

## LTC15D137

**Title:** Use of Grade Point Average (GPA) at UEA  
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### Issue

The Higher Education Academy (HEA) has recommended that HE institutions adopt the Grade Point Average score to be run in tandem with traditional degree classifications. This paper sets the arguments for and against the adoption of GPA.

### Recommendation

This is for information only; a recommendation is scheduled to come to LTC in July 2016.

### Resource Implications

There are no resource implications for the University associated with this update.

### Risk Implications

There are no risk implications associated with this update

### Equality and Diversity

There are no E&D implications associated with this update.

### Timing of decisions

n/a

### Further Information

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### Background

The grade point average (GPA) is a measure of student achievement which can be used both during and on completion of a programme of study. During a student's period of study on a course, the GPA can be calculated for all modules taken to date, and/or for the modules taken in each academic year. At the completion of their studies, the students would be given a GPA score based on all the modules taken as part of their course.

The Higher Education Academy (HEA) commissioned a programme of work to investigate whether a GPA system would be in the best interests of students to test whether it could:

- Provide greater granularity in reporting achievement;
- Encourage student engagement and effort throughout a course;

- Offer increased transparency in relation to how the award is calculated;
- Make students' achievements more comparable;
- Give students, employers and other stakeholders a simple and comprehensible record of achievement which is globally recognised;
- Be adopted nationally while recognising the autonomy of UK higher education providers in determining their award regulations.

A GPA system has two important elements. Firstly, the scale that is employed and secondly the 'methodology' that is used to create the GPA score for an individual student. The 'methodology' includes all the considerations, with the exception of the scale, which impact on the GPA calculation (for example any weighting or exit velocity arrangements, treatment of resit grades and condonment rules) and is the mean average of a student's performance over a group of modules (rather than for individual modules).

Further to the publication of the HEA's report on GPA pilots, which recommended the adoption of a GPA system to run in tandem with traditional higher degree classification (HDC), the University needs to consider whether to follow the recommendation and adopt GPA, and what scale and calculation would be used if it were adopted.

#### **HEA Pilot and its recommendations**

The Higher Education Academy facilitated a pilot to test the use of various GPA scales. The report of findings and recommendations was published in 2015.<sup>1</sup> A group of interested universities considered whether a common GPA system was a viable alternative to the honours degree classification (HDC) in place across the UK.

The providers participating in the pilot performed a retrospective data modelling exercise on 2012-3 student achievement outcomes using an agreed GPA scale. A further group of HEIs, including UEA, declared an interest in the GPA development and was kept informed of the progress of the pilot work. In addition, the HEA supported a wider programme of work, which involved working with key groups such as employers and Professional and Statutory Regulatory Bodies, to stimulate an informed debate about the potential use of a GPA system in the UK.

The HEA recommendations were:

1. A single GPA scale for UK higher education should be adopted by all UK providers
2. 'Dual running', during which both GPA and Higher Degree Classification (HDC) outcomes will be reported, should be introduced in the first instance. This should be followed by a national review of the adoption of GPA after a period of no more than five years. Institutions may opt to switch to GPA alone when and if they judge it appropriate.
3. Degree awarding bodies will need to exercise institutional discretion on a range of regulatory and policy matters associated with their GPA award system.
4. This is an additional piece of information that is independent of the HDC, and the rules governing HDC including year weightings and borderline considerations will be unaffected.

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<sup>1</sup> <https://www.heacademy.ac.uk/sites/default/files/resources/GPA-report-2013-14.pdf>

Table One: HEA Recommended GPA scale for UK Higher Education

Mark	Grade Point	Classification	Grade
>=75	4.25	I	A+
71-74	4.0	I	A
67-70	3.75	2 I (high)	A-
64-66	3.50	2 I (med)	B+
61-63	3.25	2 I (low)	B
57-60	3.0	2 ii (high)	B-
54-56	2.75	2 ii (med)	C+
50-53	2.50	2 ii (low)	C
48-49	2.25	3	C-
43-47	2.0	3	D+
40-42	1.50	3	D
38-39	1.0		D-
35-37	0.75		F+
30-34	0.5		F
<=29	0.0		F-

