

SECONDARY MATH PILOT TEACHER SURVEY

Overall Rating

Overall, the program provides a rigorous, powerful mathematics education for all children.

Distribution of Ratings

OR 1	Rating				
Pilot Program	5 - Excellent	4	3 - Acceptable	2	1 - Weak
Discovering	13%	57%	17%	13%	0%
Holt	16%	16%	36%	16%	16%

Overall Average Rating with School Breakouts

Average of OR 1	Pilot Program	
School	Discovering	Holt
BHS	3.8	3.5
Chinook		4.0
Highland	4.0	2.5
IHS	3.7	3.8
International	2.5	2.5
NHS	4.2	2.0
Odle	3.5	2.0
Robinswood	4.0	3.0
SHS	2.3	5.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.7	3.0

High Schools

OR 1	School						Average Rating
Pilot Program	Bellevue	Interlake	International	Newport	Robinswood	Sammamish	
Discovering	3.8	3.7	2.5	4.2	4.0	2.3	3.6
Holt	3.5	3.8	2.5	2.0	3.0	5.0	3.2

Middle Schools

OR 1	School					Average Rating
Pilot Program	Chinook	Highland	Odle	Tillicum	Tyee	
Discovering		4.0	3.5	4.0	4.7	4.1
Holt	4.0	2.5	2.0		1.0	2.4

Overall Rating (continued)

Overall, the program provides a rigorous, powerful mathematics education for all children.

Algebra Units (Fall Pilot)

Program ...	Discovering		Holt	
	Average Rating	# Teachers	Average Rating	# Teachers
Pilot Unit				
Growing, Growing, Growing (IMT 3)	3.8	4	3.3	3
Linear Models (IAG 1)	3.0	1	3.0	1
Linear Systems (HIAG 2)	3.8	6	3.0	9
Quadratic Models (HIAG 2)	3.9	8	2.7	6
All Algebra Units	3.8	19	2.9	19

Geometry Unit (Fall Pilot)

Program ...	Discovering		Holt	
	Average Rating	# Teachers	Average Rating	# Teachers
Pilot Unit				
Shapes & Geometric Reasoning (HIAT 3)	3.9	7	3.2	5
Geometry Unit	3.9	7	3.2	5

Instructional Balance

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Materials develop the acquisition of the three major parts of a balanced mathematics program: concepts, procedural skills and problem solving ability.

IB 1	Pilot Program	
School	Discovering	Holt
Bellevue	4.0	3.0
Chinook		4.0
Highland	4.0	2.5
Interlake	4.0	3.0
International	3.5	2.5
Newport	4.1	2.3
Odle	3.5	2.0
Robinswood	3.0	2.7
Sammamish	2.3	5.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.8	2.9

Materials develop fluency (e.g. efficiency, accuracy and flexibility) with procedural skills.

IB 2	Pilot Program	
School	Discovering	Holt
Bellevue	3.8	4.0
Chinook		4.0
Highland	5.0	2.5
Interlake	3.0	4.0
International	2.5	4.5
Newport	4.2	2.8
Odle	3.5	2.0
Robinswood	4.0	3.7
Sammamish	1.8	5.0
Tillicum	3.0	
Tyee	4.0	2.0
Average Rating	3.5	3.6

Materials help students learn algorithmic procedures but do not focus exclusively on algorithms.

IB 3	Pilot Program	
School	Discovering	Holt
Bellevue	4.0	2.5
Chinook		3.0
Highland	4.0	2.0
Interlake	3.3	3.5
International	3.0	4.0
Newport	4.6	3.0
Odle	4.0	2.0
Robinswood	4.0	3.0
Sammamish	2.8	4.3
Tillicum	5.0	
Tyee	5.0	1.0
Average Rating	4.0	3.1

Concepts are developed in a logical order and increase in depth and complexity during the unit

IB 4	Pilot Program	
School	Discovering	Holt
Bellevue	3.5	3.5
Chinook		4.0
Highland	5.0	3.5
Interlake	4.0	3.8
International	3.5	3.0
Newport	4.6	3.0
Odle	3.5	3.0
Robinswood	4.0	3.0
Sammamish	1.8	5.0
Tillicum	4.0	
Tyee	4.7	4.0
Average Rating	3.8	3.5

