



Math Studies Networking Session Central High School December 15, 2016

Session Agenda:

The topics folks would like to discuss fall into two main categories: the IA and course design (see detailed notes below). I have set up a dropbox folder that can serve as a repository for our common knowledge, so if you developed have a syllabus that you find works well, please upload it to the course design folder.

the IA: time management, timeline, grading and amount of assistance (tips for grading and helping students along the way, i.e. collecting research, citation of sources and actually conducting the math needed)
and how to how to check student data for IAs using excel
should students specify which simple & further processes they are using?

What constitutes a simple/further process? – *There is a document listing relevant statistical processes, classified as simple/further, which I share with my students.*

course design: content taught across multiple years; pacing and sequencing of the course. There is a lot of material and it is very varied – how do teachers think about presenting this material in a logical and efficient manner?
new to this subject. It the first year of IB for my school...
differentiating instruction with students of different math backgrounds

the new IB curriculum coming that eliminates IB Math Studies from the course offerings – *I have included the four curriculum review reports in their entirety as well as a two-page highlight reel in the dropbox folder.*

Session Minutes/Discussion Notes

The IA: our biggest problems with the IA fall into four categories—

1. students don't take it seriously
2. students want to change topic in the middle of the process
3. students don't see the value of the IA
4. the rubric isn't followed/applied correctly

We used posters to record problems and propose solutions within each category, then debriefed each in turn. The highlights were: attach grades to intermediate checkpoints, have students conduct peer review before the first draft with a template to make sure it's productive, have students present their findings to the class after the first draft (and give students in the audience a structured feedback form). We also talked about encouraging use of the writing center to assist students who are not used to writing about their mathematical process, making connections to science and social studies course content (for applications of statistical techniques), and how to find reliable online datasets. Time permitting, having students work in small groups or as a whole class to develop a model IA with teacher guidance before they begin their individual IA enables teachers to give more explicit direction and feedback than we are allowed on the IA that is submitted to IB.

Course design: we broke into two groups, depending on whether the course is taught over one year or two, and tried to develop an ideal schedule for covering all of the topics in the syllabus. Because everyone's teaching situation is so different, it was difficult to come to an agreement. Instead, folks shared their course plans then discussed what works and what doesn't.

Curriculum changes:

There will be a common core to the SL component and to the HL component. The following table illustrates the proposed model though the actual hours are not finalised at present:

Group 5 Curriculum model		
1	Mathematics skills and concepts/IA/Group project 30 hours	
2	Core mathematics SL 60 hours	
3	Mathematics SL 60 hours	Applications Mathematics SL 60 hours
4	Core mathematics HL 20 hours	
5	Mathematics HL 70 hours	Applications mathematics HL 70 hours

We talked through the implications for Math Studies—it looks like the Applications Mathematics SL course would be a natural fit given how concrete the current list of topics is (e.g. finance, modeling, statistics) but if Math Studies are our weaker students, it might make more sense to follow the non-applications route since it will probably be more in line with the kind of mathematics they have already been learning. We will have to see what ends up in the final course guides, and will want to reconvene once that is published to work on a transition plan.