

Know Your *Students* & Know Your *Course*

Using the NBT Data



PHY0000F

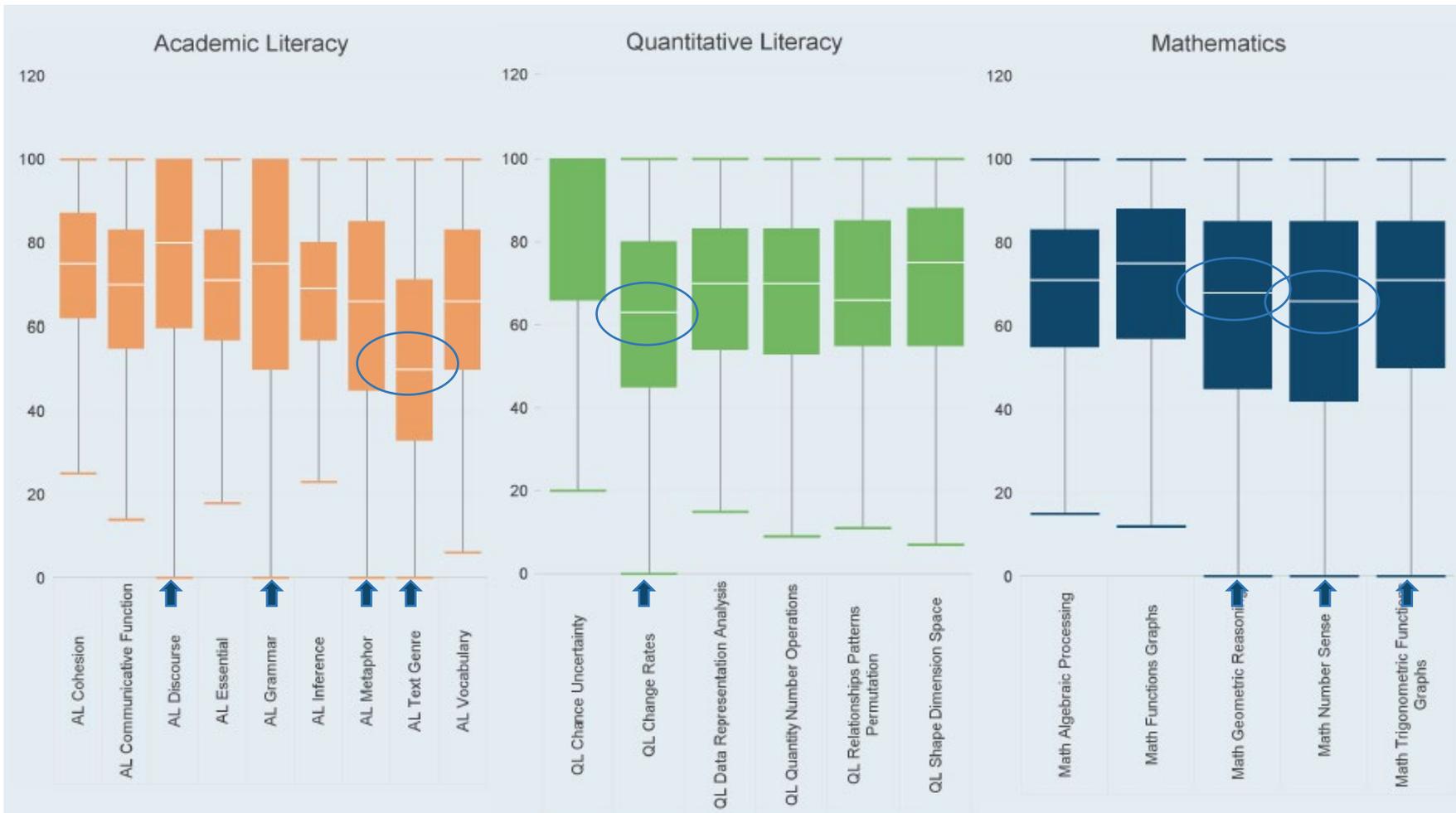
2022 Cohort:
450 students enrolled
77.8% FU

