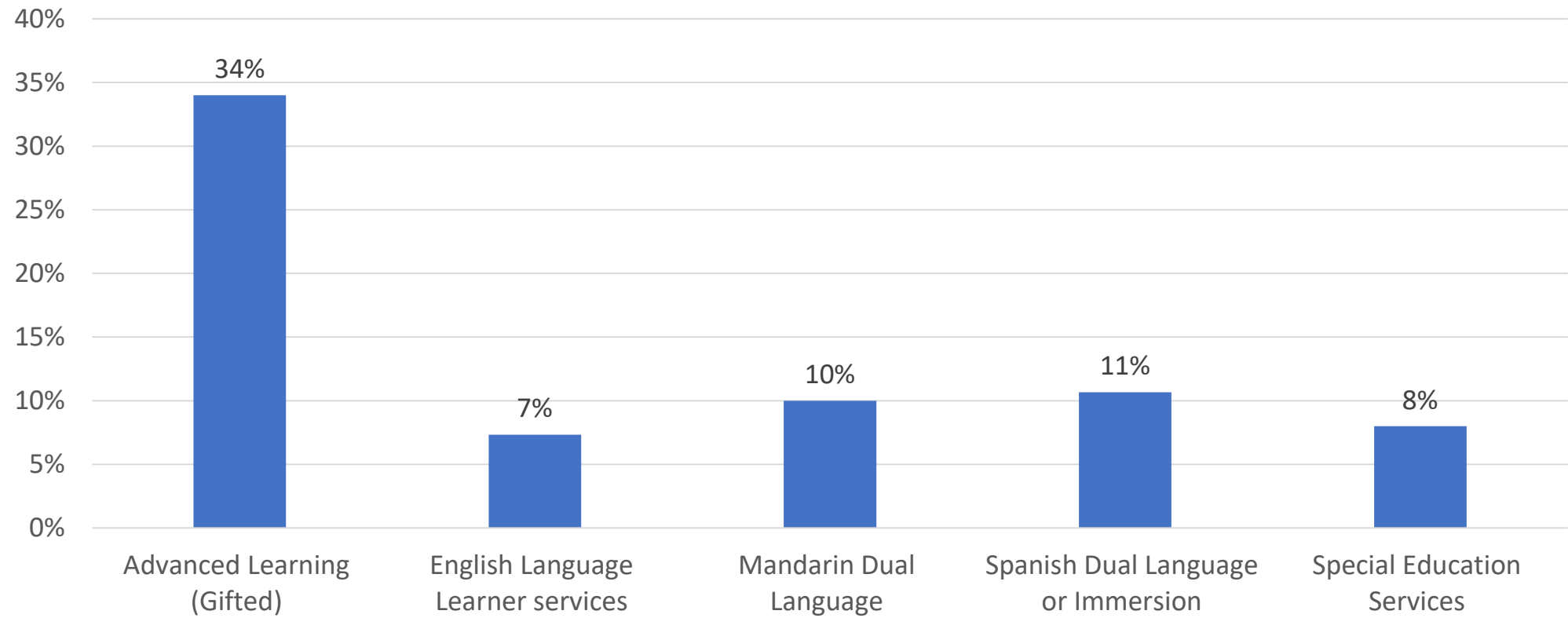
Community/ Parent Responses from

Hispanic's Family Event: Math Program Feedback:

Schools	Opinion about MATH changes
Ardmore	* It's easier and funny to learn math
Lake Hills	* Math homework * It's good to teach them in an easier way as in our countries. * My soon is happier and likes math * Improvement in math grades * He likes a lot learning math. * He really likes math. Love working on groups and do a lot of practices.
Sherwood Forest	* Improvements in math * It's a easier way to learn, he has interest and shares what he learns * My daughter soves problems differently than I used to do. * She knows the numbers and reads better. * A lot of homework and worried about scores and time.
Stevenson	* My son works differently. * She feel better with this new program. * My son used to struggle in math and now he is doing better and understand more math concepts.

