



Online WASL Math Preparation

Quizzes, Tutorials and Exams

Presenter: Kavita Jain, CEO and Founder

Agenda

- About Quizmine.Com
 - Vision
 - Goals
- WASL Math Education
 - Opportunity
 - Quizmine Model
- Building Solutions
 - 3 Phase Approach
 - Advantages and disadvantages of online math education
- Quizmine for Schools
- Call for action



Vision

*Build innovative online tools for teaching
Mathematics and drive student success in
State Standard Tests*



Goals

- Work with WA state teachers and ensure that 90% of WA students can pass WASL Math by 2009
 - Focus learning efforts on Math fundamentals
 - Enable teachers and students to track progress and compare results
 - Provide WASL math practice tests and build student confidence in WASL like questions



WASL Math Education Opportunity

Basic Math → Diagnose and fix

$$2 + 2 = 4$$

Students need a foundation in Arithmetic

- Need practice in addition, subtraction, multiplication and division

Teachers need tools to track student progress and help students to focus Math learning efforts

- Help students to focus on specific Math areas

Advanced Math → Focus on evangelism

Algorithms are at the heart of modern business world

- UPS → Find best route to deliver a package
- Google → Get the most relevant search result
- Amazon → Get recommendations for similar titles

Develop a burning desire in student to explore applied Math!

$$\frac{1}{0} = \infty$$



Quizmine Execution Model

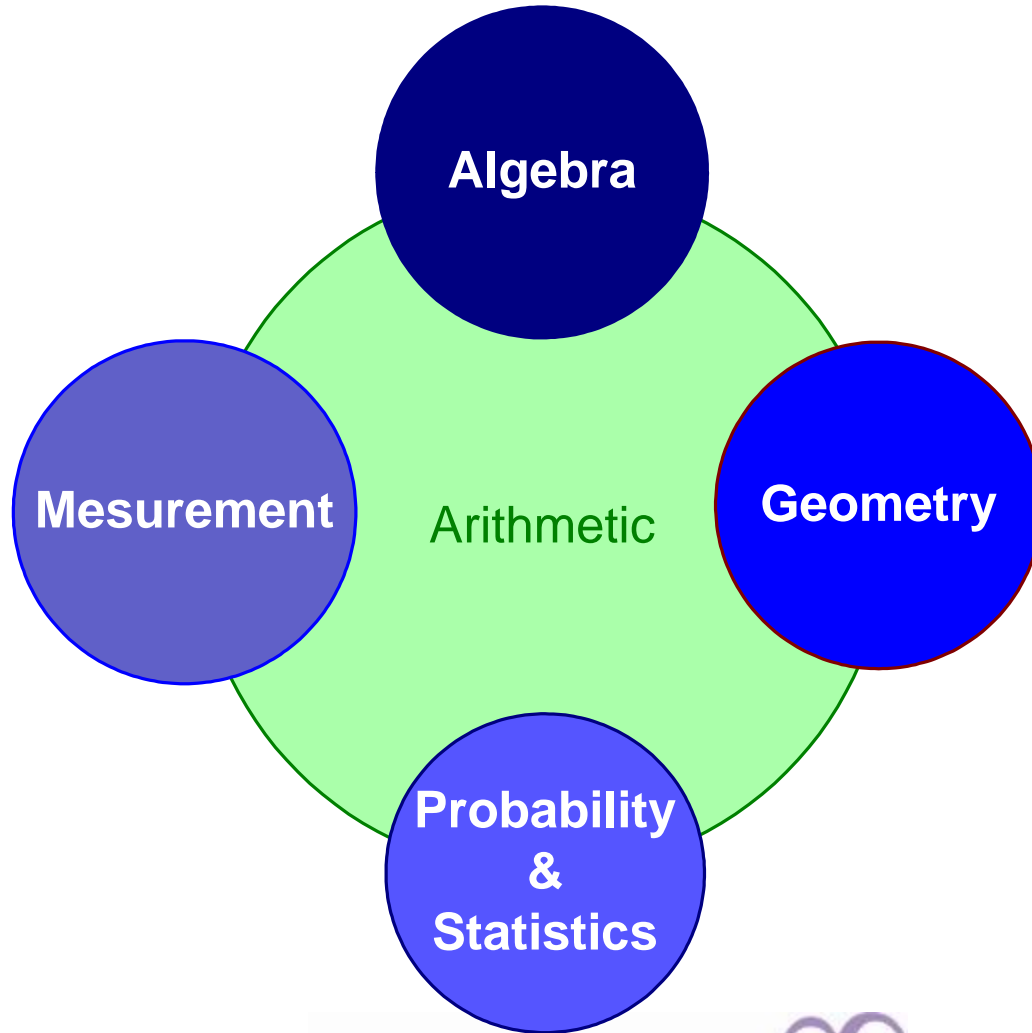
- Provide Online Quizzes, tutorials and Progress Reports
 - Any time, Any place, Any device access
- Focus on Math fundamentals
 - Arithmetic, Measurement, Geometry, Algebra, Probability and Statistics
- Enable performance driven discussion between teachers and students
 - Historical and relative performance analysis
 - “Replay” of how a student did on a particular question



