

Reflecting on a transitive Summer School in Namibia

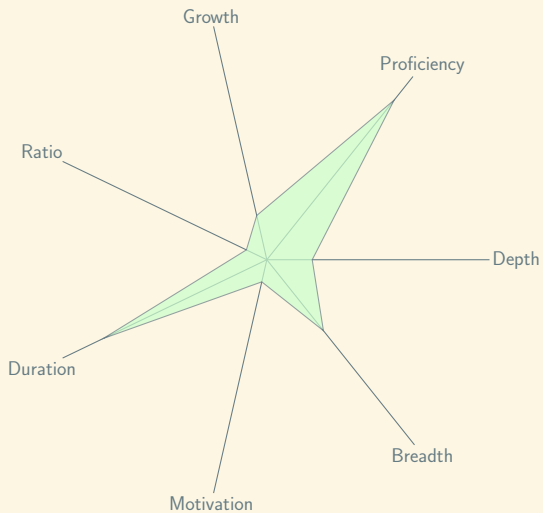
Rob Wilson

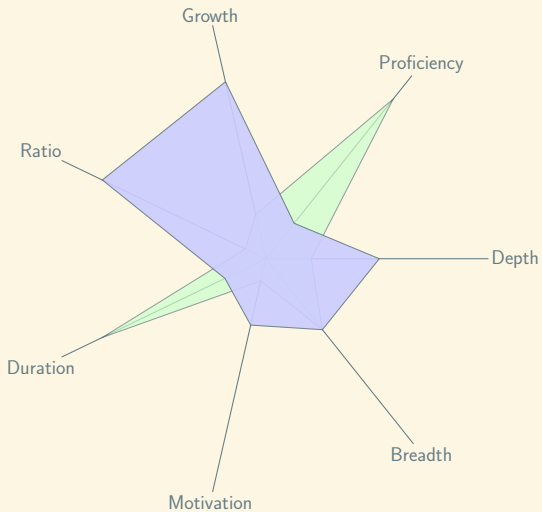
Vince Knight @drvinceknight

Many more

www.cardiff.ac.uk/phoenix-project







- ▶ Morning & afternoon workshops over 2 weeks
- ▶ Sessions based on mathematical topics
- ▶ Three groups of 20 students
- ▶ Aim to encourage exploration and develop confidence

Manipulating Fractions

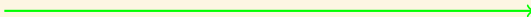
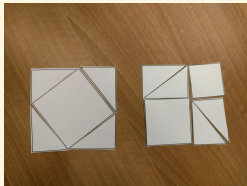
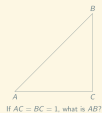
TASK: In groups, complete the following jigsaw puzzle.

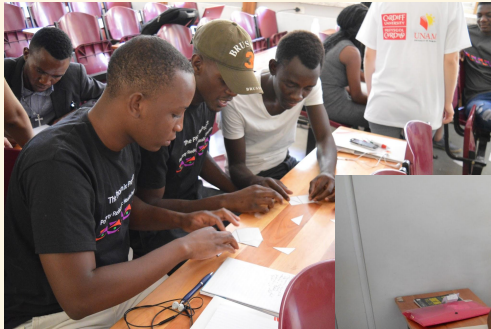
KEY POINTS:

- In order to simplify (cancel down) fractions we have to find **common factors for the numerator and denominator!!!**
- When adding (or subtracting) two fractions, we first have to find a **common multiple** of the denominators. Remember - whatever you multiply a denominator by, you have to multiply the corresponding numerator by the same number. Once the denominators are the same, we can simply add (or subtract) the numerators.
- When multiplying two fractions, we multiply the numerators (of each fraction) and the denominators (of each fraction).

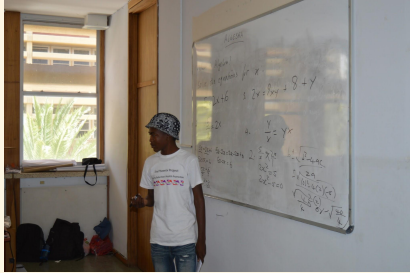
Some further examples

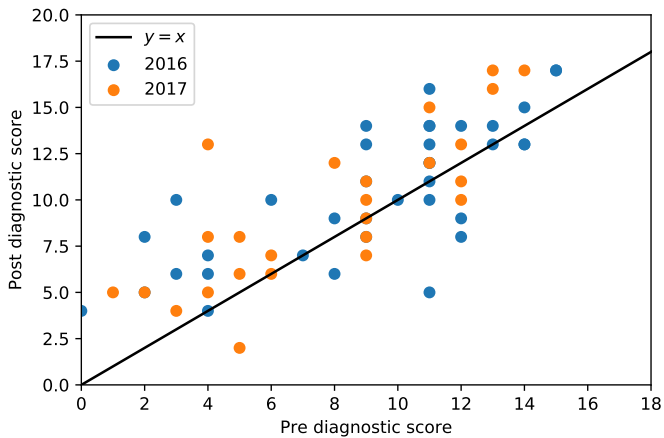
(i) $\frac{15}{18} - \frac{1}{3}$, (ii) $\frac{1}{2} \times (\frac{2}{3} + 1\frac{1}{2})$, (iii) $(1 - \frac{2}{3}) \div (2\frac{1}{2} + \frac{1}{3})$.











Dimension	5%	Median	95%
Extraversion	0.24	0.50	0.88
Agreeableness	0.04	0.40	0.76
Conscientiousness	0.29	0.71	1.00
Emotional Stability	0.04	0.27	0.55
Openness	0.30	0.75	1.00
Strength	0.14	0.27	0.96
Confidence	0.20	0.42	1.00

(a) Above median

Dimension	5%	Median	95%
Extraversion	0.10	0.50	0.90
Agreeableness	0.00	0.40	0.74
Conscientiousness	0.14	0.86	1.00
Emotional Stability	0.09	0.36	0.67
Openness	0.28	0.75	1.00
Strength	0.09	0.27	1.00
Confidence	0.23	0.38	1.00

(b) Below median

- ▶ Mathematics as a solution to a problem
- ▶ Local high schools
- ▶ Critical thinking
- ▶ Connections and friendships
- ▶ High mathematics module grades

- ▶ PAST: Recalibration of importance.
- ▶ PRESENT: Change of practice.
- ▶ FUTURE: How to have similar effects?

“Participating in the Summer School boosted my confidence in being able to work in and adapt to different environments. It was also great to work with educators who were seeking to develop innovative learning experiences, and to share ideas in ways I hadn’t done before.”

Geraint Palmer (PhD Student)

“The summer school gave me the opportunity to engage with students of all abilities and encouraged me to use a variety of different teaching methods. This also helped me move away from the structure of a strict lesson plan, and instead work with the students to create a class that benefitted them.”

Asyl Hawa (PhD Student)



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13 Authors. *“An active learning transition Summer School has a positive impact on students with lower Conscientiousness”* In preparation.

Data: <https://doi.org/10.5281/zenodo.834338>