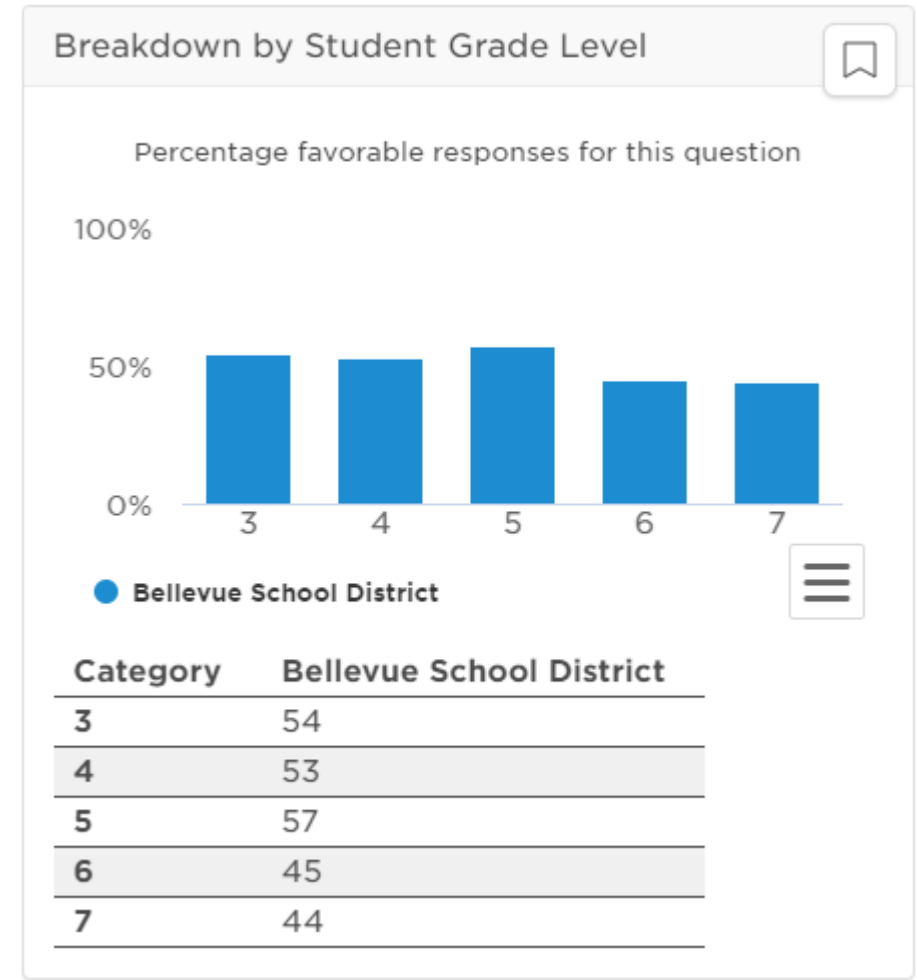
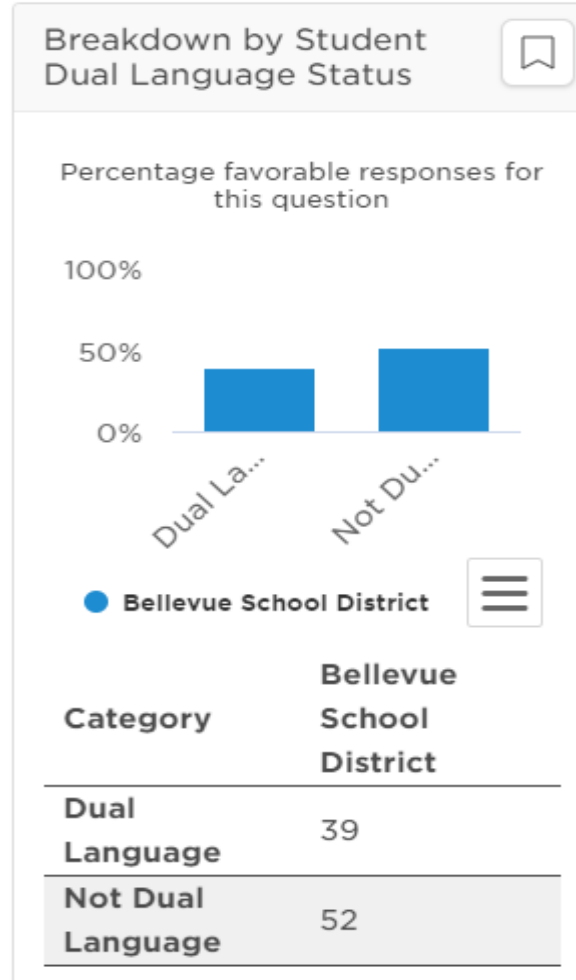