**The HEA considered the outcomes from the pilot, summarised below:**

- Increased granularity. In 2013-4 over 50% of classified degrees across the UK were awarded an upper second suggesting that this grade band disguises considerable variation in attainment. GPA may offer a ‘gradual slope’ rather than a ‘cliff edge’ for students and their potential employers. A GPA system with a cumulative score available as a student progresses through their programme could be particularly helpful to employers who begin their graduate recruitment process up to 15 months before the end of the degree.
- Encourages students’ motivation and engagement throughout a programme. This is especially the case if first year marks are included.
- International recognition and student mobility. The calculation of a GPA where a student’s score is a ‘straight average’ of all their individual marks has the potential to be particularly comprehensible to students, employers and other stakeholders.
- Potential to have increased transparency in how marks are translated into outcomes, compared to traditional HDC.

**Current direction of travel within the sector**

Subsequent to the publication of the HEA report, the higher education green paper ‘*Fulfilling our Potential: Teaching Excellence, Social Mobility and Student Choice*’<sup>2</sup>, 2015, in which GPA has significant mention, has been published.

Graham Gibbs, in the HEPI response to the Green Paper<sup>3</sup>, notes that current degree classifications provide very little discrimination between students and that Paragraph 41 of

<sup>2</sup> <https://www.gov.uk/government/consultations/higher-education-teaching-excellence-social-mobility-and-student-choice>

<sup>3</sup> [http://www.hepi.ac.uk/wp-content/uploads/2016/01/STRICTLY-EMBARGOED-UNTIL-7-JANUARY-2016-FINAL-GREEN-PAPER-RESPONSE-21\\_12\\_15-Screen.pdf](http://www.hepi.ac.uk/wp-content/uploads/2016/01/STRICTLY-EMBARGOED-UNTIL-7-JANUARY-2016-FINAL-GREEN-PAPER-RESPONSE-21_12_15-Screen.pdf)

the Green Paper recognises that GPA cannot solve grade inflation problems. Gibbs argues that if the proportion of students gaining 'good degrees' is to be used as a metric in the TEF, any hope of controlling grade inflation, increasing student engagement, or improving comparability would 'go out the window'. Allocating funds (or the ability to charge higher fees) based on student attainment will lead to a decline in standards.

This is one of the reasons why HEFCE is very interested in exploring the concept of 'Value-Added' – that is the overall improvement in a student's learning and performance. HEFCE has funded a number of research projects focused on measuring 'Learning Gain' and UEA is currently leading one of these projects. The UEA project focuses on three key measures of learning gain: 1) Concept Inventories 2) Self-Efficacy Assessments 3) Grade Point Average (or 'student marks'). The use of GPA (marks) data within the project will provide a useful point of comparison with the other measures of learning gain employed.

## **Discussion**

### **1. Modelling UEA results**

The BIU has analysed the results of the 2014/5 finalists on three year courses (Table Two). For HUM and SSF, Average '2' (which replicates current Bachelors and Integrated Masters degree weightings) produces the best GPA. For Health Sciences, a straight average, including year one, gives the best result, and in SCI weighting the years 10:30:60 gives the highest average GPA score. The extensive modelling undertaken as part of the New Academic Model considerations demonstrated that excluding year one and weighting years 2/3 40:60 gave the consistently best outcome in terms of degree classification (based on historical data pre 2014-5). However, this does not take into account any changes in behaviour that might be demonstrated should a GPA with a counting year one be adopted. In other words, students' behaviour may change if the goalposts move.

GPA weighting analysis by student profile are given in Appendix One. The data show that for some categories, a straight average results in a significantly lower GPA compared to weightings taking exit velocity into account. (This is particularly the case for male students, international students, disabled students and BME students. Widening Participating students don't appear to be as affected).

Further modelling could be undertaken to compare changes between HDC and GPA within degree classification boundaries across the University, if it would help inform the discussion.

**Table Two: GPA scores by School**

(Note: this information is a reduced analysis of 2014/5 UG first degree award population, keeping only students who obtained a stage 1, 2 and 3 mark, on 3 year programmes. New final averages are reweighted to give a new final average based on the year weightings, and then mapped to the HEA recommended scale<sup>4</sup>).

