

Use of data and diversifying the curriculum initiatives to initiate targeted interventions to address awarding gaps

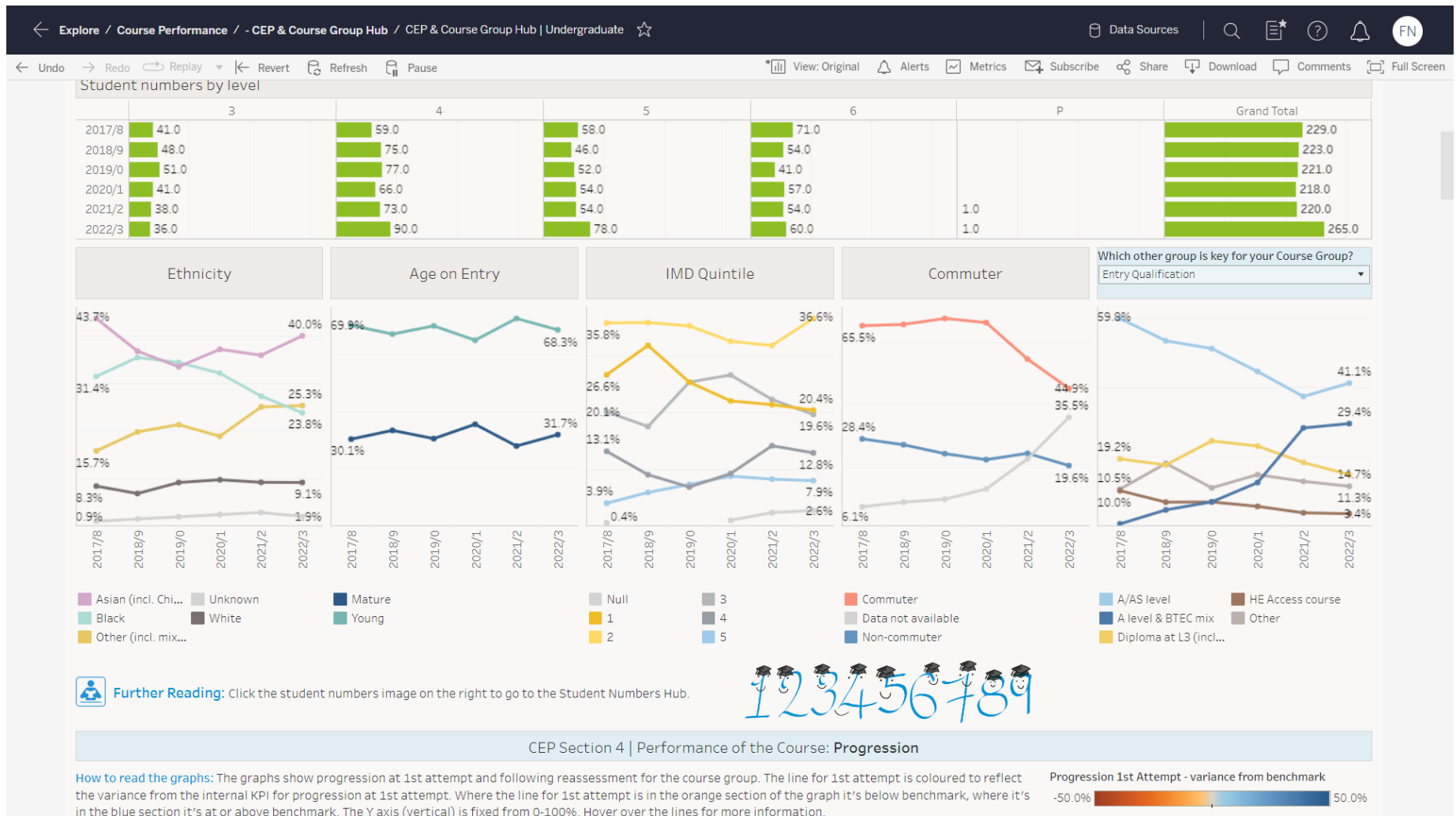
Nicholas Freestone, Neil Williams and Harrychan John
Peter