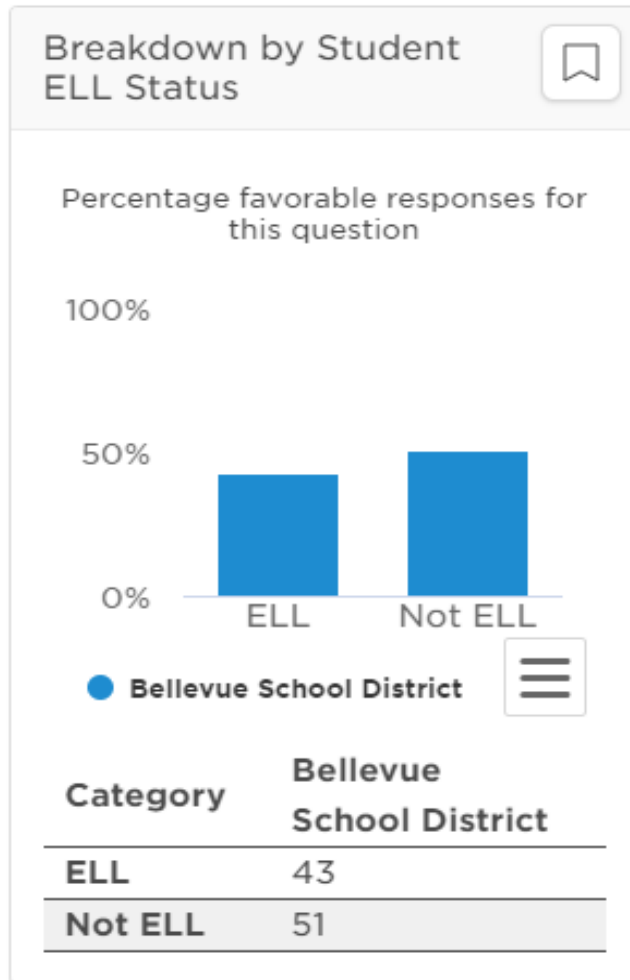
Community/ Parent Responses

