

Committee:	Education Committee
Title of paper:	Analysis of student performance on Capstone modules by ethnicity
Classification:	Restricted to Education Committee members, University and Students' Union staff
Action required:	For information, discussion and approval
Paper sponsor(s):	Professor Madeline Eacott, Pro-Vice-Chancellor Education
Paper author(s):	Stephanie Rusillo, Planning and Data Insight Officer
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1. Purpose of the report
This paper has been produced at the request of Education Committee by the Chair (PVC-E). The investigation considers the difference in the attainment gap of Capstone and non-Capstone modules between Black, Asian and Minority Ethnic (BAME) and White students.

2. Executive summary
<p>Key Observations Summary:</p> <ul style="list-style-type: none"> • At institutional level there is a consistent award gap for both capstone modules and non-capstone modules. The award gap in 2018/19 is -4.8% for Capstone modules and -13.9% for non-Capstone modules. (para. 12, 13) • The BAME attainment gap is lower for Capstone modules than non-Capstone modules at institutional level from 2016/17 to 2018/19 but both are significant. (para. 14) • The award gaps are larger for Black students in both Capstone and non-Capstone modules compared to other ethnicity groups at -10.0% and -19.5% respectively in 2018/19. (para. 19) • The attainment gap is consistently wide for Black male students in non-Capstone modules from 2016/17 to 2018/19, at -20.4% in 2018/19. (para. 23) • The attainment gap for Black male students in Capstone modules has increased by 12.9 percentage points from 2016/17 to 2018/19 from -2.5% to -15.9%. (para. 24) • The attainment gap for BAME students is smaller in Capstone modules than non-Capstone modules for nine departments in 2018/19: Economics, Essex Business School, Government, Language and Linguistics, Law, Philosophy and Art History, Psychology, Sociology and Sport, Rehabilitation and Exercise Sciences. (para. 27) • The attainment gap for BAME students is larger in Capstone than non-Capstone modules for six departments in 2018/19: Computer Science and Electronic Engineering, Health and Social Care, History, Life Sciences, Literature, Film, and Theatre Studies, and Mathematics. (para. 28) • Psychology consistently shows smaller attainment gaps for both Capstone and non-Capstone modules compared to other departments at -1.4% and -4.6% respectively in 2018/19. (para. 30)

3. Resource implications (financial and staffing)
No implications in relation to resources have been identified.

4. Legal and regulatory considerations
Equality monitoring is a statutory requirement. In May 2018 the Data Protection Act 1998 (DPA) was replaced by the EU General Data Protection Regulations – Regulation 2016/679 (GDPR). The withdrawal of the UK from the EU took effect on 31 January 2020 and changes in legislation still apply during the transition period until 1 January 2021. In summary, some of the terminology and definitions of protected characteristics will be

changed. Explicit consent to use, analyse and report such data will still be required. The impact of these changes on Equality and Diversity monitoring will need to be considered in due course.

5. Equality impact assessment

The paper seeks to improve understanding of equality issues at module level where further action might be needed to address apparent or potential inequality or areas of concern.

6. Consultation undertaken/required

Naomi Drinkwater, Head of Planning and Data Insight

7. Analysis of risk

In the Access and Participation Plan 2021-2024 we have committed to reduce the attainment gap between:

- White and BAME students achieving Good Degrees from a baseline of 14.4% to 8.8% by 2024/25.
- White and Black students achieving Good Degrees from a baseline of 18% to 9.5% by 2024/25.

Reducing the attainment gap is a strategic KPI (KPI06).

8. Recommendations

1. In the paper 'Decolonising the Curriculum' (submitted to the Education Committee) there is a proposed recommendation for all departments to undertake a curriculum review to decolonise their curriculum. The summary findings of this paper should be made available to departments to aid their reviews.
2. As part of their curriculum review, departments should note the findings in this report and consider both capstone modules and non-capstone modules.
3. Good practice should be sought from those departments where the award gap is low, including Psychology, LiFTS and Maths.