		GPA weighting analysis		headline by dept			
Faculty Code	Dept Code	count	Avg. 1.GPA - Straight	Avg. 2.GPA - yrs2&3 40:60	Avg. 3.GPA - yrs2&3 50:50	Avg. 4.GPA - yrs1&2&3 10:30:60	Avg. 5.GPA - yrs 1&2&3 10:40:50
FMH	HSC	263	3.82	3.77	3.77	3.78	3.78
	<b>Total</b>	263	3.82	3.77	3.77	3.78	3.78
HUM	AMA	90	3.21	3.30	3.30	3.29	3.29
	HIS	147	3.41	3.50	3.49	3.50	3.48
	LDC	207	3.42	3.52	3.50	3.50	3.49
	PPL	148	3.23	3.36	3.34	3.35	3.31
	<b>Total</b>	592	3.34	3.44	3.43	3.43	3.41
SCI	BIO	141	3.36	3.38	3.36	3.40	3.37
	CHE	23	2.70	2.67	2.70	2.71	2.71
	CMP	78	3.24	3.17	3.14	3.22	3.19
	ENV	66	3.22	3.24	3.24	3.23	3.23
	MTH	53	3.50	3.52	3.52	3.53	3.50
	NAT	12	3.48	3.42	3.35	3.44	3.42
	<b>Total</b>	373	3.29	3.29	3.28	3.31	3.29
SSF	DEV	61	3.31	3.39	3.38	3.38	3.37
	ECO	155	3.20	3.33	3.32	3.30	3.30
	EDU	78	3.15	3.26	3.27	3.23	3.24
	LAW	104	3.10	3.18	3.17	3.19	3.17
	NBS	185	3.35	3.46	3.42	3.44	3.42
	PSY	104	3.36	3.39	3.38	3.40	3.38
	SWK	14	3.07	3.16	3.13	3.14	3.14
	<b>Total</b>	701	3.25	3.34	3.33	3.33	3.32
<b>Grand Total</b>		1,929	3.36	3.42	3.41	3.42	3.41

If the University chooses to introduce GPA, a number of decisions about how it would be calculated would need to be taken. The main one would be whether to adopt a weighting which replicated our current HDC weighting, or go for a simple straight average of all years, or something in between.

**Year one marks.** The majority of pilot institutions did not favour the inclusion of year one marks in a GPA, either because they wished to preserve a transition year or they thought it could discourage students from engaging in extracurricular activities. However, where the first year counted, there was a small, but statistically significant, increase in attainment at year one. The majority view within the Taught Programmes Policy Group was for year one marks not to count.

<sup>4</sup> For every module mark, a grade point would be given, as per the HEA scale, based on the percentage mark awarded. This grade point, at module level, would be one of the 15 points on the scale. However, the overall average would be an average of all the module grade point, weighted according to credit value, and at that point the scale becomes linear ie scores in-between the 15 points could be attained.

**Exit velocity and weighting of different years/levels.** Over two thirds of those involved in the pilot stated they wished to retain exit velocity of some kind, to recognise students' developed skills and attainment in the latter stages of their course. If GPA were to replace HDC, providers were keen to retain their existing patterns of weighting.

How UEA chooses to calculate GPA scores rather depends on the aim of the introduction of GPA. For example, if the University's aim in adopting GPA was to provide greater granularity and avoid the cliff edges of the current scheme, then we could just replicate the algorithms we use in BIM for HDC. However, if the aim is to improve engagement and effort throughout a student's degree and provide greater transparency and comparability to students and employers, then a 'straight average' of all marks across all years might be better (noting those groups of students who would currently underperform). A 'halfway house' between the two, where only years 2 and 3 counted, but these marks were straight averages (no exit velocity applied) would risk not helping with the transparency, comparability and granularity, and may add to the confusion. We know from the analysis of performance carried out for the New Academic Model implementation that 40:60 gives the consistently highest outcome across the University.