3. Do your children participate in any of the following programs or services?
Please check all that apply.



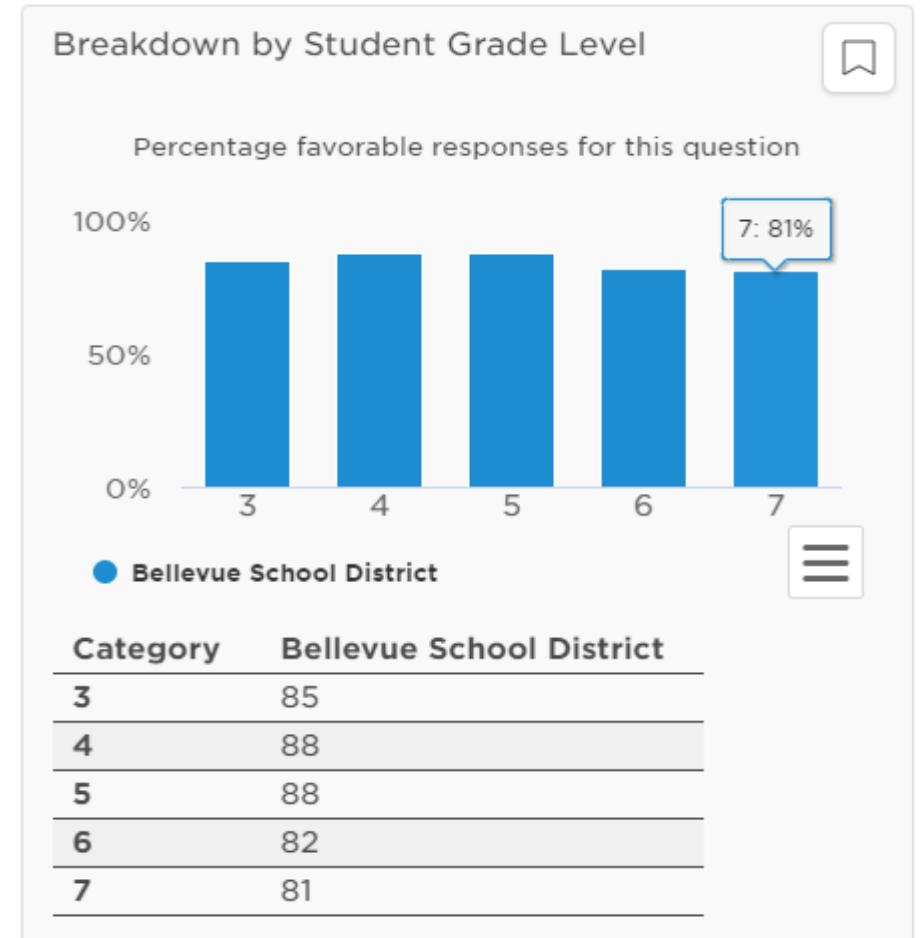
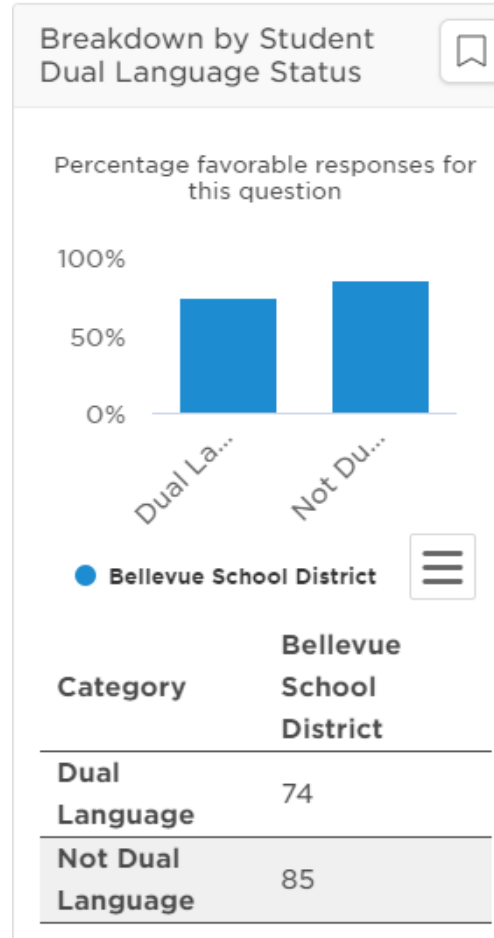
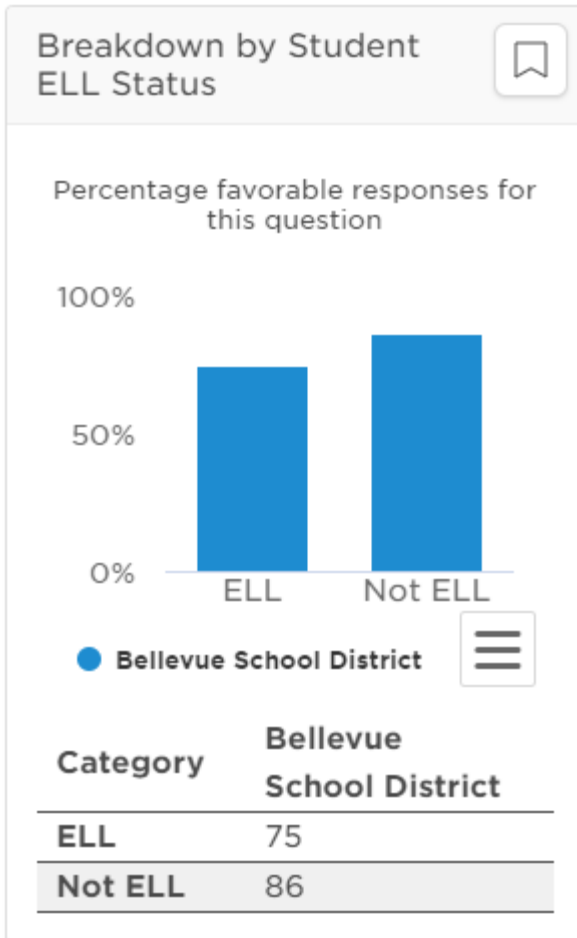
Student Responses

