UNPACKING YOUR HSC DATA ANALYSIS

SUPPORT MODULES

- As outlined in *Key Links for the HSC Data Analysis*, there is a Tutorial of 17 online modules which support the Analysis. Go to https://www.csnsw.catholic.edu.au/ > NetID > HSC Data Analysis Recipients > TUTORIAL (on the LH panel). On the first occasion you access the tutorial, you will need to provide registration information. The module/s which address the questions below are highlighted in red.

COURSE-LEVEL INFORMATION

- Most of the information at course level is held in the Trend Graphs. However, you have to know what these are saying in terms of the Primary and Secondary KLA report to be able to use Trend Graphs. So always start at the KLA reports until you are very confident of your ability to relate these to Trend Graphs.
- **Primary Analysis:** ***Module 2***
    - Go to the Analysis portal, click on "KLA Primary & Secondary Reports" and select a KLA of interest. Click "Retrieve".
    - What's the key concept being presented here? ***Module 1***
    - Where is the centre of the ellipse? What does this tell us?
    - Does the ellipse cross the *Achieved=Typical* line?
    - What are the 3 factors that affect the size and shape of the ellipse?
        - Is there any educational information in these 3 factors?
    - How do you interpret left-to-right movement of an ellipse on this graph?
    - What do you do if you can't see one course buried under another course's ellipse?
- **Secondary Analysis:** ***Module 3***
    - How much do NAPLAN results influence this graph?
    - What does up/down movement on this graph relate to?
        - Is it conceptually possible to have all of the school's courses above the line?
    - What does left/right movement on this graph relate to?
        - Is it conceptually possible to have all of the school's courses to the right of the line?
        - Are there some courses which seem to be habitually to the right of the line in most schools?
            - Why do you think this is?
- **Course Trends graphs:** ***Modules 5, 6 & 7***
    - Choose a course of interest, and get its Trends Graph from the portal.
    - Which two graphs on this report relate to the Primary Analysis (Comparative Learning Gain, CLG)?
    - Which two graphs on this report relate to the Secondary Analysis?
    - Remember that Graph #3 on individual Trends graphs is vastly different to Graph #3 on the Overall School Result
    - What do the 'whiskers' on the data points relate to?
        - How do they relate to the ellipse ('fuzzy blob') in the Primary Analysis?
    - Is pedagogy driving outcomes in this course?
        - How can you tell?
    - Check out the numbers at the top of the page – *TotNos* (everyone doing the course, providing the data for Graphs #1 and #3, which are the *Secondary Analysis*) and *NoIncl* (Number included in the primary analysis, for whom we had NAPLAN data, which gives the data in Graph #2, and in Graph #4, which is the *Primary Analysis*).
        - Is there a story here?
        - How does Graph #2 compare with Graph #4? – Think the "Results Equation"…
    - Is there a connection between the +H/+L pattern and the CLG (Graph #4)? ***Module 4***
- **Scatterplot Students (Achieved vs Typical)** ***Modules 8 & 9***
    - What other graph is this just a break-down of?
        - Often, this is the graph that most gets teachers' attention: putting faces on the data
    - Has someone gone into the *Edit classes and factors* tab to split big courses down to their constituent classes?
        - When you've done that, what does the *Class Mean Diff* value at the top of each class's scatterplot tell you?
    - Why doesn't this graph show confidence limits around each student's marker?
        - Don't over-interpret the scatterplot
    - What's the story with the outlier students?
        - Is there a pattern here?
    - What can we learn from these students' performances to help better pedagogy with the next group?
- **Scatterplot Students (Diff vs Factor)** ***Modules 10 & 11***

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- This graph doesn't mean a thing until you have entered some Factor or other, under *Enter classes & factors*
- Remember, what's going to be plotted here is *Diff* (just another term for CLG). *Diff = Achieved – Typical.* On the previous scatterplot (Achieved vs Typical) look for the student who is furthest above the line of Achieved = Typical. S/he will be at the top of the Diff vs Factor scatterplot. Compare the two scatterplots to satisfy yourself of the relationship.
- The point of this graph is to help you investigate numerical data that might explain student performance. For example, if you have data on number of times late, or number of times attending after-school seminars, or anything else across the students, this is a *factor*. *Edit classes & factors* to enter the numerical info, then see if the graph suggests a relationship.
  - Before you print out the graph, think carefully of what a positive/negative relationship would look like.

ADVICE TO STUDENTS: ***MODULE 17***

- How do you use the ***Ranked All*** report in advising students who are trying to play "ATAR games" in choosing subjects?
  - There's value in taking two courses and highlighting each in different colours
  - Look at both relative position and frequency of each course.
  - Remember, not everything hangs on the ATAR
- The 3 best factors for students to consider in choosing subjects:
  - Interest in and enthusiasm for the course;
  - Challenge: it's going to stretch you
  - Capacity: the student has a reasonable chance of handling it (but don't overplay this one; Interest and Challenge are the most important factors NOT "what gets me the best ATAR"!)
- Have you opened the ***TES Details*** report and highlighted your course-of-interest? ***Module 15***
  - Remember that in this report, the courses are listed in the order they count towards the student's ATAR
  - Often students are surprised by where courses such as SOR or English lie.
- Have you used the ***Participation*** report to consider how your students' participation in different courses compares with the average state participation? ***Module 14***
  - This report lists courses in descending order of the comparison between school and state participation
  - Are you challenging enough of your students into doing the 'tough' courses? Fear of failure is a poor motivation.

SCHOOL-LEVEL INFORMATION

- **Overall School Result** ***Module 12***
  - Is Graph #4 going up?
  - Is Graph #2 significantly different from 'Typical'?
    - Is there any difference between Graphs #2 and #4?
    - What causes this?
  - What do differences between (at the top of the page) TotNos and NoIncl mean?
  - Does the Graph#1 to Graph #2 difference give you any further information?
- **School Summary** ***Module 13***
  - There is lots of detail here, but don't over-interpret it. The main information is the order in which courses appear. What you are looking for is patterns, to help in the consideration of individual subjects. The numbers are included just to help seeing the relationships between different graphs.
  - Small courses won't get any 'result' (Achievement above/below/in Typical range). Nothing to see here…
  - The order of the listing is important. Descending CLG/Diff, the difference between Achieved and Typical. This is plotted over time in Graph #4 of an individual course Trend Graph.
  - What does the plot of +H and +L in the Effect column tell you? ***Module 4***
  - What are your top-listed and bottom-listed courses?
  - How do you interpret their placement on this listing?
  - Take each of your courses of interest off this listing, and review each in detail as above on the first page.

ENGAGEMENT WITH THE ANALYSIS

- How many staff have a log-on to the site?
  - How many staff have accessed the site? Is there a gatekeeper controlling staff access?
- How many have a log-on to RAP?
  - How many staff have used RAP? What do you use the RAP for?
- Has someone split the multi-class courses into their classes?
  - Do you have a system for doing this?
- Is there a process for getting new staff to work through the online learning modules?
- Does your school's way of dealing with the Analysis change and develop each year – or are you doing the same old thing?
- What patterns have you found in the Analysis?

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