#### **Option One: Straight Average (of all years)**

- Offer increased transparency in relation to how the award is calculated;
- Make students' achievements more comparable;
- Give students, employers and other stakeholders a simple and comprehensible record of achievement which is globally recognised;
- Encourage student engagement and effort throughout a course

#### **Option Two: Replication of current degree weightings**

- Provide greater granularity in reporting achievement (but doesn't change the achievement);
- Be adopted nationally while recognising the autonomy of UK higher education providers in determining their award regulations.

## **2. Implementation considerations**

**Dual running.** Whether or not a 'straight average' approach is adopted (which would be complementary to HDC), running both GPA and HDC would help in the understanding and acceptance of GPA. It would have the potential to offer students two alternative measures of achievement and we would be in a good position should GPA be more widely adopted across the UK, and recognised by employers.

**Institutional regulations, extenuating circumstances, progression, condonement, compensation and resit arrangements and transfer of credit and study abroad arrangements.** The effect of introducing GPA on these was found by the HEA study to be institution-specific and dependent on current regulations and policies. For UEA, with our 'pass all modules' and extenuation considered at module level, plus the move to pass/fail for study abroad, any change to regulations would be minimal. We would have to decide whether only

the confirmed final module mark contributed to the GPA, or whether all attempts did and whether the uncapped or capped reassessment mark contributed.

**Role of the examination board** Again, with UEA's regulations, the Board of Examiners has a significant role in assuring and maintaining standards, and has already moved away from considering individual students on a case by case basis.

### **Student record systems**

- a) If we chose to go with the 'Option One (straight average of all modules)' approach, which has the advantage of showing students their GPA 'to date', we would have to purchase the GPA component from Tribal to use in SITS.

Costs would be in the order of:

Software purchase £12,240

Annual maintenance £2,448

Consultancy for implementation: £2,700

In addition, there would be internal resource required to implement the changes to the system, and time needed to fit it into the programme of work. We would not be able to implement this in time for academic year 2016/7.

- b) If we went with 'Option Two' (replication of weightings used in degree classification), and simply translated the obtained classification mark to a GPA score, we could probably do that internally with minimum cost. {However, as demonstrated in Appendix Two, the GPA will differ from the calculated GPA if we take each module mark, convert it to GPA and then weighted each year. It comes down to whether it would be more helpful for students to get one of the 15 points on the GPA scale (which are not any more granular than 0.25), or whether there is an expectation that students could get GPA scores between the points, and whether there would be any significance read into these differences (we could always round to the nearest GPA point)}.

### **Notification of results**

If we went with Option One the expectation would be that the GPA would be available to students as they progressed through their course. We would need to decide whether unconfirmed marks would contribute to a provisional GPA, or only confirmed marks.

For either option, we would need to confirm that the final GPA score would be displayed on the HEAR (or transcript) and/or the degree parchment. This would involve a bit of IT systems development time, too.

### **3. Option of 'doing nothing'**

With the introduction of the Higher Education Achievement Report (HEAR) which will be available to undergraduates from next year, all students, and potentially employers, will have online access to their academic record (and the HEAR will include verified extracurricular achievements too). Arguably, the percentage marks, along with the classification of the degree, and the classification mark (under consideration to be included on the HEAR) would give enough detail to employers to differentiate between applicants. We would not be out of line with the majority of our competitors, but without adopting GPA may miss out on TEF points.

#### **4. Risks associated with adoption**

- Potential increase the number of appeals. (This could be mitigated by choosing a simple, transparent method of calculation).
- As an early adopter, we may need to review our policy in line with the sector so we were not disadvantaging our students.

#### **Recommendation likely to be made to LTC in July**

To adopt a GPA system where (subject to the technical ability/timeframe):

1. The scale recommended by HEA is used.
2. The GPA is calculated based on Option Two, replication of the degree classification.
3. There is dual running alongside the Higher Degree Classification
4. Both GPA and classification appear on the Higher Education Achievement Record (HEAR) but only the HDC appears on the parchment
5. A review takes place after 5 years of graduates obtaining both awards, in particular to look at the continuation of the HDC and whether to include GPA on the parchment.
6. Bring it in for first years starting in 2016/7 but, as it would only be awarded at the end of the degree, it would not need to be physically in place until the end of 2018/9.