Analysis of student performance on Capstone modules by ethnicity

Introduction

- 1 The disparity between the proportion of good degrees awarded to Black, Asian and other minority ethnic students is a cause of concern. Over the last five years, the Good Degrees attainment gap has remained relatively similar for all undergraduate students and is currently -15.7 percentage points in 2018/19.
- 2 In 2019, UUK and the NUS investigated the effect and gathered evidence from 99 universities and student unions and six regional roundtable evidence sessions with 160 attendees on how the attainment gap should be tackled. The resulting report, *Black, Asian and minority ethnic student attainment at UK universities: #ClosingtheGap*, recommended five steps for universities to improve BAME student outcomes, including Providing strong leadership; Having conversations about race and changing cultures: Developing racially diverse and inclusive environments: Getting the evidence and analysing the data on the attainment gap and Understanding what works.
- 3 This report aims to follow the recommendations by gathering evidence and analysing data on the attainment gap at Essex. It will also seek to identify any areas of good practice in order to identify what works.
- 4 All summative assessment at Essex has been assessed anonymously. Despite this, the BAME award gap has not been eliminated. Capstone modules have been identified as significant contributors to final degree outcomes and ones that involve a significant element that cannot be fully anonymised.
- 5 For this reason, the BAME award gap in capstone modules has been analysed in comparison with other final year non-capstone modules in order to determine if capstone modules are a significant contributor to the award gap and therefore might be an area for impactful intervention.

Methodology

- 6 A Capstone module is a dissertation or research project of credit-bearing value to be completed by undergraduate students in their final year, utilising research skills gained throughout their course.
- 7 The Capstone module group contains level 6 modules identified by each department that were completed by undergraduate students. The non-Capstone module group contains all other credit bearing level 6 modules completed by undergraduate students. A student will be counted for each module they have completed. If a student fails the year and resits in a different year, both years will be included in the data. Null module marks are excluded from the data.
- 8 The population includes all students on an Honour's pathway for BA, BBA, BEng, BSc and LLB courses. All domiciles were included. Students also have the right to refuse to record their ethnicity, for the purposes of this report these students were excluded from any analysis.
- 9 Where the population is less than 10 for the protected characteristic, data has been suppressed.
- 10 Good Degrees methodology is applied to module marks i.e. the proportion of Bachelors students who gained a First Class or Upper Second Class honours. At module level this is the proportion of students who gained 60 marks or higher as a percentage of those who gained a mark for the module. Unlike the TGUG Good Degree methodology, students who registered for a module but ultimately did not gain a mark over 40 (fail) have been included in the population for the comparison of module level performance.
- 11 Data is correct as of 28th September 2020.

Attainment gap at institution level

- 12 At institutional level there is a consistent award gap for both capstone modules and non-capstone modules. (Table 1).
- 13 At institutional level there is a consistent award gap for both capstone modules and non-capstone modules. The award gap in 2018/19 is -4.8% for Capstone modules and -13.9% for non-Capstone modules.

- 14 The BAME attainment gap is lower for Capstone modules than non-Capstone modules at institutional level from 2016/17 to 2018/19 but both are significant.
- 15 BAME students show a slightly lower proportion of fails than White students in Capstone modules at 7.5% and 8.5% respectively in 2018/19. For non-Capstone modules, this is reversed where both BAME students show a slightly higher proportion of fails at 12.4% for BAME students and 11.2% for White students (data not shown).

Table 1. BAME vs White at institution Level from 2016/17 to 2018/19. (n=number of BAME module registrations in 2018/19).

	2016/17			2017/18			2018/19		
	BAME	White	Attainment gap	BAME	White	Attainment gap	BAME	White	Attainment gap
Capstone (n=1262)	72.5%	68.4%	4.2%	70.4%	75.9%	-5.5%	69.8%	74.6%	-4.8%
Non-Capstone (n=7948)	54.6%	68.6%	-14.1%	56.2%	69.7%	-13.5%	54.4%	68.3%	-13.9%

- 16 Table 2 shows the attainment gap for BAME female students is lower than the gap for BAME male students for both Capstone and non-Capstone modules from 2016/17 to 2018/19.
- 17 2016/17 saw an increase in the proportion of white female and male students who failed their Capstone modules from 2015/16 (an increase of 12.4 percentage points to 18.6% and 11.1 percentage points to 19.7% respectively) which may explain the difference in performance to other years (data not shown).

Table 2. BAME vs White split by sex at institution level from 2016/17 to 2018/19. (n=number of BAME module registrations in 2018/19).

		2016/17			2017/18			2018/19		
		BAME	White	Attainment gap	BAME	White	Attainment gap	BAME	White	Attainment gap
Female	Capstone (n=634)	76.5%	69.8%	6.7%	74.3%	77.1%	-2.8%	72.6%	74.6%	-2.0%
	Non-Capstone (n=3980)	59.7%	69.3%	-9.5%	61.6%	70.9%	-9.3%	58.6%	70.9%	-12.3%
Male	Capstone (n=628)	67.4%	66.9%	0.5%	66.1%	74.6%	-8.5%	67.0%	74.7%	-7.7%
	Non-Capstone (n=3968)	48.3%	67.9%	-19.6%	49.8%	68.3%	-18.5%	50.3%	65.3%	-15.0%

- 18 Table 3 shows the attainment gap for each ethnicity group broken down compared to White students.
- 19 The award gaps are larger for Black students in both Capstone and non-Capstone modules compared to other ethnicity groups at -10.0% and -19.5% respectively in 2018/19.
- 20 The attainment gaps vary year on year in Capstone modules for each ethnicity group which may be due to the number of students enrolled in the modules.
- 21 2016/17 saw positive attainment gaps for students of all ethnicities compared to White students in Capstone modules. This can be explained by the 11.3% change in fail rate for White students in Capstone modules from 2015/16 to 19.2% (data not shown).