In Math class, how often do you share your thinking about how to solve a problem? 50%



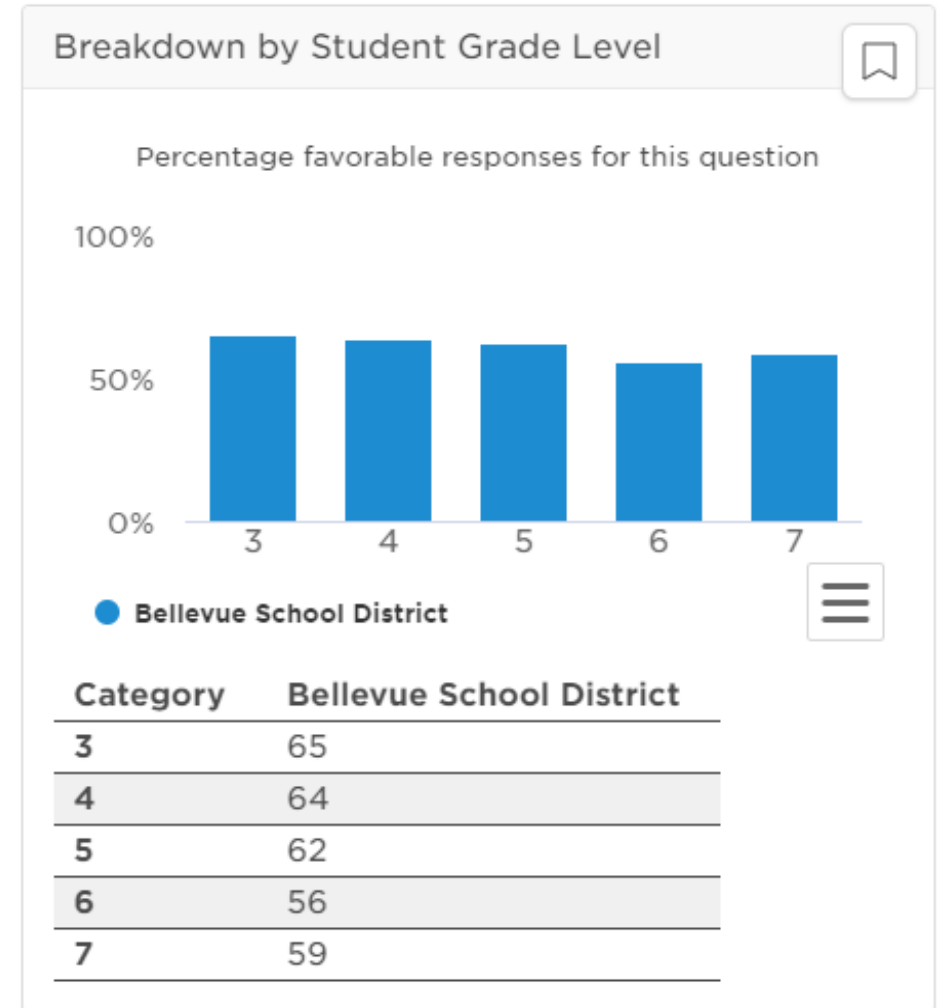