Instructional Balance (continued)
 Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Facility with procedural skills develops from a deep understanding of concepts rather than memorization

IB 5	Pilot Program	
	Discovering	Holt
School		
Bellevue	3.8	2.5
Chinook		3.0
Highland	5.0	1.5
Interlake	3.3	2.8
International	3.0	3.0
Newport	3.8	2.0
Odle	4.5	1.0
Robinswood	3.0	2.3
Sammamish	2.5	4.7
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.7	2.5

Problem solving (not solving algorithmic word problems) is an integral part of the acquisition of mathematical knowledge.

IB 6	Pilot Program	
	Discovering	Holt
School		
Bellevue	4.0	3.0
Chinook		4.0
Highland	5.0	2.0
Interlake	4.0	2.8
International	3.5	2.0
Newport	4.0	1.8
Odle	4.5	1.0
Robinswood	3.0	2.3
Sammamish	3.3	5.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	4.0	2.6

Cognitive Demand Analysis

Spring & Fall 2009 Teacher Pilot Survey Data N = 72

Item SE1 gave teachers a choice of the following 10 descriptors of mathematical tasks. They were asked to check each box where there was a significant amount of content (three or more occasions) where the mathematical tasks asked of students fell in each of the categories stated below. The task descriptors were paraphrased from the task analysis guide for cognitive demand (Stein & Smith, 1998, Mathematics Teaching in the Middle School, NCTM)

The percentages in the table below are the percentage of pilot teachers who checked each box for each program.

The materials used in the pilot contain mathematical tasks that...		Holt N = 33	Discovering N = 39
SE1A	involve repetition and rote memory.	79%	38%
SE1B	involve exact reproduction of previously seen material.	73%	41%
SE1C	are independent of underlying concepts.	18%	15%
SE1D	have little ambiguity about what needs to be done and how to do it.	79%	44%
SE1E	focus on producing correct answers rather than developing mathematical understanding.	48%	13%
SE1F	focus on the use of procedures to develop deeper levels of mathematical understanding.	61%	67%
SE1G	require students to make connections between multiple representations (visual diagrams, manipulatives, symbols, problem situations) to develop meaning.	45%	74%
SE1H	require students to use concepts that underlie procedures to complete tasks and develop understanding.	27%	62%
SE1I	require students to use broad general strategies and concepts rather than narrow algorithms.	33%	51%
SE1J	require students to access relevant knowledge and experiences and apply them appropriately to a mathematical task.	52%	62%

Instructional Strategies Supported by the Materials
Spring & Fall 2009 Teacher Pilot Survey Data N = 72

During the pilot I utilized the following instructional strategies...

Large Group Instruction (TM 8)

Program	Often	Sometimes	Seldom	Never
Discovering	36%	56%	8%	0%
Holt	76%	24%	0%	0%

Inquiry or Exploration Activities (TM 9)

Program	Often	Sometimes	Seldom	Never
Discovering	44%	49%	8%	0%
Holt	3%	47%	34%	16%

Cooperative Learning Activities (TM 10)

Program	Often	Sometimes	Seldom	Never
Discovering	31%	51%	8%	10%
Holt	15%	39%	24%	21%

Guided Practice (TM 11)

Program	Often	Sometimes	Seldom	Never
Discovering	38%	54%	8%	0%
Holt	73%	27%	0%	0%

Manipulatives & Simulations (with or without technology) (TM 12)

Program	Often	Sometimes	Seldom	Never
Discovering	21%	36%	26%	18%
Holt	6%	30%	15%	48%

Student Experience

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Materials foster the development of rich mathematical conversation (i.e. math talk) in the classroom. Materials encourage students to expose their thinking and engage with one another in learning the mathematics.

SE 2	Pilot Program	
School	Discovering	Holt
Bellevue	3.8	2.5
Chinook		3.0
Highland	4.0	1.5
Interlake	4.0	3.5
International	3.0	3.0
Newport	3.7	1.7
Odle	3.0	1.0
Robinswood	3.0	2.3
Sammamish	2.3	5.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.5	2.6

The program is designed so students are active learners who are involved in investigating mathematical patterns in order to acquire new concepts.