22 The attainment gap for First Class module marks contributes more to the overall attainment gap than the Upper Second Class attainment gap: the attainment gap for Capstone First Class module marks was -15.3 percentage points in 2018/19 between Black students compared to White students. This is in contrast to the attainment gap for Upper Second Class module marks which was +5.2 percentage in favour for Black students. This shows that in Capstone modules Black students gain a higher proportion of Upper Second Class module marks compared to White students but a much lower proportion of First Class module marks.

Table 3. Ethnicity vs White at institution Level from 2016/17 to 2018/19. (n=number of module registrations 2018/19).

		2016/17		2017/18		2018/19	
		% GD	Attainment gap	% GD	Attainment gap	% GD	Attainment gap
Arab	Capstone (n=34)	84.6%	16.3%	75.9%	-0.1%	73.5%	-1.1%
	Non-Capstone(n=201)	57.0%	-11.6%	50.7%	-19.0%	55.7%	-12.6%
Asian	Capstone (n=582)	75.0%	6.6%	70.0%	-6.0%	72.3%	-2.3%
	Non-Capstone(n=3886)	54.5%	-14.1%	56.4%	-13.3%	56.9%	-11.4%
Black	Capstone (n=471)	69.5%	1.2%	70.8%	-5.1%	64.5%	-10.0%
	Non-Capstone (n=2761)	51.7%	-16.9%	54.1%	-15.5%	48.8%	-19.5%
Mixed	Capstone (n=126)	87.9%	19.5%	72.7%	-3.2%	73.8%	-0.8%
	Non-Capstone (n=814)	63.9%	-4.7%	64.1%	-5.6%	60.9%	-7.4%
Other	Capstone (n=49)	75.0%	6.6%	58.1%	-17.9%	77.6%	3.0%
	Non-Capstone (n=286)	62.0%	-6.7%	55.8%	-13.9%	55.9%	-12.4%
White	Capstone (n=1401)	68.4%		75.9%		74.6%	
	Non-Capstone (n=8765)	68.6%		69.7%		68.3%	

23 Table 4 shows attainment gaps by ethnicity and gender. The data shows that this is consistently wide for Black male students in non-Capstone modules from 2016/17 to 2018/19, at -20.4% in 2018/19.

24 The attainment gap for Black male students in Capstone modules has increased by 12.9 percentage points from 2016/17 to 2018/19 from -2.5% to -15.9%.

25 Black male students are much less likely to gain a First Class mark in a Capstone modules than Black female students and much more likely to fail the module. In 2018/19, only 18.7% of Black male students achieve a First Class module mark in Capstone modules compared to White male students at 41.7% (data not shown).

26 For each ethnicity group the attainment gap is smaller in all Capstone modules than in non-Capstone modules except for Arab male students where this is reversed.

Table 4. BAME vs White split by sex at institution level from 2016/17 to 2018/19. (n=number of module registrations in 2018/19).