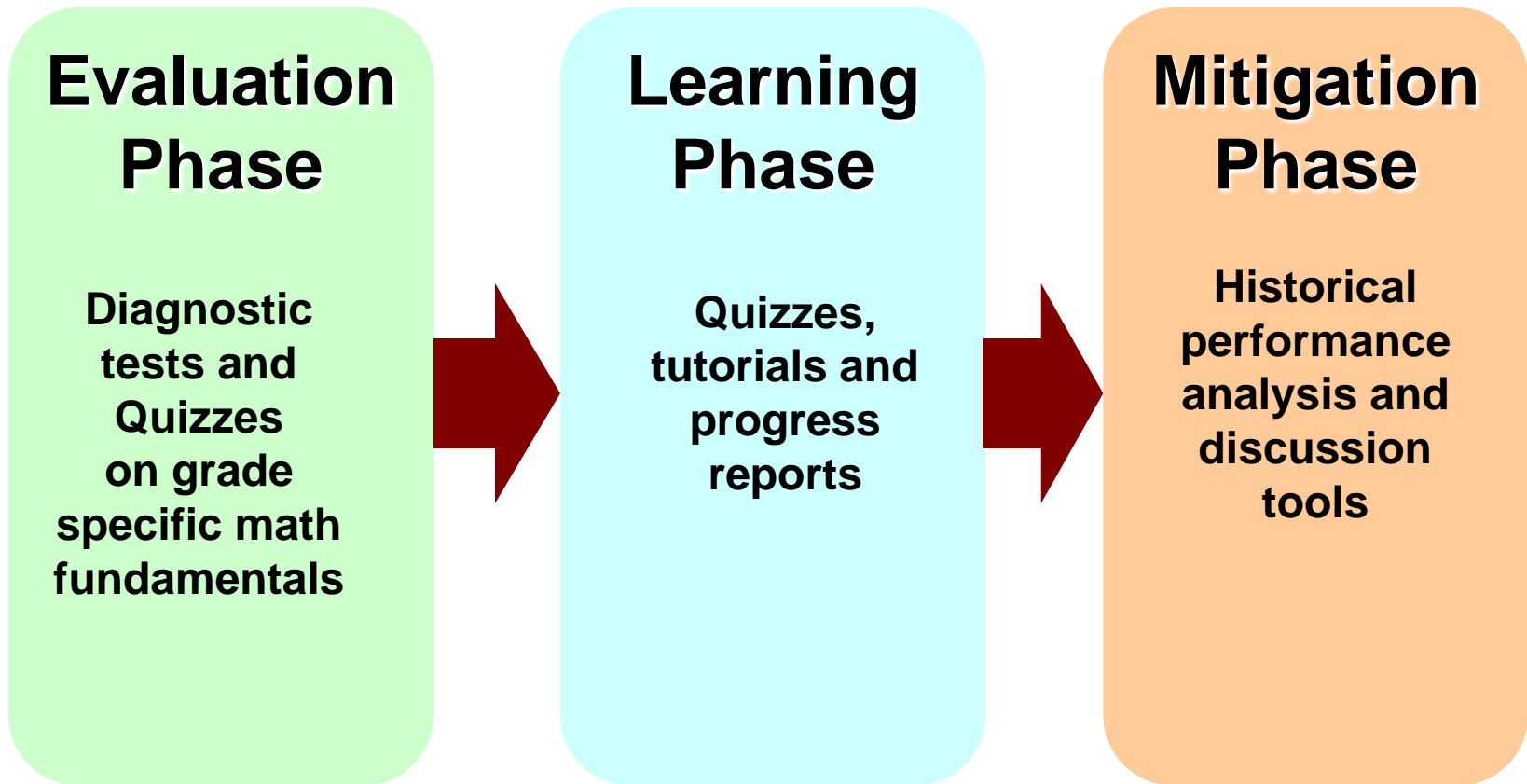
Building Solutions



Student Learning Model



Three Phase Approach



Key Quizmine Features

< Built on Web 2.0 technology >

- Evaluation tools
 - Diagnostic tests and Quizzes on math fundamentals
 - Previous year's WASL exam questions
- Learning tools
 - Tutorials and Quizzes
 - Detailed progress reports
- Mitigation tools
 - Detailed performance analysis tools
 - Discussion tools (Past answers and time taken to solve a problem are available for discussion)



Evaluation Phase



Evaluation: Start with Diagnostic Tests

Sabrina 's Progress Report > WASL-Math (Grade 10)

Quiz and Tutorials

Diagnostic Exams

Exams

[Collaps All](#)

	Subject	Category	Question Attempted	Correct#	Correct (%)	Grade
-	Fundamentals	All				
		Arithmetic (Numbers)	15	2	13%	F
		Measurement	0		%	
		Geometry	0		%	
		Algebra	0		%	
		Probability and Statistics	0		%	



Evaluation: Showing Progress Report (Math Fundamentals > Arithmetic)

Home > WASL-Math (Grade 10) > My Progress Report

Sabrina 's Progress Report > WASL-Math (Grade 10)

Quiz and Tutorials

Diagnostic Exams

Exams

[Collpase All](#)

Subject	Category	Question Attempted	Correct #	Correct %	Grade
- Fundamentals	All				
	- Arithmetic (Numbers)				
	↻ Numbers and Computation	10	9	90%	A
	↻ Fractions, Decimals & Percents	10	8	80%	B
	↻ Ratio & Proportion	10	4	40%	F
	↻ Scientific Notation	10	6	60%	D