SE 3	Pilot Program	
School	Discovering	Holt
Bellevue	3.5	2.0
Chinook		3.0
Highland		1.0
Interlake	4.0	2.0
International	3.0	1.5
Newport	4.0	1.5
Odle	3.0	1.0
Robinswood	3.0	2.3
Sammamish	2.8	4.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.7	2.0

Prerequisite skills and ideas are presented before the more complex topics that depend on them.

SE 4	Pilot Program	
School	Discovering	Holt
Bellevue	3.8	3.5
Chinook		4.0
Highland	5.0	4.0
Interlake	2.7	4.0
International	2.0	4.5
Newport	4.1	3.5
Odle	3.0	3.0
Robinswood	4.0	3.3
Sammamish	2.3	5.0
Tillicum	5.0	
Tyee	4.7	5.0
Average Rating	3.6	3.9

The program provides opportunities for student to summarize and self-assess their learning.

SE 5	Pilot Program	
School	Discovering	Holt
Bellevue	3.5	3.0
Chinook		4.0
Highland		2.5
Interlake	3.3	3.8
International	3.0	3.0
Newport	4.0	3.0
Odle	3.5	
Robinswood	3.0	3.0
Sammamish	2.5	5.0
Tillicum	5.0	
Tyee	4.0	3.0
Average Rating	3.6	3.4

Program Components

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Materials are written at an appropriate level of rigor and address content well beyond a minimal level of competence.

PC 1	Pilot Program	
	Discovering	Holt
School		
Bellevue	3.5	3.5
Chinook		5.0
Highland	5.0	3.5
Interlake	3.7	4.0
International	3.0	2.5
Newport	4.1	2.3
Odle	3.5	2.0
Robinswood	4.0	3.3
Sammamish	1.8	5.0
Tillicum	4.0	
Tyee	4.7	1.0
Average Rating	3.6	3.3

Learning objectives specified in the materials are clear and measurable.

PC 2	Pilot Program	
	Discovering	Holt
School		
Bellevue	4.5	4.5
Chinook		4.0
Highland	5.0	3.5
Interlake	3.7	4.5
International	2.5	5.0
Newport	4.7	3.7
Odle	3.5	3.0
Robinswood	4.0	4.0
Sammamish	2.0	5.0
Tillicum	5.0	
Tyee	5.0	5.0
Average Rating	4.0	4.2

The text builds and supports mathematical vocabulary and develops the use of mathematical symbols.

PC 3	Pilot Program	
	Discovering	Holt
School		
Bellevue	4.3	4.5
Chinook		4.0
Highland	4.0	3.0
Interlake	3.7	4.3
International	3.0	5.0
Newport	4.3	3.3
Odle	3.0	4.0
Robinswood	5.0	4.3
Sammamish	2.8	5.0
Tillicum	4.0	
Tyee	4.3	4.0
Average Rating	3.9	4.1

Optional activities, advanced problems, discretionary activities, enrichment activities, and supplemental activities or examples are clearly identified and are easily accessible to teachers and students alike.

PC 4	Pilot Program	
	Discovering	Holt
School		
Bellevue	4.0	4.5
Chinook		5.0
Highland		3.0
Interlake	3.7	4.0
International	2.0	4.0
Newport	4.1	2.6
Odle	3.5	
Robinswood	4.0	3.0
Sammamish	2.3	5.0
Tillicum	5.0	
Tyee	4.0	5.0
Average Rating	3.6	3.7

Program Components (continued)

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Support materials, such as computer programs and manipulatives, are clearly aligned with the instructional goals of the program.

PC 5	Pilot Program	
School	Discovering	Holt
Bellevue	3.5	4.0
Chinook		4.0
Highland		1.0
Interlake	3.0	4.3
International	2.0	4.0
Newport	4.1	4.7
Odle		3.0
Robinswood	4.0	3.5
Sammamish	3.0	5.0
Tillicum	5.0	
Tyee	5.0	5.0
Average Rating	3.8	4.1

Materials include tables of contents, indices and glossaries containing important information to make it easier for parents or others to help students.