School of Life Sciences, Pharmacy and Chemistry
Kingston University

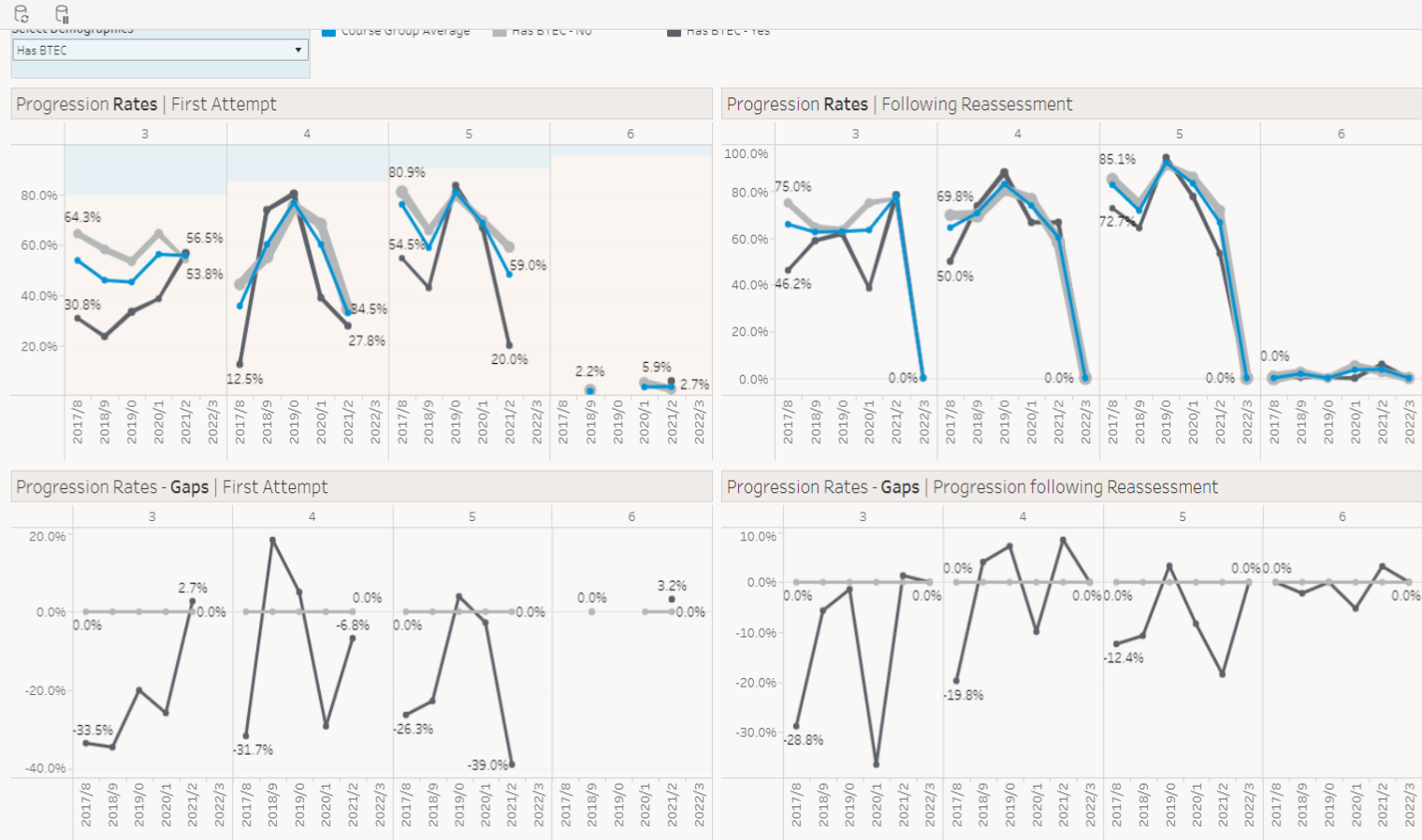
Our Students!!!!!!



Step 1: Know your students



...and their problems



Further Reading: See tabs 3 and 4 on the Metrics by Demographics dashboard - click the blue button on the right to open the dashboard.



Module Pass at 1st Attempt - see tab 1 for faculty/department summary, and tab 6 for the Course Leaders' Homepage - click the blue button on the right for to go to the dashboard.



CEP Section 4 | Performance of the Course: % Completed at Level 6, and how it looks when split out by demographics

Things to think about: Are there differences in % completed between the different groups? How far from the overall average is each group? Are the gaps similar every year? Does the pattern change? Are there any other demographic groups you need to consider in relation to your module? How might the degree awarding gap be affected by gaps in progression rates? Consider what actions could be taken to reduce the gaps.

How to read the graphs:

% Completed - The graph shows the % of students with a progression record indicating an award has been made. The Y axis (vertical) is fixed from 0-100%. Hover over the line for more information.

Rates - The coloured lines represent the average % completed for each demographic group. The blue lines (KU blue) represent the course group overall average for reference. The thickness of the line represents the number of students - the thicker the line the more students there are. The Y axis on the demographics (vertical) auto-adjusts to spread the lines out as far as possible for ease of reading.