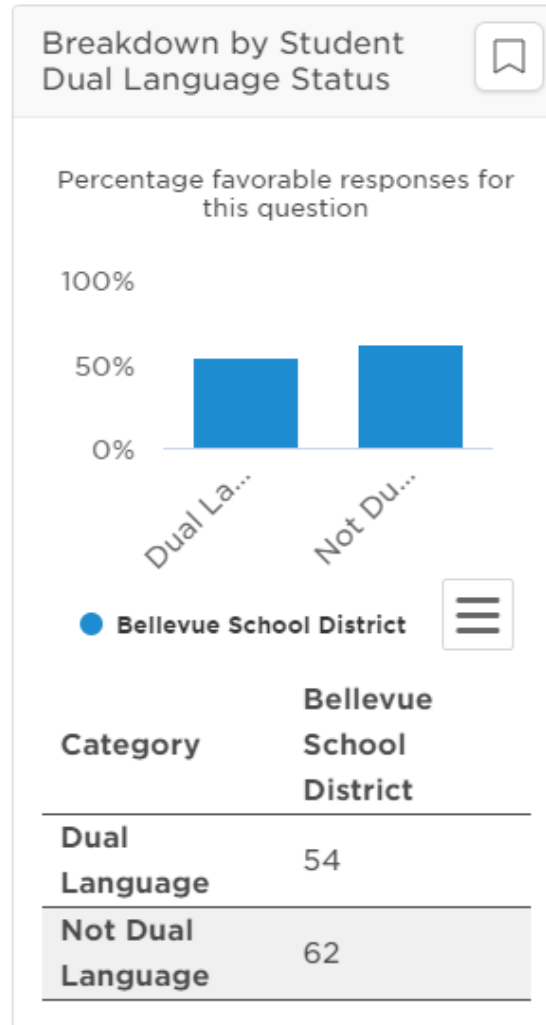
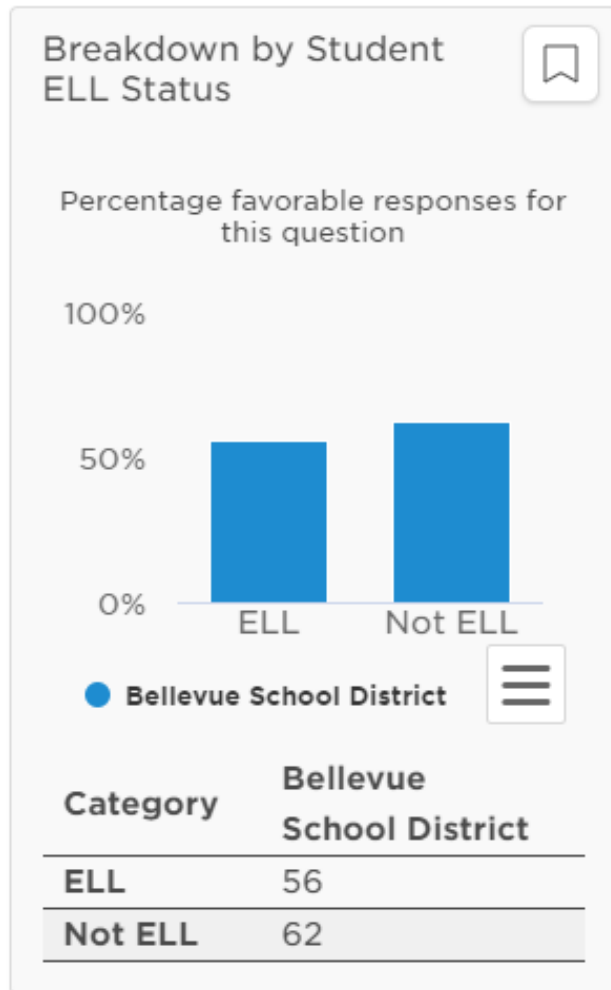
Student Responses

