

The note that started it all...

© 2016 David Kristofferson: <http://www.kristutoring.com>

This series of articles about education issues started with a specific local problem below, but quickly grew into a series detailing common problems with today's education system.

Last year (2015) Aragon High School in San Mateo, CA previewed a precalculus textbook published by College Preparatory Mathematics (CPM) to comply with Common Core requirements. I was tutoring several precalculus students at that time and immediately started observing significant comprehension and knowledge retention problems among even my best students. After several exchanges of emails with Aragon staff and face-to-face meetings, I finally felt compelled to take public action which led to this series of articles in early 2015 on the Nextdoor.com social network.

Because I received requests to access these articles from many people outside the nearby neighborhoods, and because Nextdoor severely limits my neighborhood's ability to communicate with other neighborhoods that attend the same high school, I decided to create an archive of these articles on my website. This archive only includes my writing and unfortunately does NOT include the extensive discussion that developed on Nextdoor.

I am happy to say that at the end of the 2015-2016 school year, Aragon discontinued the use of the CPM precalculus textbook.

Important note to Aragon parents regarding the precalculus curriculum

David Kristofferson from The Highlands · 28 Jan 2016

I tutor about 20 students in math, physics and chemistry, the vast majority from Aragon High School, and have been doing this work as a semi-retirement hobby for the last four years. (Note - my schedule is currently full, I have people wait-listed, and am not soliciting for new clients).

The precalculus class at Aragon has always been an extremely challenging class. I have received emails from parents over the last four years saying "My child always received A's in math until he/she took precalculus and now they are getting a C (or worse)." In years past I was very often able to help resolve this problem, but this year, ostensibly due to Common Core requirements (even though Common Core is only a list of topics and does NOT recommend textbooks), the Aragon math department adopted a new textbook in the CPM series which does not explain topics to students nor provide them with worked examples, but instead uses a series of guided questions to allow them to "discover" the concepts for themselves.

Not only does this self-discovery process take longer than traditional instruction, a side effect is that

the students tend to get less time to practice what they have learned due to the usual frantic need to "cover the material." Earlier this school year I provided the math department with a research article from an educational journal published by the AFT, a teachers union, which reviews many research studies that have repeatedly shown that self-discovery is an inferior method of teaching (http://www.aft.org/sites/default/files/periodicals/ae_spring2012.pdf). I met with the principal, Mrs. Kurtz, and then later with several administrators and math department co-chairs to discuss this issue, but the math department did not want to change course. The general response was that "they are professionals and know what they are doing." Meanwhile, I see kids continuing to suffer, but my protests have been set aside as only "anecdotal evidence" and the research article that I sent them was never acknowledged or discussed.

Yesterday, I received three more calls for help (two about math and two about chemistry - one overlapped for both subjects) which unfortunately I can not immediately act upon. Therefore I decided to send this note out to the NextDoor neighborhoods that I can reach (unfortunately as I noted on NextDoor several days ago, the Nearby Neighborhood configuration for the Highlands needs improvement).

I would be interested in hearing parents' experiences with the Aragon precalculus program, especially from those who have children in it this year, and would appreciate it if you would respond publicly. (Note added after the original post - if you would like to reply privately that is OK too. Also, if you are happy with the precalculus program this year I would like to hear that news too.)

Aragon also provides a class that combines Algebra 3/4 with precalculus as a response to parents who want to accelerate their kids. I spoke about this last year at a district math curriculum meeting held at Highlands Elementary, and have a grave reservation about this program as well, but that is a topic for another time.

Thanks in advance for your help! I would really like to see NextDoor live up to its potential to effect positive change in a community. While it is great that it is often used to save discarded items from the landfill, it could be so much more...

Sincerely,

David Kristofferson, Ph.D.
Kristofferson Tutoring
<http://www.kristutoring.com>