



Merging Leveled Classes in High School Science

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MONTCLAIR HIGH SCHOOL

About Us

- ▶ Joyce Weeg:

26 years teaching

Taught the following biology sections:

AP, Honors, Basic biology for repeating students, Academic (with + without ICS)

- ▶ Owen Ambrose

12 years teaching

Taught the following biology sections:

Resource, Academic in class support, Honors in class support

Cause For Change

- ▶ Clear disparity in representation of racial blend in honors and academic sections
- ▶ Gap in opportunities for students whose IEP requires support
- ▶ Overall approach for teaching Honors was antiquated, did not embrace NGSS principles
- ▶ Placement method was ambiguous

Further Investigation

- ▶ Research on leveled classes often supported merged models.
- ▶ Leveled system seemed to counteract district initiative of shrinking achievement gap between racial groups.
- ▶ Over 70% of students in Academic settings were students of color, whereas less than 30% were white students.
- ▶ Teachers from 8th grade communicated that the majority of course recommendations were based on parental requests or lack thereof.

Broadcasting Our Message

- ▶ The merged classroom suggestion was met with disapproval by Honors biology teachers but supported by Academic biology teachers.
- ▶ Those against the idea were concerned that students who were not “honors material” could not grow to become such.
- ▶ We proposed that in order to help all students grow, we had to adopt an instructional approach that better enabled students to show their skill sets.

Our Proposal

- ▶ Remove Academic biology from course offerings
- ▶ Make all non-replacement sections “Honors Biology”
- ▶ Restructure curriculum/delivery style towards focus on higher scientific practice and higher differentiation potential
- ▶ Restructure Universal assessments (Midterm and Final Exam) towards higher focus on assessing scientific literacy

Approval and Implementation

Implementation of merged honors biology began in Fall 2016

- ▶ Upon having our proposal approved we:
 - Rewrote honors biology curriculum to align with NGSS.
 - Created a resource base for all 9th grade bio teachers.
- ▶ Our primary focus was tracking student growth in scientific practices throughout the year
- ▶ Common planning meetings were critical towards implementation by all teachers

Positive Outcomes

- ▶ Positive parent/student feedback
- ▶ Clear student growth (in confidence and performance)
- ▶ Extremely low % of student failure
- ▶ No students miss out on Honors level credit just for needing ICS.
- ▶ Racial/Ethnic groups are evenly represented in all classes.

Challenges Ahead

- ▶ Most grade 10 (Geoscience) teachers are against merging
- ▶ 10th grade science does not follow NGSS aligned curriculum
- ▶ Not all biology classes are supported (some challenged students receive less help than others.)
- ▶ Some teachers are showing tendency to lower challenge of honors level rather than restructure teaching practice.
- ▶ Differentiation sometimes requires extremely wide range of target skill sets.

Thank you