			2016/17		2017/18		2018/19	
			% GD	Attainment gap	% GD	Attainment gap	% GD	Attainment gap
Arab	Female	Capstone (n=11)	85.7%	15.9%	83.3%	6.2%	100.0%	25.4%
		Non-Capstone (n=66)	61.5%	-7.7%	50.0%	-20.9%	56.1%	-14.8%
	Male	Capstone (n=23)	83.3%	16.4%	73.9%	-0.7%	60.9%	-13.9%
		Non-Capstone (n=135)	57.0%	-10.9%	50.9%	-17.4%	55.6%	-9.7%
Asian	Female	Capstone (n=280)	79.6%	9.8%	75.4%	10.9%	72.9%	-1.7%
		Non-Capstone (n=1881)	59.1%	-10.1%	62.0%	-8.9%	61.9%	-9.0%
	Male	Capstone (n=302)	69.9%	3.0%	63.6%	-11.1%	71.9%	-2.9%
		Non-Capstone (n=2005)	49.6%	-18.2%	49.2%	-19.0%	52.2%	-13.1%
Black	Female	Capstone (n=257)	72.9%	3.1%	73.8%	73.8%	69.3%	-5.3%
		Non-Capstone (n=1466)	57.0%	-12.3%	59.5%	-11.4%	52.3%	-18.6%
	Male	Capstone (n=214)	64.4%	-2.5%	67.3%	-7.3%	58.9%	-15.9%
		Non-Capstone (n=1295)	43.6%	-24.3%	47.3%	-21.0%	44.9%	-20.4%
Mixed	Female	Capstone (n=58)	86.4%	16.5%	75.9%	75.9%	77.6%	3.0%
		Non-Capstone (n=396)	73.4%	4.2%	69.4%	-1.5%	66.7%	-4.2%
	Male	Capstone (n=68)	90.9%	24.0%	72.1%	-2.5%	70.6%	-4.1%
		Non-Capstone (n=418)	50.4%	-17.5%	58.5%	-9.8%	55.5%	-9.8%
Other	Female	Capstone (n=26)	75.0%	5.2%	64.3%	64.3%	84.6%	10.0%
		Non-Capstone (n=171)	64.2%	-5.0%	57.8%	-13.1%	57.9%	-13.0%
	Male	Capstone (n=21)	75.0%	8.1%	52.9%	-21.7%	76.2%	1.5%
		Non-Capstone (n=115)	59.0%	-8.9%	54.1%	-14.1%	53.0%	-12.2%
White	Female	Capstone (n=755)	69.8%		77.1%		74.6%	
		Non-Capstone (n=4806)	69.3%		70.9%		70.9%	
	Male	Capstone (n=645)	66.9%		74.6%		74.7%	
		Non-Capstone (n=3955)	67.9%		68.3%		65.3%	

Attainment gap at department level (Appendix 1)

- 27 The attainment gap for BAME students is smaller in Capstone modules than non-Capstone modules for nine departments in 2018/19: Economics, Essex Business School, Government, Language and Linguistics, Law, Philosophy and Art History, Psychology, Sociology and Sport, Rehabilitation and Exercise Sciences.
- 28 The attainment gap for BAME students is larger in Capstone than non-Capstone modules for six departments in 2018/19: Computer Science and Electronic Engineering, Health and Social Care, History, Life Sciences, Literature, Film, and Theatre Studies, and Mathematics.
- 29 Three departments (East15, Edge Hotel School and Psychosocial and Psychoanalytic Studies) do not meet the minimum threshold of 10 students for Capstone modules.
- 30 Psychology consistently shows smaller attainment gaps for both Capstone and non-Capstone modules compared to other departments at -1.4% and -4.6% respectively in 2018/19.
- 31 Computer Science and Electronic Engineering, Economics, Essex Business School, Health and Social Care, Life sciences, Philosophy and Art History and Sport, Rehabilitation and Exercise Sciences show an attainment gap of greater than 10% for either Capstone or non-Capstone modules.
- 32 Computer Science and Electronic Engineering shows the greatest attainment gap for both Capstone and non-Capstone modules at -22.7% and -22.1% respectively in 2018/19. From 2016/17 to 2018/19 the attainment gap has increased by 21.9 percentage points to -22.7% for Capstone modules and 8.8 percentage points to -21.1% for non-Capstone modules.
- 33 Life Sciences consistently shows a wider attainment gap for Capstone modules than non-Capstone modules at -20.5% and -8.3% respectively in 2018/19.

Recommendations

- In the paper 'Decolonising the Curriculum' (submitted to the Education Committee) there is a proposed recommendation for all departments to undertake a curriculum review to decolonise their curriculum. The summary findings of this paper should be made available to departments to aid their reviews.
- As part of their curriculum review, departments should note the findings in this report and consider both capstone modules and non-capstone modules.
- Good practice should be sought from those departments where the award gap is low, including Psychology, LiFTS and Maths.

Stephanie Ruscillo, Planning and Data Insight Officer
September 2020

Appendix 1

Attainment gap at department level from 2016/17 to 2018/19.