PC 6	Pilot Program	
School	Discovering	Holt
Bellevue	4.0	4.5
Chinook		4.0
Highland	5.0	3.0
Interlake	3.0	4.5
International	3.5	5.0
Newport	4.6	4.0
Odle	4.0	4.0
Robinswood	4.0	3.5
Sammamish	2.0	5.0
Tillicum	5.0	
Tyee	5.0	5.0
Average Rating	3.9	4.3

Examples are available in the text

PC 7	Pilot Program	
School	Discovering	Holt
Bellevue	4.3	5.0
Chinook		5.0
Highland	4.0	5.0
Interlake	4.0	4.3
International	3.0	5.0
Newport	4.4	4.5
Odle	3.5	4.0
Robinswood	5.0	4.3
Sammamish	2.3	5.0
Tillicum	4.0	
Tyee	4.7	5.0
Average Rating	3.9	4.6

Both embedded (formative) assessments and summative assessments are available for teacher use.

AS 1	Pilot Program	
School	Discovering	Holt
Bellevue	3.8	3.5
Chinook		4.0
Highland		3.5
Interlake	2.3	3.5
International	2.5	3.0
Newport	4.4	3.2
Odle	3.5	2.0
Robinswood	4.0	3.0
Sammamish	3.0	5.0
Tillicum	4.0	
Tyee	4.0	5.0
Average Rating	3.6	3.6

Universal Access

School Demographic Data

School	Total Students	ESL	ESL %	SpEd	SpEd %	Combined	Combined %
Bellevue HS	1,272	70	5.5%	82	6.4%	152	12%
Chinook MS	900	57	6.3%	40	4.4%	97	11%
Highland MS	457	76	16.6%	21	5%	97	21%
Interlake HS	1,225	59	4.8%	39	3.2%	98	8%
International	514	0	0.0%	35	6.8%	35	7%
Newport HS	1,606	8	0.5%	73	4.5%	81	5%
Odle MS	664	6	0.9%	31	4.7%	37	6%
Robinswood	149	4	2.7%	8	5.4%	12	8%
Sammamish HS	881	108	12.3%	79	9.0%	187	21%
Tillicum MS	670	43	6.4%	43	6.4%	86	13%
Tyee MS	775	4	0.5%	39	5.0%	43	6%

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Materials provide help for students who are below grade level, including different explanations, review, practice, guidance or other assistance.			Materials provide help for students who are above grade level and need enrichment.		
Average of UA 1	Pilot Program		Average of UA 2	Pilot Program	
School	Discovering	Holt	School	Discovering	Holt
Bellevue	3.3	4.0	Bellevue	3.5	3.0
Chinook		3.0	Chinook		5.0
Highland		3.5	Highland		3.5
Interlake	2.7	3.5	Interlake	2.7	3.5
International	2.0	4.5	International	3.0	3.0
Newport	4.0	3.3	Newport	3.5	2.8
Odle	3.0	3.0	Odle	4.5	2.0
Robinswood	4.0	3.3	Robinswood		3.0
Sammamish	1.8	5.0	Sammamish	2.3	5.0
Tillicum	5.0		Tillicum	5.0	
Tyee	4.0	4.0	Tyee	4.0	2.0
Average Rating	3.2	3.7	Average Rating	3.4	3.3

Universal Access (continued)

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Materials provide help for students who are English Language Learners.			Materials provide help for students who are absent from school so they can catch up with their peers.		
Average of UA 3	Pilot Program		Average of UA 4	Pilot Program	
School	Discovering	Holt	School	Discovering	Holt
Bellevue	3.3	3.5	Bellevue	4.0	4.0
Chinook		4.0	Chinook		4.0
Highland		2.5	Highland	5.0	3.5
Interlake	3.0	2.8	Interlake	3.0	4.5
International	1.5		International	1.5	4.5
Newport	3.8	3.5	Newport	3.8	4.2
Odle	4.0		Odle	4.0	
Robinswood	3.0	3.0	Robinswood	4.0	3.7
Sammamish	1.3	5.0	Sammamish	1.8	5.0
Tillicum	4.0		Tillicum	5.0	
Tyee	2.5		Tyee	4.7	5.0
Average Rating	2.9	3.4	Average Rating	3.5	4.3

The reading level of the materials is... (n = 72 – all teacher surveys)

UA 5	Response			
Pilot Program	Too easy	Appropriate	Too difficult	Totals
Discovering	3%	90%	8%	100%
Holt	12%	79%	9%	100%

Teacher Materials

Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

Teacher materials are accessible.