In Math class, how often do you listen to your classmate's share their thinking on a math problem? 84%



Student Responses

In Math class, how often do you work with classmates on math problems? 61%



“How is math going for you so far this year? What do you like and not like about math class right now?”

Generally, 6th and 7th graders feel positive about their math classes this year.

Teachers: Many comments mentioned their teachers who are nice, helpful, funny, good at explaining, class feels “safe” for students. **Positive relationship with teacher** has a lot to do with positive attitude towards math.

- I have a 4.0 and math has turned from my worst and most hated subject to one I actually look forward to and am okay with. (Odle, gr 7, IMT2)
- well i dont like the subject at all but the teacher i like him hes a good teach and has made me like math a little more i like going to his classes i felt very welcomed and he makes learning fun (Highland, gr 6, IMT1)
- I don't like math- and math doesn't like me. But, my math teacher has been making it clear and understandable for me (Odle, gr 6, AL IMT2)
- i love math this year (Tyee, gr 6, IMT1)
- i like how my math teacher not only teaches us math but gives us life lessons/tips. (Highland, gr 7, IMT2)
- i dont like math i never have liked math but honeslty im getting alot better so i feel pretty good about it sometimes (Tillicum, gr 6, IMT1)
- I like all of things. It's easy except some languages because I don't know well about America's math language. (Tyee, gr 7, MLL, IMT2)
- I love math its my most favorite thing in school right now its the the place that I feel the most safe inside of (Highland, gr 7, IMT2)
- its going great my teacher i so kind and helpful to everyone in the class she helps with anything we need and she makes me feel safe here (Tillicum, gr 6, MLL, IMT1)



Final Voting Committee Meeting – March 14, 2022

- In-Person
- K-7 Committee Members Together
- Data Review
- Connections to Pillars
- Lens on Equity & Discussion
- Final Vote & Recommendations



Final Vote for Adoption Committee

K-5 Resources

Option A: Recommend the IMC and School Board formally adopt Illustrative Math

13/17

76%

Option B: Discontinue Illustrative Math and implement experimental use of Curriculum Associate's Ready Mathematics (K-5) and/or Mid School Math (grades 6-7) next fall

2/17

12%

Option C: Delay the vote – commit to reconvene, what data needs to be collected by whom, and what threshold is necessary?

2/17

12%



Final Vote for Adoption Committee

IMT 1 and IMT 2 Resources

Option A: Recommend the IMC and School Board formally adopt Illustrative Math

**13/13
100%**

Option B: Discontinue Illustrative Math and implement experimental use of Curriculum Associate's Ready Mathematics (K-5) and/or Mid School Math (grades 6-7) next fall

**0
0%**



Exhibit E: Bias Review

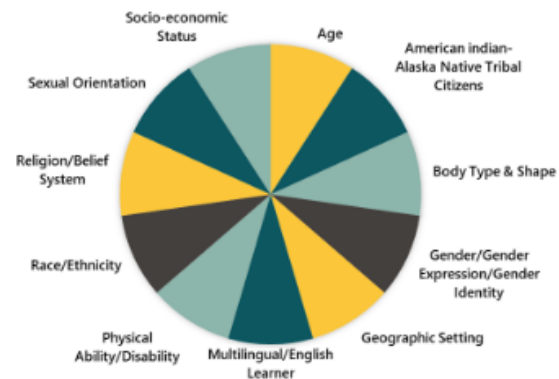
SCREENING TOOL FOR BIASED CONTENT

Title: Illustrative Mathematics Developer/Author: Illustrative Mathematics

Content Area: Math Grade Band: K-7 Year Published: 2020-2021

Diversity and Representation

Representation in the instructional material should reflect the rich cultural diversity and lived experiences of all students. Below are some aspects of diversity to consider as you review the criteria in the screening tool.



Include other identifiers of students and families in your community (e.g., military families, students experiencing homelessness, etc.):

Variety of Roles and Character Traits

Criteria guidance

Criteria	Met 2	Part Met 1	Not Met 0	NA	Comments and/or examples where criteria are exhibited
Characters/figures central to the instructional material show diverse groups in a variety of roles and occupations.					
different genders and gender identities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
different races/ethnicities/cultures/tribal citizens	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
persons with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
other identifiers important to our district	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
When present in the instructional material, character traits such as courage, leadership, intelligence, integrity, etc., are distributed among diverse groups.					
different genders and gender identities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
different race/ethnicities/cultures/tribal citizens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
persons with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
other identifiers important to our district	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	