Select Demographics

Commuter

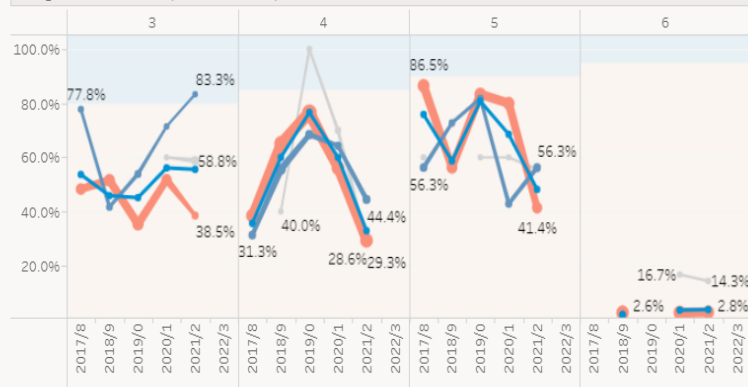
Course Group Average

Non-commuter

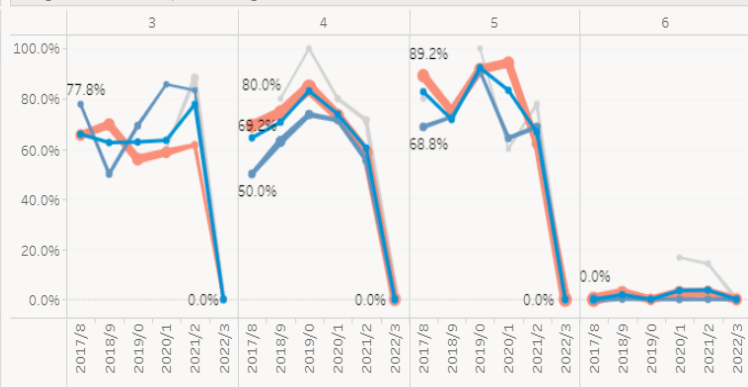
Commuter

Data not available

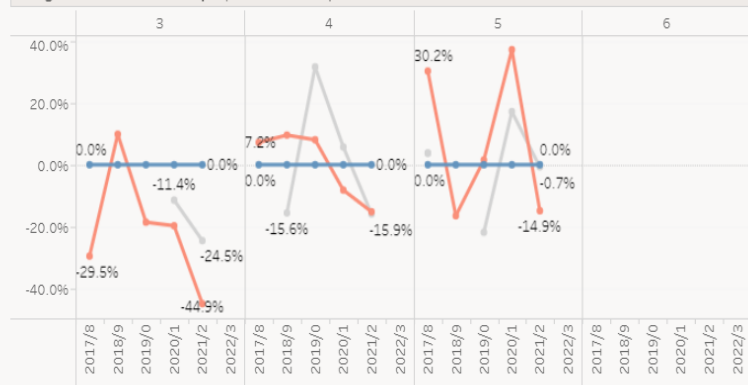
Progression Rates | First Attempt



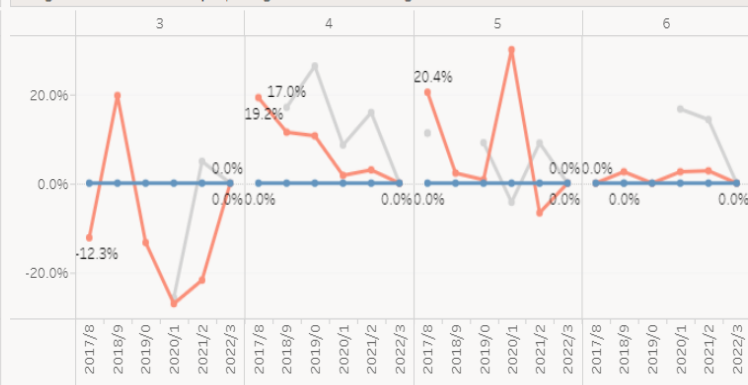
Progression Rates | Following Reassessment



Progression Rates - Gaps | First Attempt



Progression Rates - Gaps | Progression following Reassessment



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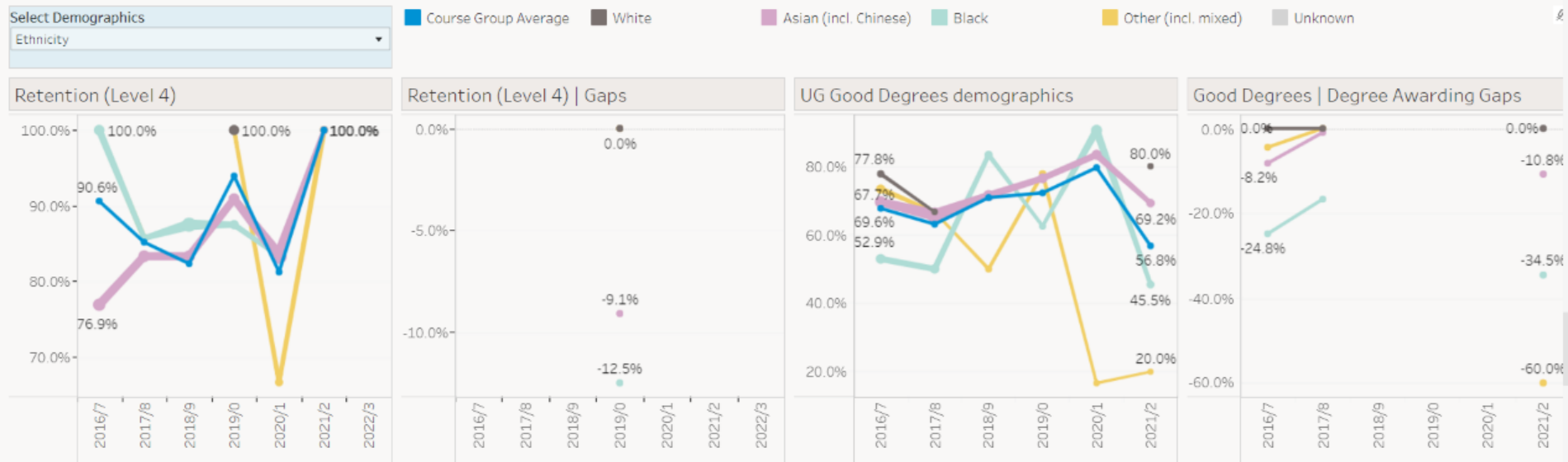
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students, for IMD they all compare to Q5. The gap between the straight line (the comparator) and others shows the gap between the average agreed marks for the comparator and those for the other groups. The comparator is the 'advantaged' demographic group. Note Gender uses Female as the comparator, this is because we may be asked to focus on white working class males in future. Hover over the graphs for more information. Gaps will not be displayed where there are <5 students in any given demographic group.