TM 1	Pilot Program	
School	Discovering	Holt
Bellevue	4.0	3.0
Chinook		5.0
Highland	5.0	2.0
Interlake	3.7	4.0
International	2.5	4.0
Newport	4.5	4.0
Odle	4.5	3.0
Robinswood	5.0	4.0
Sammamish	2.8	5.0
Tillicum	5.0	
Tyee	4.7	5.0
Average Rating	4.0	3.9

Teacher materials provide adequate background information about the lesson and/or the mathematics of the lesson.

TM 2	Pilot Program	
School	Discovering	Holt
Bellevue	4.3	4.0
Chinook		5.0
Highland	5.0	2.0
Interlake	3.0	3.8
International	3.0	2.0
Newport	4.4	3.4
Odle	4.5	3.0
Robinswood	5.0	3.3
Sammamish	3.0	5.0
Tillicum	4.0	
Tyee	5.0	5.0
Average Rating	4.1	3.7

Teacher materials contain lesson plans and suggestions for organizing and managing the classroom.

TM 3	Pilot Program	
School	Discovering	Holt
Bellevue	4.5	4.0
Chinook		4.0
Highland	5.0	2.0
Interlake	4.0	3.3
International	2.5	3.0
Newport	4.4	3.2
Odle	4.0	2.0
Robinswood	5.0	3.0
Sammamish	2.8	5.0
Tillicum	4.0	
Tyee	4.0	1.0
Average Rating	4.0	3.3

Teacher materials provide suggestions for differentiating instruction to meet the needs of different types of students.

TM 4	Pilot Program	
School	Discovering	Holt
Bellevue	3.3	2.5
Chinook		5.0
Highland	4.0	3.0
Interlake	2.7	3.7
International	2.0	3.0
Newport	3.5	2.6
Odle	3.0	2.0
Robinswood	5.0	2.7
Sammamish	2.3	5.0
Tillicum	3.0	
Tyee	3.7	2.0
Average Rating	3.1	3.2

Teacher Materials (continued)
 Fall 2009 Teacher Pilot Survey Data N= 54

Scale: 5 – excellent 3 – acceptable 1 – weak

The textbook, teacher materials and supplemental resources contain sufficient practice problems.

TM 5	Pilot Program	
	Discovering	Holt
School		
Bellevue	4.5	4.5
Chinook		5.0
Highland	4.0	5.0
Interlake	3.7	4.0
International	3.0	5.0
Newport	4.4	3.8
Odle	4.5	4.0
Robinswood	5.0	3.7
Sammamish	1.8	5.0
Tillicum	5.0	
Tyee	4.0	5.0
Average Rating	3.9	4.3

Teacher materials adequately explain or model any required manipulatives.

TM 13	Pilot Program	
	Discovering	Holt
School		
Bellevue	3.7	3.0
Chinook		3.0
Highland		1.0
Interlake	3.0	3.0
International	3.0	3.0
Newport	3.9	2.5
Odle	4.0	1.0
Robinswood	3.0	2.5
Sammamish	2.8	4.3
Tillicum	3.0	
Tyee	4.5	
Average Rating	3.5	2.8

Online materials were easy to access (n = 72 Spring & Fall Data)

TM 6	Pilot Program	
	Discovering	Holt
Yes	78%	68%
No	22%	32%
Total	100%	100%

Online materials are useful (n = 72 Spring & Fall Data)

TM 7	Pilot Program	
	Discovering	Holt
Often	52%	41%
Sometimes	37%	41%
Seldom	7%	7%
Never	4%	11%
Total	100%	100%

The quality of the investigations or explorations provided in the materials is...
 (N = 72 Spring & Fall Data)

TM 14						
Pilot Program	Excellent	Acceptable	Weak	Unacceptable	None Available	Total
Discovering	21%	54%	18%	5%	3%	100%
Holt	6%	39%	21%	24%	9%	100%