

# Blended Learning: What You Need to Know

A Look at Inclusion Practices Using Technology



**Suzanne Saraya**  
*ExploreLearning*

[Suzanne.Saraya@ExploreLearning.com](mailto:Suzanne.Saraya@ExploreLearning.com)

# Agenda

- What is Blended Learning
- Benefits and Challenges
- The Who and How of Blended Learning
- Examples with Gizmos
- Learning Theory



# BLENDED LEARNING: What Is It?



# How do you define “Blended Learning”

**Blended learning** is an education program (formal or non-formal) that combines online digital media with traditional classroom methods.

It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or pace.

While students still attend "brick-and-mortar" schools with a teacher present, face-to-face classroom practices are combined with [computer-mediated activities](#) regarding content and delivery.

# What Blended Learning is...and is not

## It is...

- ... a combination of in person and online learning. (it has to have both)
- ...an opportunity to open up space and time.
- ...a means of deepening and personalizing learning.
- ...organized by models of practice.
- ...a large area of interest for SMEs and large corporations looking at professional learning, not just schools.

## It is not...

- ...clearly defined in the ways or percentages of time spent online and in person.
- ...for everyone.

# BLENDED LEARNING: Benefits and Challenges



# What opportunities does it offer?

- Personalization – The locus of control over learning pace, content, activities, etc. by the learner -> deeper learning impact
- Increased quantities of learners
- Less reliance on space and time
- Greater flexibility of content and activities
- Greater control and replicability
- Customization and bespoke systems (make systems work for you)
- Data – reporting, informed decision making, metrics on impact

# LEARNING BENEFITS OF BLENDED COURSES



Strategic planning allows the teacher to give more time for discussions and high-order thinking activities during face-to-face interaction.

Online tools enable the teachers to personalize instruction for handling different paces/styles of learning.



Multiple communication platforms give students more interaction opportunities with the teacher and other students.

Collaborative learning is enhanced by allowing students to exchange and contribute resources in the online environment.



Learning becomes more interesting and mobile through the internet and multiple delivery platforms. This helps in gaining the attention of 21st century learners.



# BLENDED LEARNING IN SUMMARY

## BENEFITS

- Supports learning transfer into the workplace
- Reduces time away from the workplace
- Encourage staff self-governance and learning self-management
- Agile, responsive
- Aligns with how people learn informally, accidentally
- Leverage existing available resources/ platforms
- Synergies with marketing, knowledge management, recruitment/retention

## CHALLENGES

- New skills required of staff & trainers
- Instructional design continues to evolve
  - simple, succinct, easy to digest
  - artefacts and platform design
- Sustaining the blend; managing redundancy of content & technology
- We need to better understand employee workflow and motivation
- We have a deeper reliance on managers as coach
- Communication & change management is key
- We must create an imperative to use/do it or the tools will not be used

# **Top 10 Challenges of Blended Learning**

**(Hofmann, 2010)**

## **Technical challenges**

1. Ensuring participants can successfully use the technology.
2. Resisting the urge to use technology simply because it is available.

## **Organizational challenges**

3. Overcoming the idea that blended learning is not as effective as traditional classroom training.
4. Redefining the role of the facilitator.
5. Managing and monitoring participant progress.

## **Instructional design challenges**

6. Looking at how to teach, not just what to teach.
7. Matching the best delivery medium to the performance objective.
8. Keeping online offerings interactive rather than just “talking at” participants.
9. Ensuring participant commitment and follow through with “non-live” elements