	↻ Order of Operations and Arithmetic Properties	10	6	60%	D
	↻ Rounding, truncating and estimating	10	8	80%	B
	↻ Inequalities	10	3	30%	F
	↻ Exponents and roots	10	8	80%	B



Learning Phase



Learning: Tutorials

Tutorial on Addition and Multiplication rule and Conditional probability

[Show Tutorial in a full Window](#)

Addition and Multiplication rule and Conditional probability

Summary: This tutorial provides an overview of Addition and Multiplication rule and Conditional probability.

Contents

[General Rules](#)

[Addition Rule](#)

[Multiplication rule](#)

[Conditional probability](#)

1. General Rules [top](#)

Rule 1	The probability of any event occurring will always be a number from zero to one $0 \leq P(E) \leq 1$
Rule 2	When an event can not occur the probability will be ZERO
Rule 3	When an event is certain to occur the probability is ONE
Rule 4	The sum of all the probabilities of all the possible outcomes (in sample space) is ONE
Rule 5	The probability of an event happening added with event not happening is always 1 $P(\text{Event A happens}) + P(\text{Event A does not happen}) = 1$



Learning: Quizzes on Specific Area

Quiz	Tutorial
------	----------

Mark for Review << Prev Next >> Complete

Marks: For correct answer + 1 | For incorrect answer: 0

Q 1 Which of the probability formulae given below is applicable to determine probability of two events A or B, given that events are mutually exclusive.

