



05-06 Targeted Populations Experiment

Hillsboro High School

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HilHi Tech Ed Experiment

- We desired to study the involvement of Latinos and girls in our technology and pre-engineering electives of Robotics, Electronics, Drafting and Architecture.
- We wanted to examine our ELL (English Language Learner) assistant impact and look for potential modifications.



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Hillsboro High School

Background

- 36% Free and reduced lunch
- 25% Latino
- 46% of the 25% Latino population qualifies for ELL services (more than 1 out of every 10 HilHi students)
- Low success rates in technology classes for ELL students



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Goals

- Identify keys to success for targeted populations of Latinos and girls.
- Identify specific ways that ELL Assistants and Teachers could work more collaboratively.
- Increase the quantity of Latinos and girls in technology and pre-engineering classes.



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Success Story

- Spring trimester Robotics class:
 - 32 students
 - 44% Latino
 - 22% ELL (7 students)
 - Performance based grading system
 - 93% A and B at the midterm
 - 81% A and B at the end of the term
 - The top three grades were earned by ELL students



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How did we get there?

Student Components of the Robotics Experiment:

- Miss Rivera identified specific students who expressed interest in joining tech classes.
- We invited those students to join the class and worked with scheduling to facilitate their interest.
- Data analysis was performed to review prior term transcripts, many of the targeted populations exhibited opportunity for improvement.
- Students were asked to make a commitment to improve their grades in all of their courses if they were allowed to join the Robotics class.
- The Robotics class has a student perception of being fun due partially to the extensive use of LEGO and a large amount of hands on activities.



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What can be duplicated?

- Teacher and an ELL Assistant in the classroom:
 - Must have time to do common planning.
 - The first time an Assistant is assigned to a class the Assistant works with a student team (almost as a class member) and completes all major assignments and tests just like the students.
 - Confidence building is critical, the Assistant should become as successful with the material as a student who completes the class.



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What can be duplicated?

- The Assistant is empowered and elevated into more of a partner in the learning environment.
- The Assistant is in the class the entire period, just like the students and teacher.
- Translate concepts, not just words.
- Both adults are facilitators of learning.
- Discussion between Assistant and Teacher must occur to develop a common pedagogy in how the Instructor and Assistant interact with the students. For example:
 - » Questioning strategies
 - » Not hovering over students
 - » Consistency in expectations



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Teacher - Assistant Environment

- The Assistant needs some work space within the classroom to be organized for the class, to keep notes, assist individual students, and to prepare materials.
- The Teacher and Assistant collaborate on
 - » Seating charts and members of teams
 - » Assignment complexity and approach
 - » Observations and feedback from students because the Assistant is often in a position to mediate and facilitate communication.
- The ideal scenario is empowerment of a team approach to the classroom environment.



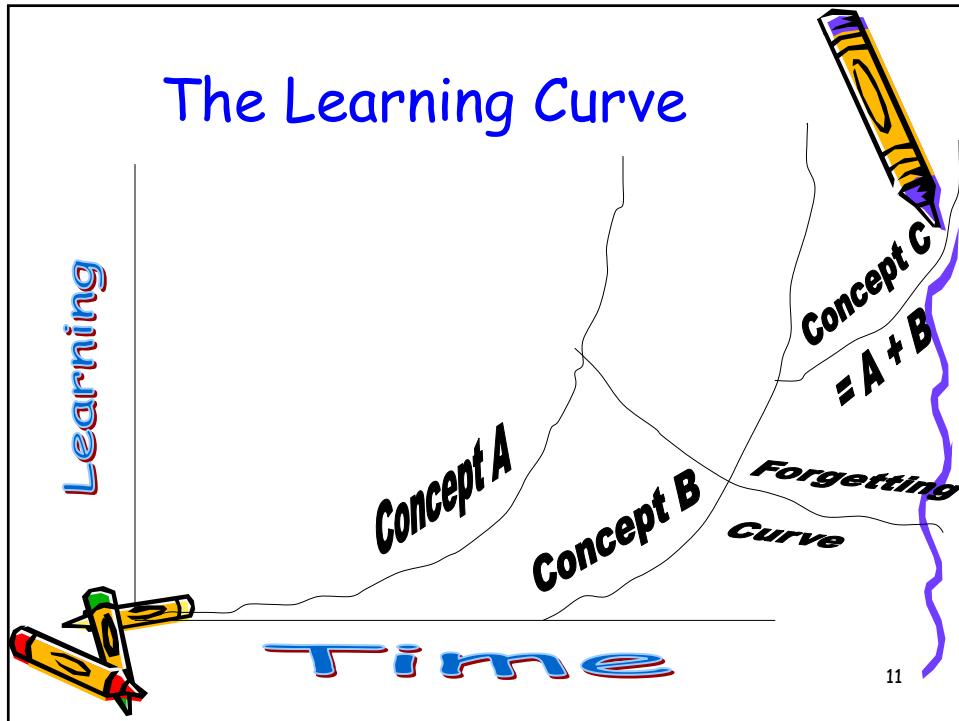
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Critical Essentials

