HSC Analysis – Working with Student Groups

Many schools are analysing HSC results as they look to shape improvement plans for the year ahead. A powerful feature present in both the Results Analysis Package (RAP) and CSNSW HSC Analysis Project (DeCourcy) is the use of groups as a means of digging deeper into the data.

1. Results Analysis Package

The 'Work with Student Groups' function is available in RAP for three or more students. It enables schools to place selected students in groups based on any criteria. Schools can then use various functions within RAP to view data for the groups they have created.

Examples of groups that can be created include classes where more than one class has sat the HSC, clusters of interest, say the top 5 students in a subject, elite athletes, etc. Once created a group can then be used to compare key data metrics between other classes or even different KLAs. Group functionality is available for many of the RAP options on the School HSC and Course HSC Data Grade Analysis screens, including Course Frequency Distribution Tables, Band Analysis, Item Analysis, Item Analysis Table, etc.

Resources to assist with RAP data interpretation are in the 'Memos and Documents' section of Schools Online.

Enquiries can be directed to the Quality in Credentialling Unit at QC@nesa.nsw.edu.au or phone 9367 8218.

2. CSNSW HSC Analysis Project

When analyzing students' Achieved and Typical results it is often of interest to know how students in different classes of a course have performed. The HSC Data Analysis package accommodates data entry of both categories (class or other groups) and factors (absentee rates, etc). If groups are created, the analysis will generate as many scatterplots as the codes entered, facilitating comparison of group performance. The Class Mean Difference figure calculated represents the average difference between students' achieved HSC marks and the Typical mark. Factors can be any numerical data that might explain variation, a chart will be produced showing Comparative Learning Gain.

Assistance is provided via the HSC Analysis Online Tutorials which has 17 modules covering each step of the analysis. Modules 9 and 10 cover entry and interpretation of Class and Factor data. The tutorials can be accessed via "E-Learning" using NetID.

Bringing class groups together from both RAP and the CSNSW HSC Analysis Project is often helpful in understanding variation in performance as it is possible to bring granular performance data together for components and items in RAP with estimates of Comparative Learning Gain based on student factors and prior achievement. Downloading Class Group results from the RAP Item Analysis Table with performance then mapped to syllabus content, skills, question type and other fields can stimulate powerful learning discussions amongst teachers.

2020 HSC SOR I - RAP Item Analysis Table Download Mapped to Content and Syllabus Outcomes															
Item	Max Mark	State Count	School Count	Count A	Count B	Count C	State Mean	School Mean	State % Max Mark	School % State Mean	A Mean	B Mean	C Mean	Content	Syllabus Outcomes
Section I - 1	1	8081	60	22	22	16	0.57	0.57	57.0%	99.8%	0.47	0.63	0.62	Present religious landscape – new age religions	H1
Section I - 2	1	8085	60	22	22	16	0.69	0.69	69.0%	100.0%	0.76	0.81	0.43	Religious expression in Australia – ecumenism	H3
Section I - 3	1	8083	60	22	22	16	0.57	0.71	57.0%	124.9%	0.64	0.72	0.80	Present religious landscape – secularism	H3, H5
Section I - 4	1	8078	60	22	22	16	0.74	0.81	74.0%	109.7%	0.82	0.90	0.68	Changing patterns of religious adherence	H3
Section I - 5	1	8083	60	22	22	16	0.87	0.94	87.0%	108.2%	0.94	0.95	0.93	Aboriginal spirituality – obligations to land and people	H1, H5
Section I - 6	1	8086	60	22	22	16	0.81	0.85	81.0%	104.7%	0.82	0.86	0.87	Aboriginal spirituality – land rights movement	H1, H3
Section I - 7	1	8066	60	22	22	16	0.45	0.44	45.0%	98.2%	0.35	0.63	0.31	Changing patterns of religious adherence	H4
Section I - 8	1	8075	60	22	22	16	0.65	0.76	65.0%	116.5%	0.76	0.81	0.68	Aboriginal spirituality – land rights movement	H2, H3
Section I - 9	1	8083	60	22	22	16	0.13	0.05	13.0%	37.7%	0.00	0.09	0.06	Changing patterns of religious adherence	H3, H4
Section I - 10	1	8080	60	22	22	16	0.35	0.30	35.0%	86.0%	0.47	0.22	0.18	Aboriginal spirituality – the effect of disposession	H3
Section I - 11	5	8084	60	22	22	16	3.57	3.65	71.4%	102.2%	3.64	4.13	3.00	Australia's religious landscape since 1945	H2, H8
Section II - 13ai	3	3359	26	8	9	9	2.87	2.96	95.7%	103.1%	3.00	3.00	2.88	Significant Practice	H1, H4, H8
Section II - 13aii	4	3359	26	8	9	9	3.24	3.57	81.0%	110.3%	3.00	3.66	4.00	Significant Practice	H1, H4, H8
Section II - 13b	8	3359	26	8	9	9	5.26	5.31	65.8%	100.9%	5.25	6.55	4.11	Significant Person	H2, H4, H8
Section II - 15ai	3	3106	34	14	13	7	2.75	2.74	91.7%	99.7%	2.88	2.84	2.28	Significant Practice	H1, H4, H8
Section II - 15aii	4	3106	44	24	13	7	3.14	3.08	78.5%	98.1%	3.11	3.69	1.85	Significant Practice	H1, H4, H8
Section II - 15b	8	3106	44	24	13	7	5.62	5.93	70.3%	105.6%	5.11	7.15	6.50	Ethical Teaching	H2, H4, H8
Section III - 18	20	4416	34	14	13	7	12.67	11.39	63.4%	89.9%	11.30	11.00	12.28	Holistic	H2, H4, H8, H9
Section III - 20	20	2463	25	8	9	8	14.08	13.62	70.4%	96.7%	13.50	16.88	10.06	Significant Person or School of Thought	H2, H4, H8, H9

Figure 1. Example from a School that has recently examined question response by class. In this instance whilst Class B has the highest mean, the Comparative Learning Gain of Class A was highest of the three classes.

Reports made available from NESA in relation to RAP and the CSNSW HSC Analysis Project suggest that less than 30% of Catholic Schools in NSW are making much use of the group functionality.

For assistance in relation to HSC analysis please contact your Diocesan representative or Gary Molloy .