3-year median grade – 75%

3-year pass rate – 91%

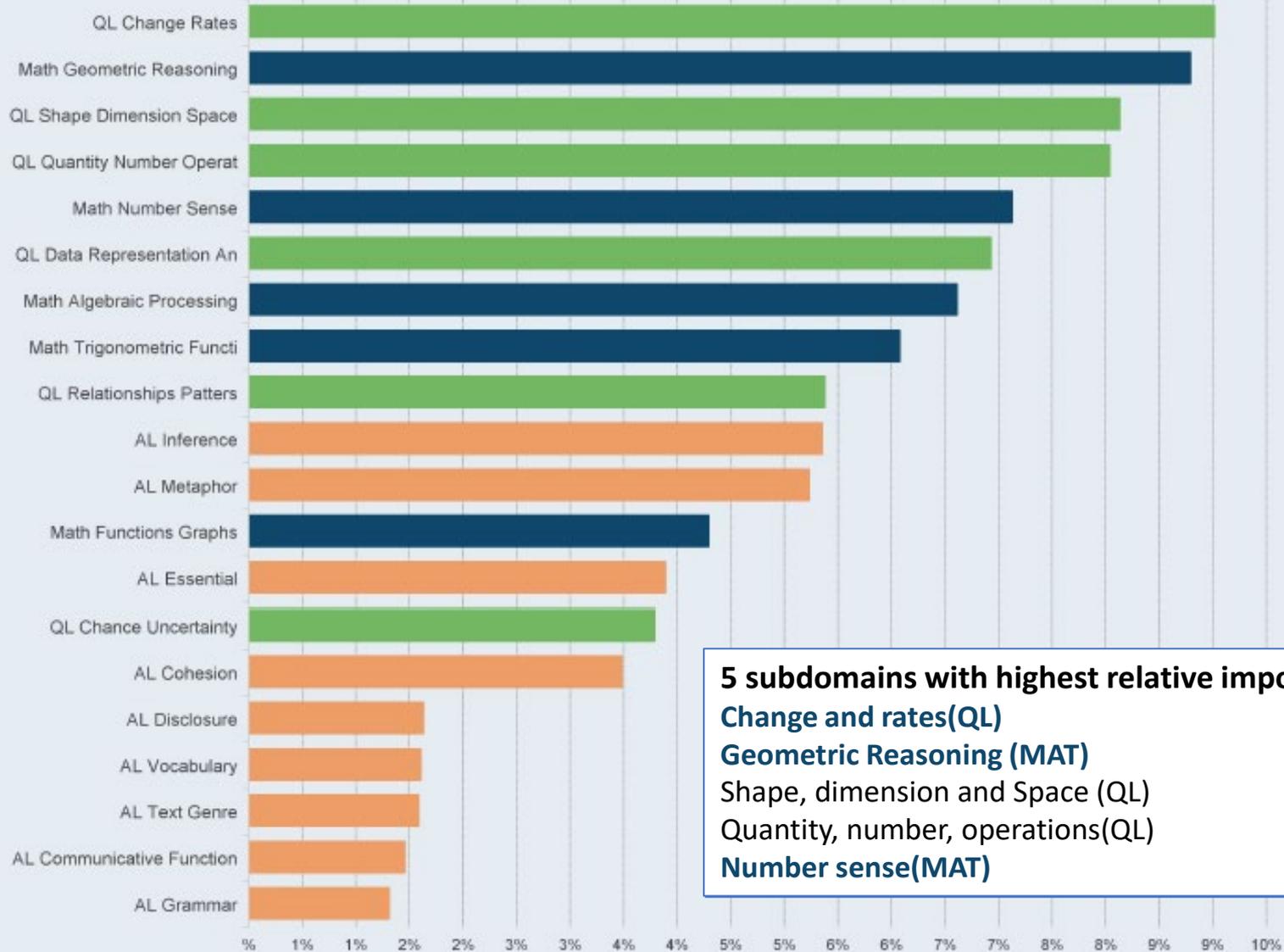
Course grade distribution compared over five years 2017-2021 – 2021 Median lower than in 2017, 2018, 2020 and comparable to 2019; Range much wider than previous years