		2016/17			2017/18			2018/19		
Department (n=number of BAME module registrations in 2018/19)		BAME	White	Attainment Gap	BAME	White	Attainment Gap	BAME	White	Attainment Gap
Computer Science and Electronic Engineering (School of)	Capstone (n=91)	66.7%	67.4%	-0.8%	64.7%	78.7%	-14.0%	57.1%	79.8%	-22.7%
	Non-Capstone (n=404)	49.3%	62.6%	-13.3%	46.2%	63.4%	-17.2%	42.2%	64.3%	-22.1%
East 15 Acting School		Minimum threshold of 10 students not met.								
Edge Hotel School		Minimum threshold of 10 students not met.								
Economics	Capstone (n=163)	81.6%	93.5%	-11.9%	90.4%	88.1%	2.4%	90.2%	97.5%	-7.3%
	Non-Capstone (n=1063)	50.3%	57.0%	-6.7%	58.7%	63.9%	-5.2%	53.3%	65.8%	-12.4%
Essex Business School	Capstone (n=391)	67.9%	87.5%	-19.6%	61.7%	74.7%	-12.9%	66.8%	77.0%	-10.3%
	Non-Capstone (n=2370)	51.0%	71.2%	-20.2%	50.5%	70.5%	-20.0%	52.9%	68.7%	-15.9%
Government	Capstone (n= 58)	Minimum threshold of 10 students not met.			77.1%	79.7%	-2.6%	79.3%	83.3%	-4.0%
	Non-Capstone (n=358)	Minimum threshold of 10 students not met.			53.6%	67.1%	-13.6%	57.5%	62.4%	-4.8%
Health and Social Care (School of)	Capstone (n=65)	Minimum threshold of 10 students not met.			Minimum threshold of 10 students not met.			53.8%	37.7%	16.1%
	Non-Capstone (n=260)	Minimum threshold of 10 students not met.			Minimum threshold of 10 students not met.			28.1%	41.4%	-13.3%
History	Capstone (n=22)	78.3%	71.9%	6.3%	28.6%	58.6%	-30.0%	63.6%	70.6%	-7.0%
	Non-Capstone (n=99)	71.0%	77.9%	-6.9%	38.5%	72.6%	-34.1%	62.6%	69.4%	-6.7%
Language and Linguistics	Capstone (n=11)	Minimum threshold of 10 students not met.			Minimum threshold of 10 students not met.			54.5%	63.3%	-8.8%
	Non-Capstone (n=122)	Minimum threshold of 10 students not met.			Minimum threshold of 10 students not met.			35.2%	61.3%	-26.1%
Law (School of)	Capstone (n=132)	Minimum threshold of 10 students not met.			67.9%	79.8%	-11.8%	67.4%	72.6%	-5.2%
	Non-Capstone (n=1128)	Minimum threshold of 10 students not met.			58.4%	70.2%	-11.8%	57.6%	67.4%	-9.7%
Life Sciences (School of)	Capstone (n=100)	79.1%	89.5%	-10.4%	75.3%	94.3%	-18.9%	72.0%	92.5%	-20.5%
	Non-Capstone (n=518)	62.4%	70.7%	-8.3%	62.8%	69.8%	-7.0%	58.3%	66.6%	-8.3%
Literature, Film, and Theatre Studies	Capstone (n=23)	Minimum threshold of 10 students not met.			76.5%	84.9%	-8.4%	95.7%	86.0%	9.6%
	Non-Capstone (n=99)	Minimum threshold of 10 students not met.			72.3%	79.9%	-7.6%	80.8%	81.7%	-0.9%
Mathematical Sciences	Capstone (n=19)	Minimum threshold of 10 students not met.			80.0%	66.7%	13.3%	68.4%	77.8%	-9.4%
	Non-Capstone (n=191)	Minimum threshold of 10 students not met.			48.3%	50.8%	-2.5%	51.8%	57.9%	-6.1%

Philosophy and Art History (School of)	Capstone (n=24)	Minimum threshold of 10 students not met.			75.0%	73.3%	1.7%	58.3%	72.9%	-14.5%
	Non-Capstone (n=216)				60.3%	78.2%	-17.9%	44.9%	66.3%	-21.3%
Psychology	Capstone (n=81)	87.3%	88.1%	-0.8%	84.3%	88.6%	-4.2%	84.0%	85.3%	-1.4%
	Non-Capstone (n=562)	78.4%	73.4%	4.9%	71.3%	69.1%	2.1%	66.7%	71.3%	-4.6%
Psychosocial and Psychoanalytic Studies		Minimum threshold of 10 students not met.								
Sociology	Capstone (n=45)	56.8%	66.3%	-9.5%	69.6%	79.7%	-10.1%	66.7%	71.8%	-5.1%
	Non-Capstone (n=164)	61.2%	76.8%	-15.6%	69.7%	85.0%	-15.3%	70.7%	79.1%	-8.4%
Sport, Rehabilitation and Exercise Sciences (School of)	Capstone (n=12)	Minimum threshold of 10 students not met.			58.1%	73.3%	-15.3%	50.0%	72.3%	-22.3%
	Non-Capstone (n=75)				58.9%	75.9%	-17.0%	40.0%	67.7%	-27.7%