- Common planning time
- Involvement in and mastery of the class
- Common approach with students
- Full period participation
- Translate concepts not words
- Work space so they can be organized
- Assistant involvement in decision making



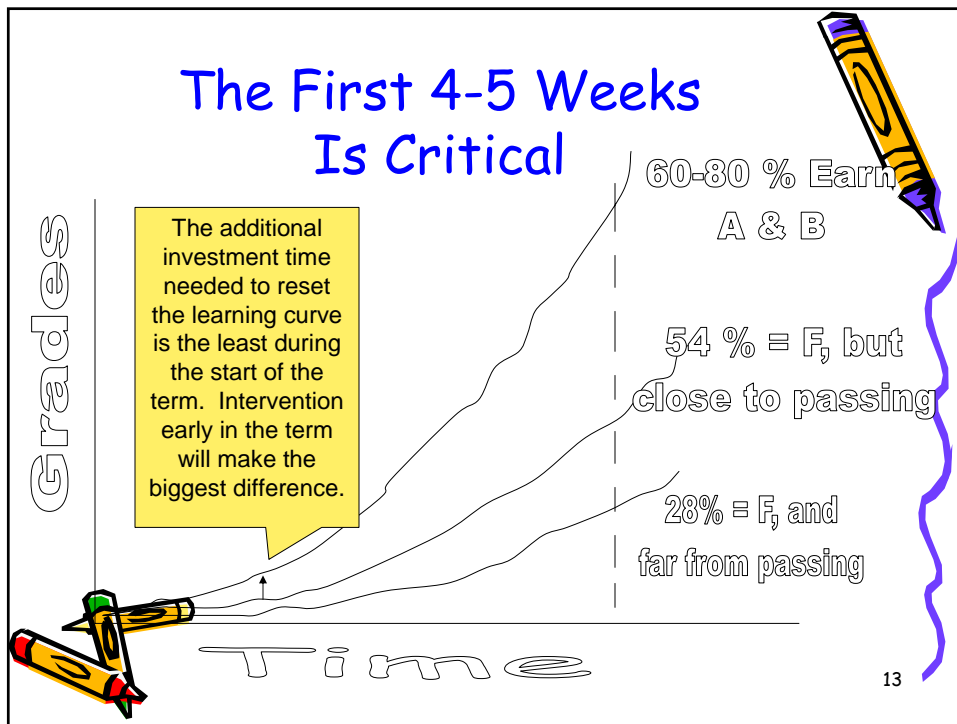
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Thoughts on the Learning Curve Slide

- It is important to over teach concepts A and B because they are building blocks for syntheses and developing understanding.
- This slide illustrates the critical importance of the start of the course.

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- ## Collaboration to reset the Curve
- Early in the course
 - Build relationships with students
 - Communicate with parents
 - Follow up on poor attendance
 - Target student understanding of key building block concepts
 - Discuss seating arrangements/teams to maximize student peer support
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Additional Impact

- Students love to succeed and tell each other about it. Success builds success in other areas and makes success cool.
- When students talk about their success it gives other teachers and students opportunities to encourage them.
- Successful collaboration in one classroom can provide a discussion and observation opportunity for others that are interested in that approach.



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Additional Opportunities to Build Success

- After school help sessions offered in collaboration with the Assistant.
- Assistant helps create, collect, display and organize pictures, video, and/or awards to celebrate successes.
- Students enter a competition, challenge, fair or contest and the Assistant is part of the coaching team.



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The Experiment Continues in 06-07

- Grant funds have been raised to extend the Assistant work day from 6.5 hours to 8 hours for:
 - Common planning and discussion
 - After school help sessions for ELL students
 - Assistant creation of materials
 - Translation and creating video/audio tutorials
 - Documentation of student progress
 - Career guidance and meeting senior portfolio requirements



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Questions and Discussion Time

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