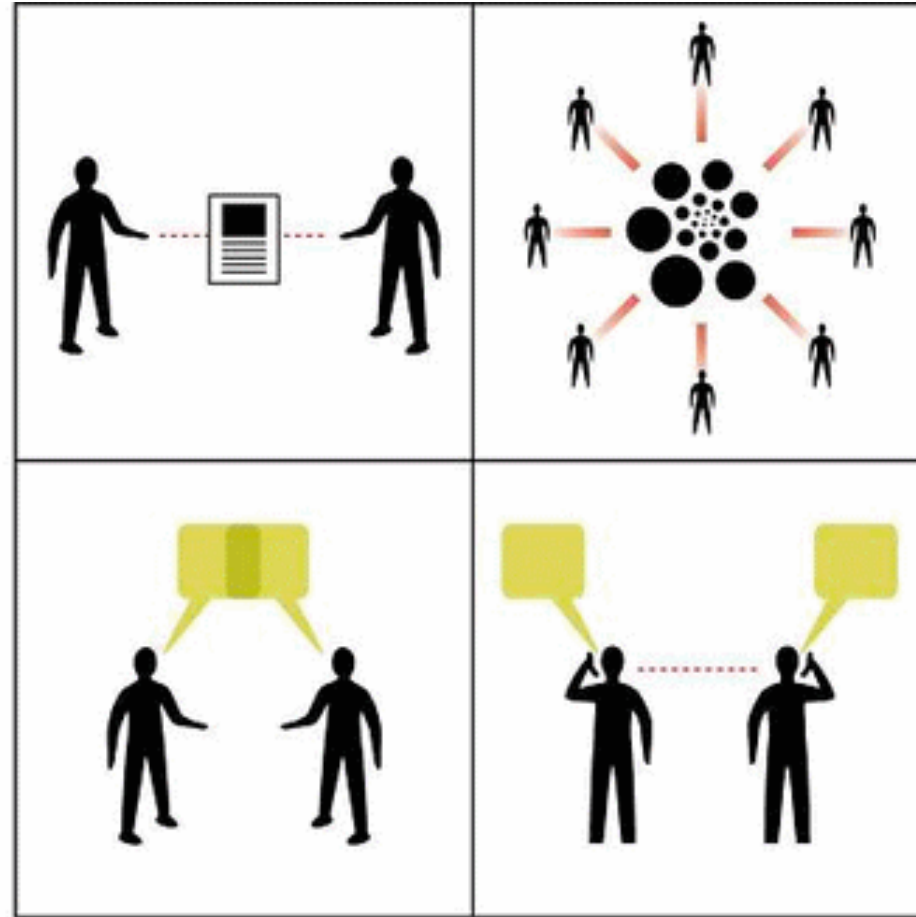
10. Ensuring all the elements of the blend are coordinated.

# BLENDED LEARNING: Who and How



# Synchronous vs. Asynchronous & Space vs. Time

Different Time  
(asynchronous)



Same Time  
(synchronous)

Same Place  
(in person)

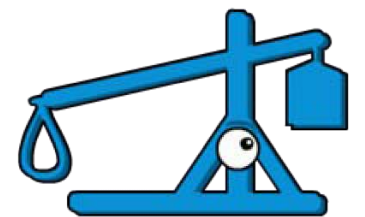
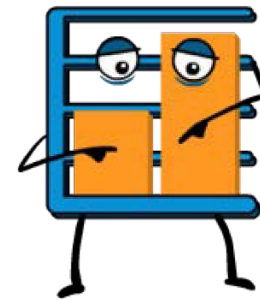
Different Place  
(online)

# How much time live vs. online

**Solve questions in  
Time and Work based on Proportion:  
Direct Proportion:  
a is to b is same as c is to d  
 $a : b = c : d$   
Inverse Proportion:  
a is to b is inverse of c is to d:  
 $a : b = d : c$**

ExploreLearning designed a program that helps students develop critical thinking and problem solving skills and that increases science and math literacy to enable the next generation of innovators:

# GIZMOS

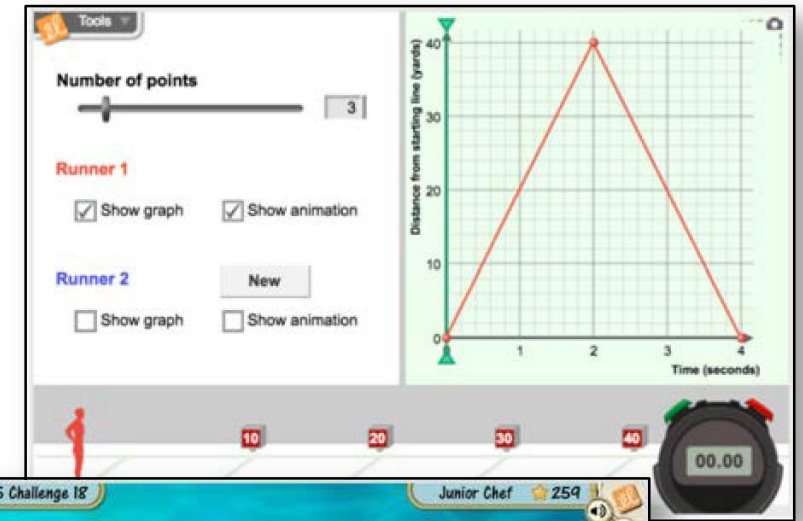




# Gizmos are ...

- Interactive online simulations
- For Mathematics and/or Science content and skills/processes
- For students in grades 3-12
- An engaging way to learn and build lasting knowledge

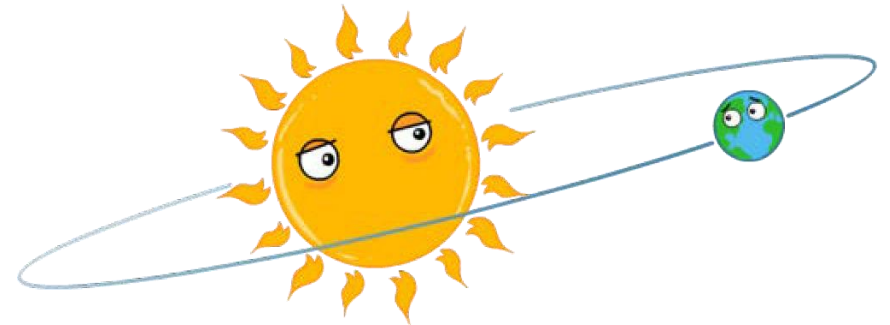
... And there are over 475 to choose from!