Degree Awarding Gap: The difference between % Good Degrees awarded to one demographic vs another. If demographic X gets 70% good degrees and demographic Y gets 60% the degree awarding gap is 10%.



Further Reading: Click the bus for the Degree Awarding Gap Hub.



OfS Degree Awarding Gap Data - this replicates the OfS degree awarding gap dashboard shown on the OfS website, note the populations included externally are not identical to those used internally. Click the blue button on the right to go to the dashboard.

Module Average Agreed Marks - see tab 1 for faculty/department summary, and tab 6 for the Course Leaders' Homepage - click the blue button on the right to go to the dashboard.

CEP Section 5 | Performance of the Course: Value Added

Things to think about: Are there differences in Value Added between the different groups? How far from the sector expectation is each group? Are the gaps similar every year? Does the pattern change? Are there any other demographic groups you need to consider in relation to your course group? Consider what actions could be taken to help students meet sector expectations.

How to read the graphs: Note the students included in the Value Added population are a narrower group than the calculation for good degrees shown above. The VA population is full time, first degree students.

Value Added Score: The line graph on the left shows the Value Added score for each demographic group. 1 is where the % Good Degrees meets the Sector Expectation (think "breaking even"). Above 1 shows % Good Degrees has exceeded Sector Expectation (value is added, think "making a profit"). Below 1 shows % Good Degrees has not met Sector Expectation (negative value added, think "making a loss"). The thickness of the line represents the number of students, the thicker the line the more students there are. Hover over the graph for more information.

Interventions

1. Academic Peer Mentoring
(addresses Progression problem)
2. Summer Student Internship Programme
(addresses the broken pipeline problem – Leading Routes – only 1.2% of UKRI Research studentships went to Black or Black/Mixed students)

PharmSci

CH4004	Not Engaged		Engaged	
	Total FPE	% Passed	Total FPE	% Passed
Asian (incl. Chinese)	15	73.3%	22	100.0%
Black	11	72.7%	12	91.7%
Mixed/Other	2	100.0%	5	100.0%
White	9	77.8%	1	100.0%
Learning difficulty	0	-	2	100.0%
Other disability	1	100.0%	5	80.0%
No disability	39	74.4%	34	100.0%
1st gen to HE	24	70.8%	21	95.2%
Not 1st gen to HE	15	86.7%	19	100.0%
Income 25K or below	16	81.3%	17	100.0%
Income above 25K	4	50.0%	6	100.0%
Mature	5	60.0%	6	100.0%
Young	35	77.1%	35	97.1%
Male	29	75.9%	11	100.0%
Female	11	72.7%	30	96.7%
Not disadvantaged	8	75.0%	13	100.0%
Disadvantaged	30	73.3%	28	96.4%
Overall	40	75.0%	41	97.6%

Politics

PO4004	Not engaged		Engaged	
	Total FPE	% Passed	Total FPE	% Passed
Asian (incl. Chinese)	5	80.0%	0	-
Black	14	85.7%	4	100.0%
Mixed/Other	4	75.0%	1	100.0%
White	14	92.9%	10	100.0%
Learning difficulty	1	100.0%	3	100.0%
Other disability	5	80.0%	2	100.0%
No disability	38	89.5%	22	95.5%
1st gen to HE	20	85.0%	13	100.0%
Not 1st gen to HE	22	90.9%	10	90.0%
Income 25K or below	19	94.7%	10	90.0%
Income above 25K	3	100.0%	3	100.0%
Mature	8	87.5%	4	100.0%
Young	36	88.9%	23	95.7%
Male	10	90.0%	9	88.9%
Female	34	88.2%	18	100.0%
Not disadvantaged	15	86.7%	8	87.5%
Disadvantaged	24	87.5%	14	100%
Overall	44	88.6%	27	96.3%