A. <input checked="" type="radio"/>	$P(A \text{ or } B) = P(A \text{ happens}) + P(B \text{ Happens})$
B. <input type="radio"/>	$P(A \text{ or } B) = P(A \text{ happens}) + P(B \text{ Happens}) - P(A \text{ and } B)$
C. <input type="radio"/>	$P(A \text{ and } B \text{ both happens}) = P(A \text{ happens}) * P(B \text{ Happens})$
D. <input type="radio"/>	$P(A \text{ and } B \text{ both happens}) = P(A \text{ happens}) * P(B \text{ Happens given that } A \text{ has happened})$

Mark for Review << Prev Next >> Complete

Answer	Hint	Contact coach
--------	------	---------------

Right. Good Job!

Time Taken (in sec) 10

Answer: A. $P(A \text{ or } B) = P(A \text{ happens}) + P(B \text{ Happens})$

Detailed Solution: If A and B are mutually exclusive events
 $P(A \text{ or } B) = P(A \text{ happens}) + P(B \text{ Happens})$
Example: Toss of a Coin (Mutually Exclusive Event)

Go
[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[6](#)
[7](#)
[8](#)
[9](#)
[10](#)



Mitigation Phase



Mitigation: Progress Report

Quiz and Tutorials

Diagnostic Exams

Exams

[Collpase All](#)

Subject	Category	Question Attempted	Correct #	Correct %	Grade
- Fundamentals	All				
	- Arithmetic				
	⊞ Review of numbers	9	8	89%	A
	⊞ Ratio and Proportion	10	10	100%	AA
	⊞ Arithmetic Properties	10	9	90%	A
	⊞ Fractions, Decimals and Percents	9	9	100%	AA
	⊞ Computation (Addition, Subtraction)	10	10	100%	AA
	⊞ Computation (Multiplication, Division)	10	9	90%	A
	⊞ Estimation	10	5	50%	E
	⊞ Compare and order numbers	10	7	70%	C
	⊞ Roots and Exponents	1	1	100%	AA



Mitigation: Drill into quiz performance (Discuss how student did on right answers)

Marks: For correct answer + 1 | For incorrect answer: 0

Q 1 If Sam runs 5 km in 30 minutes, how many hours will it take him to run 1 km?

- A. 2 Hours
- B. 1 Hour
- C. 0.1 Hour
- D. 1/30 Hour

Mark for Review

<< Prev

Next >>

Complete

Answer

Hint

Contact coach

Right. Good Job!

Time Taken (in sec) 20

Answer: C. 0.1 Hour

Detailed Solution:

5 km in 30 minutes

$$\text{Speed} = \frac{5 \text{ km}}{30 \text{ min}} = \frac{10 \text{ km}}{60 \text{ min}} = 10 \text{ km/hr}$$

So to run 1 kilometer he will take 1/10 or 0.1 hour

Problem Solving Strategy: Read the problem carefully

2
3
4
5
6
7
8
9
10



Mitigation: Drill into quiz performance (Discuss how student did on wrong answers)

Q 2 The ratio of defective parts to total parts manufactured in a plant is 1 / 5.
If 700 parts are made today then how many parts do you expect to be defective?

- A. 120
B. 100
C. 50
D. 140

Mark for Review << Prev Next >> Complete

Answer	Hint	Contact coach
Incorrect! Please review tutorial		
		Time Taken (in min) 2.32
Answer: D. 140		
Detailed Solution: Ratio of defective to total parts can be given as per below: $ratio = \frac{1}{5} = \frac{x}{700}$ or $5x = 700$ $x = 140$		

4
5
6
7
8
9
10



Online Education

- PRO
 - Computer adaptive learning
 - Instant feedback with progress reports
 - Historical performance tracking and relative comparison
- CONs
 - Not a replacement for teacher-student interaction
 - Not suitable for some students
 - Descriptive questions are difficult to track and grade



Quizmine for Schools

- Customized site for Schools
 - School specific site
 - Reports for teachers and administrators
 - Relative comparison reports with other schools, school district and State
- Full power to teachers
 - Customize quizzes and tutorials
 - Customize learning plan
- **\$1999** for each School
 - All Grades, Unlimited Students



Call for Action

- Visit Quizmine.Com and create an account
 - Explore Quizmine quizzes, tutorials and exams
- Work with Quizmine team to create a custom learning plan for your school
 - Focus on school specific needs
 - Customize product and content
 - Launch and measure progress
- Enable 90% of WA state students to pass WASL math by 2009



Thank You

info@quizmine.com