Critical Criteria – attachment

Critical Criteria Review – Exhibit A

Critical Criteria Review – Exhibit A	
<p>Critical Criteria Review: Illustrative Mathematics K-7</p> <p>What is the original intent or purpose of this program/initiative/policy? The purpose of adopting new K-7 math instructional materials is to update the BSD materials to align with grade level standards in mathematics and provide high quality instruction and materials for all BSD students.</p> <p>Why: The success of the nation as we move through the 21st century continues to depend on ideas and skills. Mathematics is increasingly needed to understand the world today and fully engage in a democratic society. All members of society, if they are to make informed choices for themselves, their families, and their communities, need to be quantitatively literate and <u>have an understanding of</u> quantitative, scientific, and technological issues far beyond what was once adequate (Principles to Actions, 2014).</p> <p>The classroom instruction students receive is a critical element of their success in their education. Further, mathematics education, P-12, in BSD needs modernizing and enhancing to ensure that all our educators are set up for success and have the resources and knowledge to plan for and facilitate high quality instruction. The Teaching and Learning department created a professional learning partnership with Phil Daro, one of the authors of the Common Core State Standards, and Achievement Network (ANet) to create our shared vision and consider needs for modernizing and enhancing our current P-12 mathematics program.</p> <p>In addition, Bellevue School District’s math instructional materials:</p> <ul style="list-style-type: none"> were no longer supported by the vendor (Math Expressions), not aligned to standards, and not meeting the needs of our students furthest from educational justice. 	
<p>POTENTIAL IMPACTS AND RISKS How does this program / initiative / policy benefit and harm each group below?</p> <ul style="list-style-type: none"> Consider student well-being and equitable learning opportunities and experiences. Consider the history and current realities of those students furthest from educational justice. Consider students of color, multilingual learners, students with disabilities, students in advanced learning, students receiving free/reduced lunch, students identifying as LGBTQ+, etc.. Consider how this supports, elevates, and centers the needs of students furthest from educational justice. Consider how this promotes opportunities and access for those who have been historically excluded. How does this benefit all students equitably? 	
Student	<p>Benefits</p> <ul style="list-style-type: none"> Students are doing the cognitive lift <ul style="list-style-type: none"> Innovative approach to teaching mathematics Open-ended questions/inquiry-based Materials allow for productive struggle

	<ul style="list-style-type: none"> Moves away from memorizing to understanding Variety of interactions/engagement for each and every student <ul style="list-style-type: none"> Heavy focus on discourse/purposeful discussions between students Students share and showcase their thinking with each other Each lesson has resources for differentiation Each lesson has interactive components that all students can engage in Each unit contains clearly defined student goals and vocabulary Mix of digital and paper activities for students Mathematics is coherent and students understand the story of mathematics across grade levels Available in English and Spanish
Harm/ Barriers	<ul style="list-style-type: none"> Instructional materials <u>presents</u> a new paradigm for expectations in learning mathematics that could potentially cause some anxiety in students <ul style="list-style-type: none"> Students are required to engage with each other in math discourse throughout the lesson Greater access to paper/pencil materials to provide for additional practice and/or extensions, which includes homework
RISK MITIGATION <i>How will you mitigate potential impacts/risks and potential barriers?</i>	<ul style="list-style-type: none"> Cultivate classroom culture that validates and encourage student dialogue. Implementation and professional learning of the embedded Math Language Routines provides greater access to all students, especially our student furthest from educational justice. Teaching and Learning department will develop additional resources for practice, extension and/or homework. There is already a plan in place for summer work and/or a partnership with a vendor to provide this supplement.
Families	
Benefits	<ul style="list-style-type: none"> 40% of BSD families speak a language other than English at home. Illustrative Mathematics is a resource grounded in language development as the authors-built content around language routines. Language development is at the core of this resource and supports all learners. The Illustrative Mathematics tasks prompt the student to solve the problem in multiple ways. This provides space and opportunity for families to participate in the math.
Harm/ Barriers	<ul style="list-style-type: none"> Public facing documents that communicate unit learnings and show examples of the mathematics students are encountering and resources for “at home” practice is limited Families may not be familiar with learning math with a balanced approach of providing an equal emphasis on conceptual understanding, procedural fluency and application
RISK MITIGATION <i>How will you mitigate potential impacts/risks and potential barriers?</i>	<ul style="list-style-type: none"> Provide families with easily accessible resources and supports. This might look like, student access to an online practice, one-page documents or flyers that provide grade level standards and examples of the math. Continue to build out and communicate to families the grade level master <u>OneNotes</u> on the BSD website for public viewing. The Teaching and Learning department in collaboration with school leaders will host math nights to help provide details about the math program The Teaching and Learning department will identify an online platform to support digital and paper/pencil math access at home