+ 22.6%

**FACULTY OF SCIENCE,
ENGINEERING AND COMPUTING**

Maths

MA4100	Not Engaged		Engaged	
	Total FPE	% Passed	Total FPE	% Passed
Asian (incl. Chinese)	11	90.9%	7	100.0%
Black	9	55.6%	3	100.0%
Mixed/Other	1	100.0%	2	100.0%
White	7	85.7%	6	100.0%
Learning difficulty	1	100.0%	0	-
Other disability	1	100.0%	3	100.0%
No disability	28	82.1%	21	100.0%
1st gen to HE	17	88.2%	12	100.0%
Not 1st gen to HE	12	66.7%	9	100.0%
Income 25K or below	10	90.0%	9	100.0%
Income above 25K	5	100.0%	3	100.0%
Mature	2	100.0%	4	100.0%
Young	28	78.6%	20	100.0%
Male	17	70.6%	14	100.0%
Female	13	92.3%	10	100.0%
Not disadvantaged	13	76.9%	12	100.0%
Disadvantaged	16	81.3%	8	100.0%
Overall	30	80.0%	24	100.0%

+ 20%

IMPACT: Module Pass Rates

+ 7.7%

Academic Peer Mentoring Programme

FACULTY OF SCIENCE,
ENGINEERING AND COMPUTING

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+ 22.6%
increase in
module pass
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Enabling ALL students to obtain a “good” degree via a Summer Internship Scheme

Benefits of an Internship scheme

- **Increases the likelihood of ethnic minority students pursuing postgraduate study in STEM.**

(Pender et al., 2010)

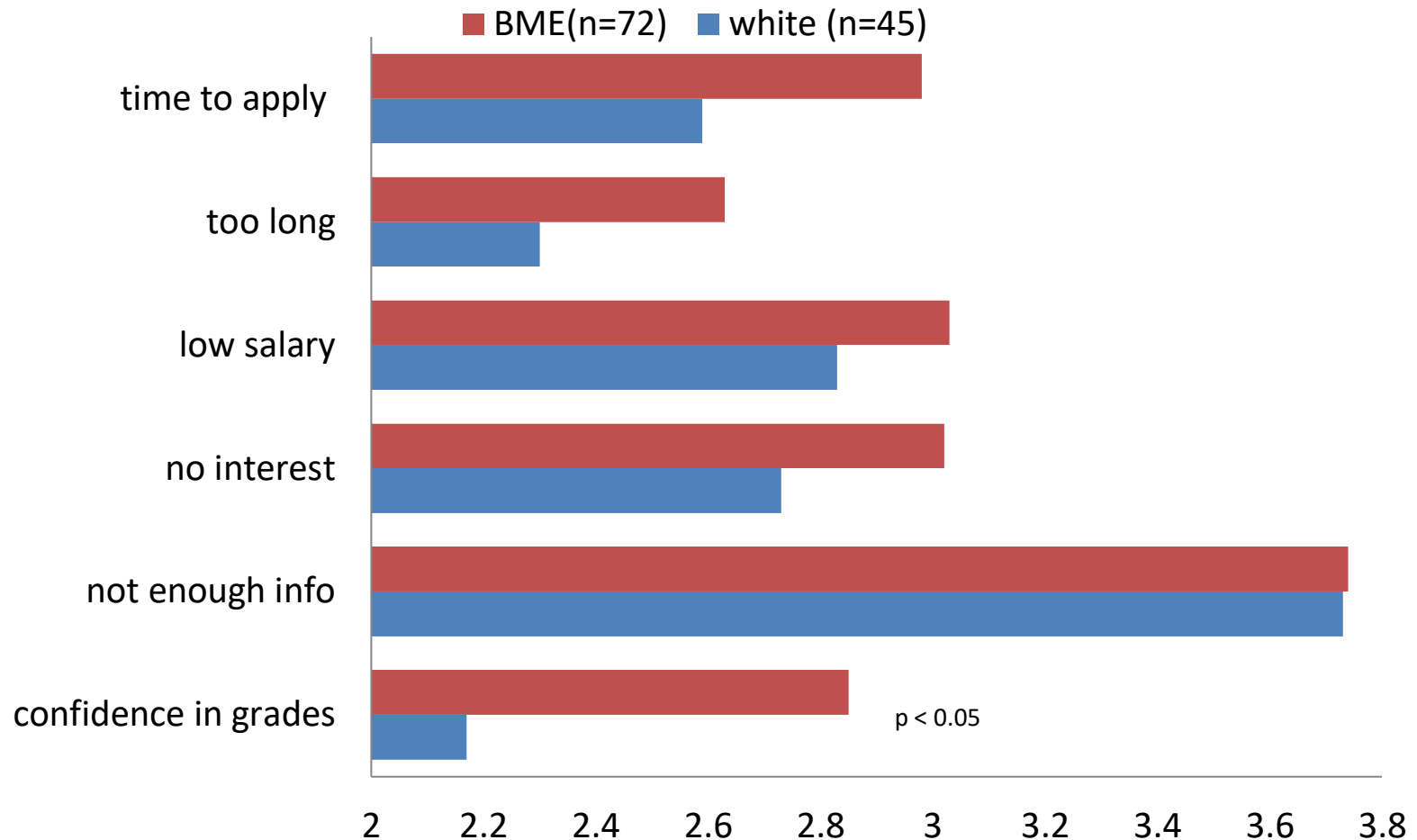
- **Under-represented students rated their learning gains higher in many areas than the comparison group of Caucasian/Asian American students**
(Lopatto, 2007)