AL	QL	MAT
Lowest median(s): Text Genre	Lowest median(s): Change and rates	Lowest median(s): Geometric reasoning Number sense
Widest range(s): Discourse relations Grammar/Syntax Metaphorical expression Text Genre	Widest range(s): Change and rates	Widest range(s): Geometric reasoning Number sense Trigonometric Functions and Graphs

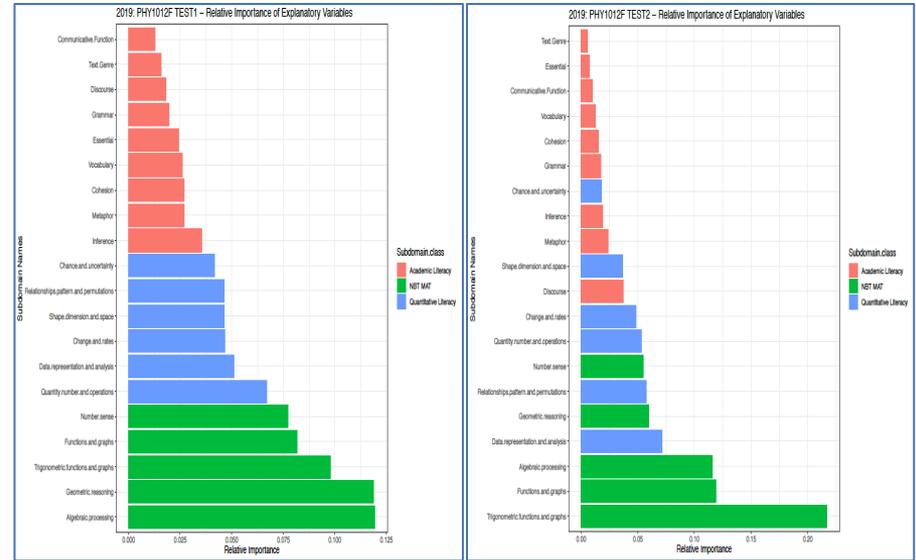
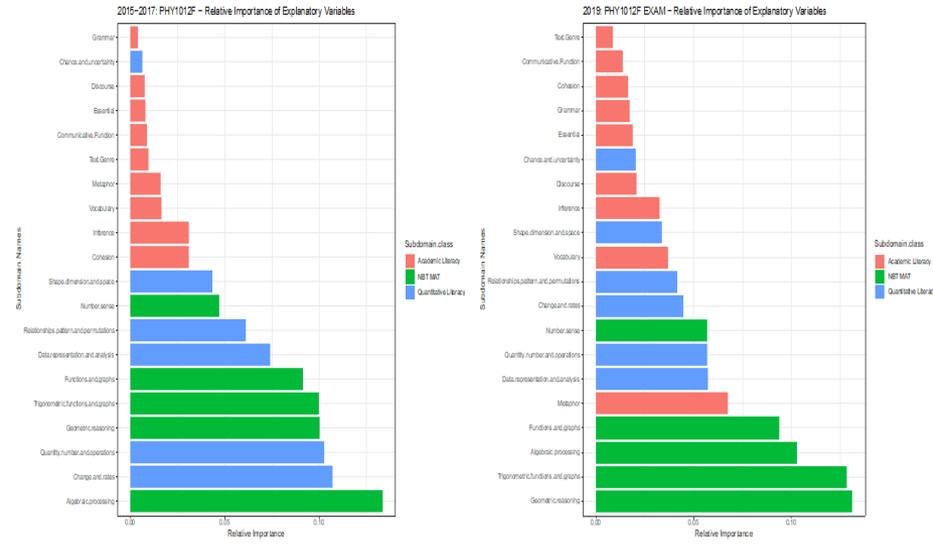
3-Year Average Relative Importance of NBT Subdomain Score to Course Grade



5 subdomains with highest relative importance:
Change and rates(QL)
Geometric Reasoning (MAT)
 Shape, dimension and Space (QL)
 Quantity, number, operations(QL)
Number sense(MAT)