The screenshot shows a Gizmo interface for an algebra challenge. At the top, it says 'Level 5 Challenge 18' and 'Junior Chef 259'. The main area displays an 'Expression Recipe' with the expression  $\frac{1}{9} \cdot n + -13$ . Below this, a larger expression  $\frac{1}{9} \cdot n + 3 + -16$  is shown on a wooden board. Below the board are buttons for 'Add', 'Associate and Add', 'Associate', and 'Commute'. At the bottom, it says 'Moves: 4' with a refresh icon.

# Why Gizmos?

- Designed for Inquiry and Interactivity
- Manipulate key variables
- Test hypotheses
- Explore “what if...” questions
- Practice skills





Gizmos have been successfully implemented in hundreds of special education classrooms to empower students with the skills and the concepts needed to master increasingly rigorous content.

- ❑ Students work at their own pace, allowing students to repeat manipulations until they have mastered the concepts, including from home.
- ❑ participate in inclusion classrooms. Teacher resources provide teachers various levels at which to engage all students in an inclusion classroom, easily enabling modifications for students with special needs.

Gizmos can be assigned to individual students and completed independently. For gifted learners, additional Gizmos can be assigned to expand and extend learning and provide challenge.

- ❑ A large number of lesson material include optional “Challenge” questions and extension activities targeted toward gifted learners. Additional discussion questions and follow-up activities are described in the Teacher Guides.
- ❑ Gizmos allow students to discover concepts on their own rather than memorize and recall formulas. This type of learning is stimulating for all students and especially appropriate for students that seek out challenges and love to make their own discoveries. Gizmos enable students to have limitless exploration of math and science content to help enrich and challenge students performing at even the highest levels.

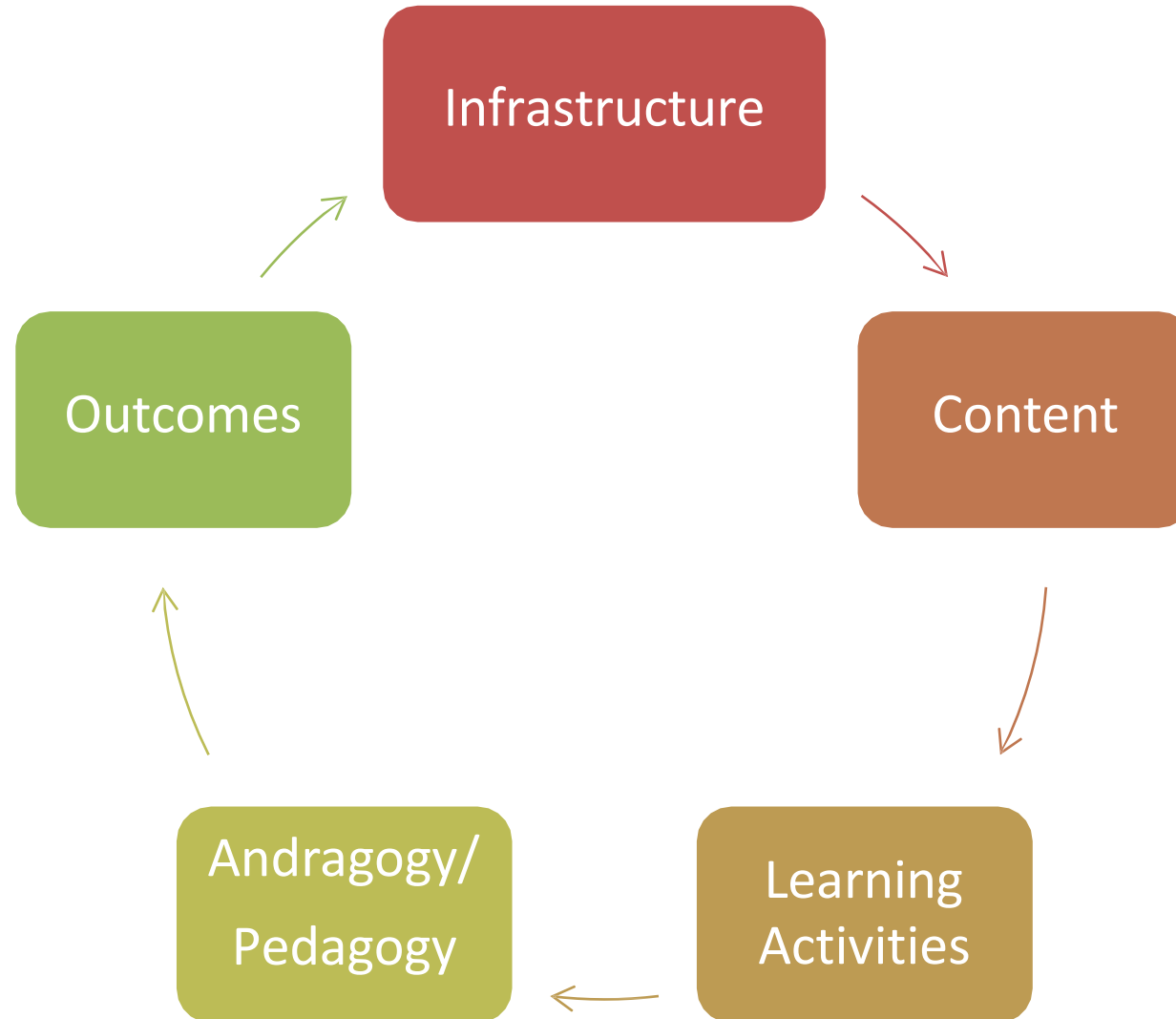
Gizmos use and reinforce the technical language of math and science which is embedded in each lesson and supports English language learners:

- ❑ Visual and experiential support connects to students' background and prior knowledge
- ❑ Varied activity levels scaffold and differentiate learning: provide students the opportunity to engage in inquiry to learn content using multiple modes of representation (e.g. discussions, pictures, models, writing, graphs, etc.)
- ❑ Connects concepts and vocabulary to real-world experiences providing a bridge to learning between languages.

# BLENDED LEARNING: Learning Theory



# Variables to Consider in Blended Learning



## The Defining Dimensions of Blended Learning Models




© Keeping Pace with K-12 Online Learning, 2010, [www.kpk12.com](http://www.kpk12.com) Source: Michigan Virtual University®


# Some Blended Learning Methods & Models

- Flipped Classroom
- The rotation model
- Project-based
- Enriched-virtual model
- Flex

## Traditional Classroom




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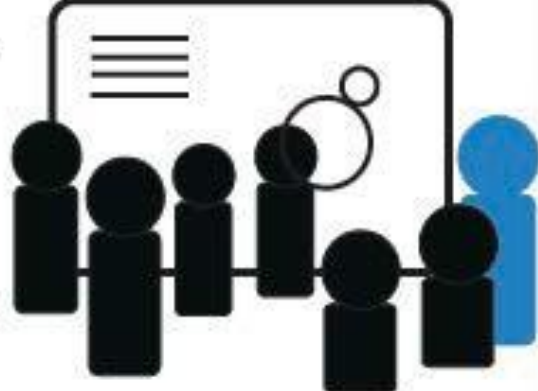


- Instructor prepares material to be delivered in class.
- Students listen to lectures and other guided instruction in class and take notes.
- Homework is assigned to demonstrate understanding.

## Flipped Classroom



- Instructor records and shares lectures outside of class.
- Students watch / listen to lectures before coming to class.
- Class time is devoted to applied learning activities and more higher-order thinking tasks.
- Students receive support from instructor and peers as needed





# How is Flipped Learning Inclusive?

- Differentiated materials
- Individualized learning
- Personalized in-class support
- Modifiable instructional
- Learner centric
- Self paced

## Flipped classroom

The **flipped classroom** intentionally **shifts instruction to a learner-centered model** in which class time **explores** topics in greater depth and **creates** meaningful learning opportunities, while **educational technologies** such as online videos **are used** to deliver content outside of the classroom.

In a **flipped classroom**, **content delivery** may take a variety of forms: often **video lessons** (prepared by the teacher or third parties) are used to deliver content, although **online collaborative discussions**, **digital research**, and **text readings** may be used.

How can I do Blended Learning now ?

# GIZMOS IN ONTARIO

- **Teachers/Students in Grades 7 and up in all public schools have access to Gizmos under a Ministry of Education license**
- **Teachers in other grades, members of STAO, will be provided with access until Sept. 2020**

Contact us at: [Ontario@explorellearning.com](mailto:Ontario@explorellearning.com)

<http://pdbname.explorellearning.com/Ontario>

# Contact Information

Suzanne Saraya

[Suzanne.saraya@explorellearning.com](mailto:Suzanne.saraya@explorellearning.com)



# Thank you!