Benefits of an Internship scheme

- Improves laboratory and research skills
- Preparation for final year research projects and PG study
- Students as Partners
- Builds student confidence
- Develops key skills- communication etc.
- Embraces Research Informed Teaching
- Stretches more able students

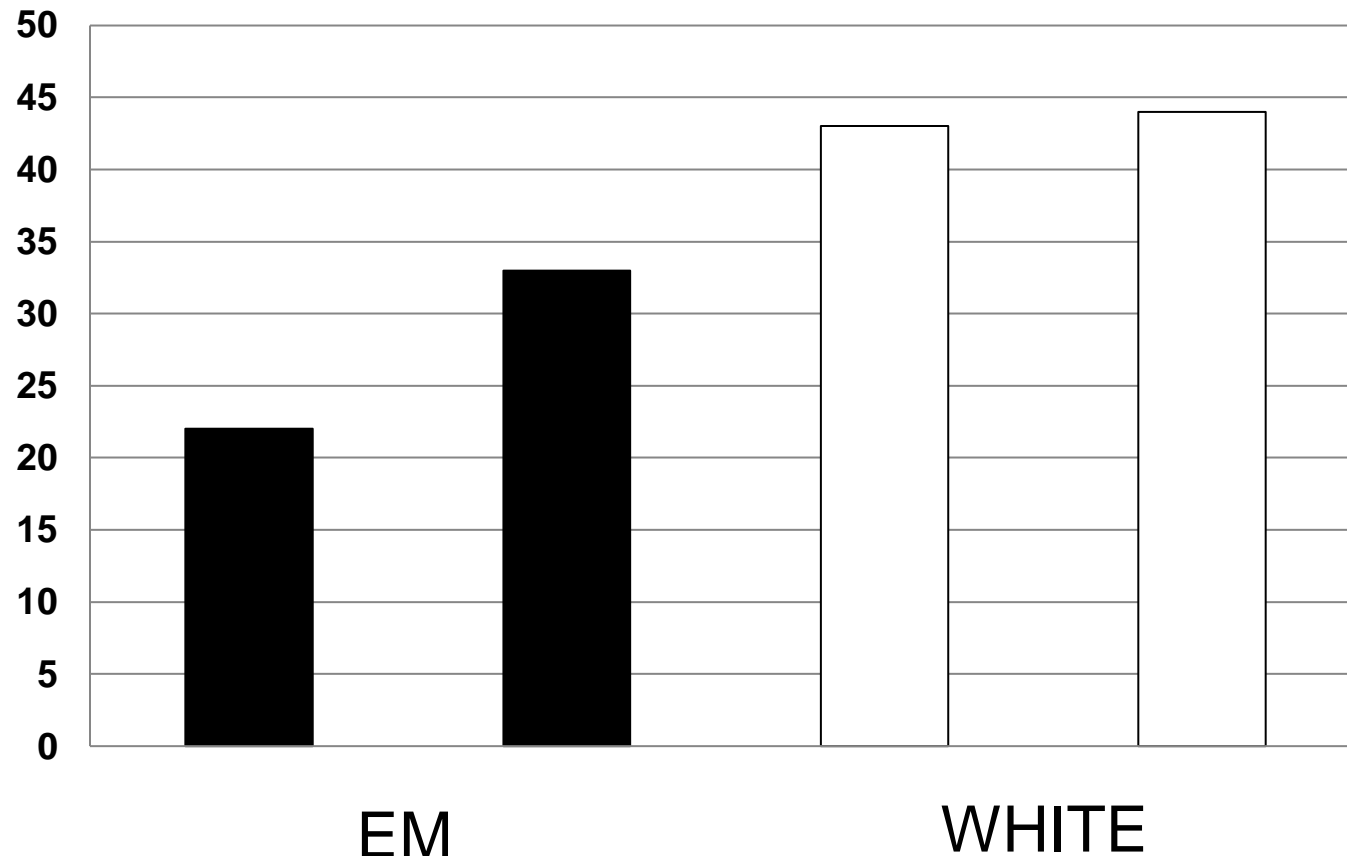
(Seymour *et al.*, 2004, 2007; Lopatto, 2004; Russell *et al.*, 2007; John and Creighton, 2011)