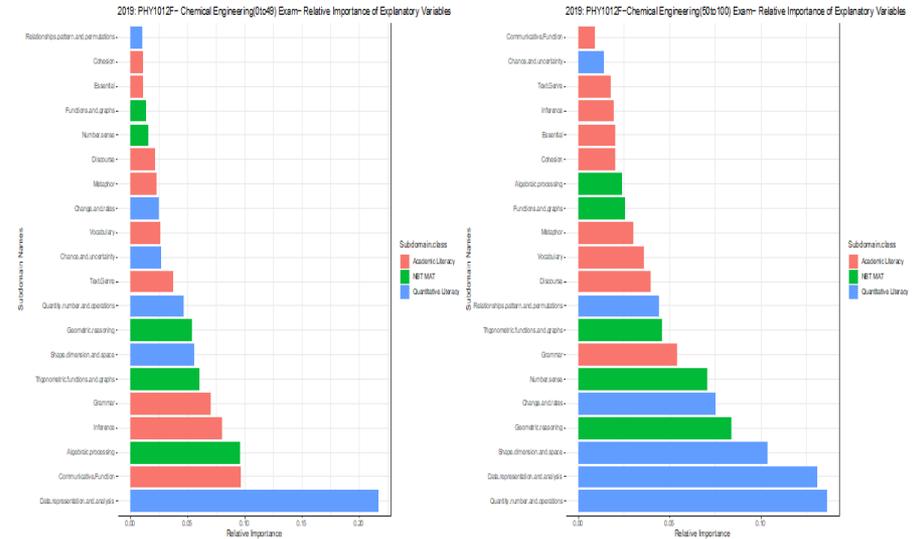
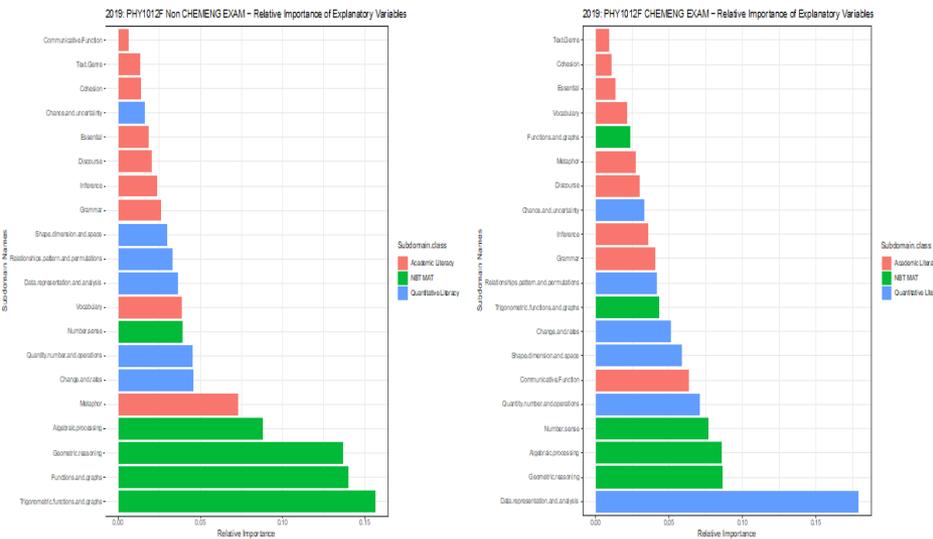
Enrolment years: RIA with final course grade; Different cohorts

Assessment instruments: RIA with different assessments; same cohort



Different streams: RIA with final course grade; Sub cohorts (Chem Eng vs. non-Chem Eng)

Score ranges: RIA with final course grade; Sub cohorts (Score ranges 0-49; 50-100)



Example of domain mapping and its application in Teaching and Learning

Example content – intro to vector calculus in physics



Informing teaching and learning...

- Identify areas (subdomains) that may be problematic / having a negative impact on performance based on data.
- Determine how these things are relevant to curriculum content and the observations you have made.
- Explore possible solutions: Additional resources/support; changes in assessment practices or sharing of success criteria; changes in how you approach specific parts of the curriculum in your teaching.

task at hand.

Thank you

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