Reasons why students do not engage

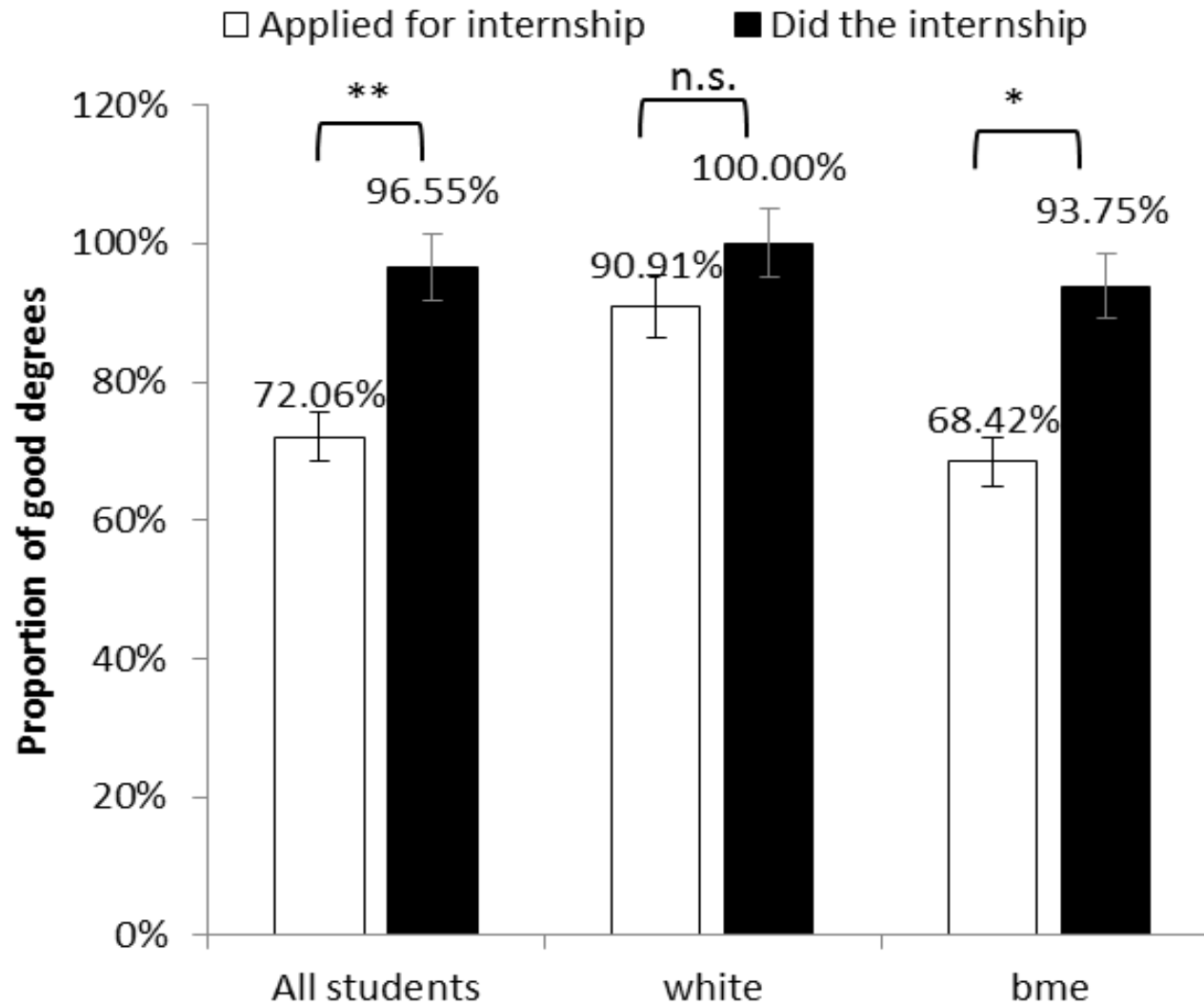


Applicant success rates after modifications to a summer research internship scheme

% success of intern applicants



Summer Research Internships



Diversifying the Curriculum

The NUS has produced a document entitled “Why is my curriculum white?” (2019).

Consequently, UK HEIs are having to respond to demands such as those being put by the NUS.

There is a need then to provide academic teaching colleagues with a resource that enables them to decolonise their curricula in a straightforward but meaningful way.

How though?.....in such a fraught and politically contested environment



By utilising the student voice and their own experiences and backgrounds.

The Student Voice

Students firstly identified the importance of an appreciation of diversity within the curriculum (93% of students surveyed) but then reported that they felt that their cultural and ethnic diversity was not valued by the university (53% of students surveyed).

Even more worrying 60% of the students did not see themselves represented in any way in their curriculum. Consequently 90% of students felt that it was matter of urgency that the university acted to "decolonise the curriculum".



This Sri Lankan born professor was known to be a leading scientist on the chemical origins on life. Cyril Ponnampieruma was born in Galle, Sri Lanka on 16th October 1923, situated 74 miles from the country's capital, Colombo. He studied his early education at St. Aloysius College and went to then study at St. Joseph's College in Colombo, from there he completed his degree in Philosophy at the University of Madras in 1948.

At his time during University, Cyril decided he wanted to study Chemistry. He went to complete a Bachelor of Science in Chemistry at the University of Birkbeck in 1959, it was at this moment in London that he developed a strong interest and curiosity about the origins of life. The professor then went to The United States to achieve his Doctorate under the guidance of Nobel Laureate Melvin Calvin at the University of California. He spent his next year being the editor in chief for the scientific journal, "Origins of Life", where he had published over 400 articles.

Prof. Ponnampieruma joined NASA's Exobiology Division and took over the Chemical Evolution Division, where he was offered a membership in the Space Science Advisory Council and Life Sciences Advisory Council of NASA.

From this, He tried to learn how the building blocks of life could possibly have been synthesized outside a living cell.

According to Arthur C. Clarke,
"No other scientist of Sri Lankan origin was internationally known and respected as he was".



CYRIL

PONNAMPIERUMA

The output:

This project sought to produce a student-generated and accessible resource highlighting the contribution of bioscientists from under-represented communities in an infographic Case Study format.

The Process

Step 1: First year undergraduates engaged in a task to undertake a literature search on a relevant topic that interests them (first sourced via Science Daily, Science News, Science Focus).

Step 2: These students then find the original peer-reviewed journal article and then try to find another paper covering the same material published by someone with personal relevance to them (same name, hometown, ethnicity, country etc). Using this approach, no one is excluded.

Step 3: Final year undergraduate project students or Master's students use these biographies to generate illustrations of the scientists identified by the First Year students.



LH image: a drawing of a drawing from the cover of Time Magazine by Bijou Karman.

RH image: in the US public domain as published before 1927.



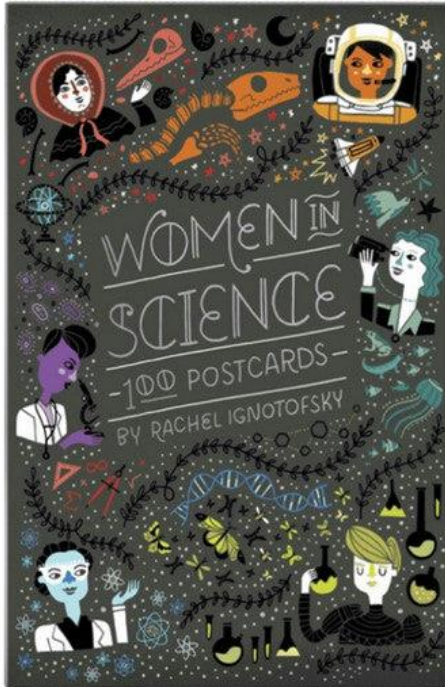
Some student comments.....

“My origins are St Lucian. This was an excellent way to.....discover unknown scientists from under-represented communities to broaden out the curriculum”

“I was born and raised in Eritrea. It's rare to find a scientist from Eritrea in the UK university system or in the literature studied at UK universities because as well as it being a small country and not well known; it's also a country where any scientific advances are not appreciated worldwide. As a result this research is critical for the development of my knowledge of the science coming from my own community.”

“Researching a scientist who had my surname and the same home country motivated me to work extra hard. People from West Africa find it difficult to come to prominence. During my research, I realized no matter where you are from, your hard work and diligence can pay off someday.”

The ultimate aim is to produce a series of electronic downloadable postcards or a booklet with much of the content being derived from students themselves, reflecting their own cultural and ethnic backgrounds (Prachi “you can’t be what you don’t see”).



Four Pillars of Culturally Sensitive Curricula Scales

(Thomas and Quinlan, 2021)

1. Diversity Represented



2. Positive Portrayals



3. Challenge Power



4. Inclusive Classroom Interactions



These are just a few of the schemes at KU. There are others.....

The Kingston Award – students take part in activities, events etc to build up a portfolio of skills. Participation greatly increases progression rates.

Beyond Barriers Mentoring Scheme – under-represented student groups are given industrial/commercial mentors to inspire self-confidence.

Student Ambassadors Scheme – students are given paid employment opportunities, part-time during term-time. There is a competitive recruitment process and induction training.

Navigate Workshops – for Level 3 and 4. These are personal development workshops to help students develop self-awareness, and build self-motivation and self-efficacy which will be valuable throughout their degree.

Elevate – designed to empower and support Black (home) students, equipping them with the commercial awareness and skills needed to compete in the job market.

“Why are the notions of absolute truth so fixed?”
Jason Arday

It's still a work in (post-Covid) progress but.....



In the category of
Course Design,
Retention and Student
Outcomes



Shortlisted in the Education
category



Shortlisted for Outstanding
Contribution to Equality, Diversity and
Inclusion