# Improving Student Outcomes Through Student-Led Formative Assessment

Nottingham Trent University

# **Neil Radford**

Department of Criminology and Criminal Justice, School of Social Sciences, Nottingham Trent University

#### **INTRODUCTION**

The outcome grades on a BA undergraduate module were analysed over the five-year period of 2016 to 2021. Whilst a slow improvement was noted over the period, the percentages of students achieving a first or strong upper second (University of Oxford 2022) remained below the sector average (Office for Students 2022).

This research examined the introduction of a new style of formative assessment for the academic year 2021-22, designed to improve student-led learning (Smith 2017) and grade outcomes through inclusive assessment (Tai, Ajjawi & Umarova 2021).

#### LITERATURE REVIEW

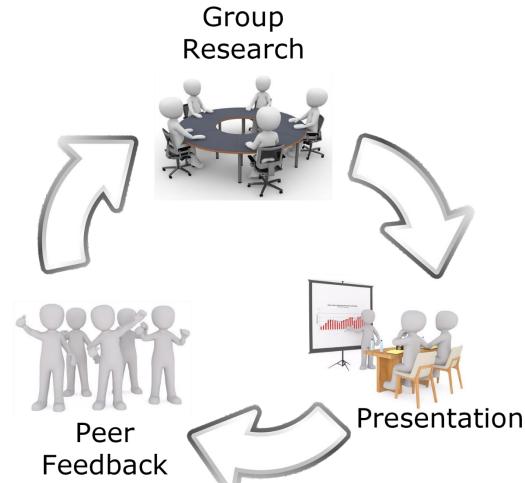
In their seminal paper, Black and Dylan (1998) identified a link between feedback as part of formative assessment and substantial learning gains for the students. The author's (2018) later develop their argument through regarding formative assessment as an essential component of the learning process as part of pedagogy.

In building on this, formative assessment should challenge students to maximize their use of assessment feedback skills for both immediate and longer-term learning gains (Evans and Waring 2020, p1) emphasising the student role in formative assessment. Carnell (2016) describes the benefits of formative peer-assessment in developing the ability to receive and provide critical feedback essential to lifelong learning and development.

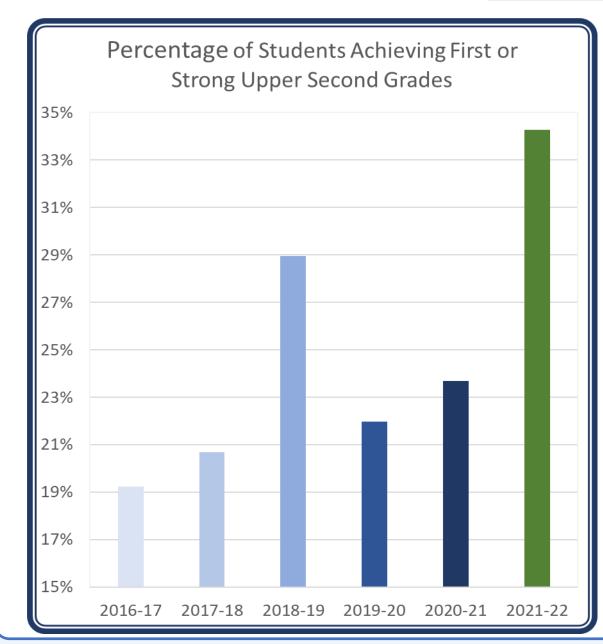
Improved inclusivity and learning through interactive groups has been shown to lead to improved outcomes for a range of students (Zubiri-Esnaola et al 2020).

#### THE NEW FORMATIVE ASSESSMENT

- The cohort of 595 students were divided into 15 workshop classes.
- Within each workshop, the students were further divided into 5 groups, where each group was provided with one of five mock assessment questions.
- The groups were tasked with working together to prepare an essay plan for their given question to include an interpretation of the question, a draft introduction, bullet points of their main points, a draft conclusion, and a correctly formatted reference list. The division of the workload was left to the students to plan.
- Over 5 consecutive weeks each group presented their essay plan by way of PowerPoint to the rest of their workshop class.
- Following each presentation, the remaining students in the workshop gave feedback to the presenting group (facilitated by the tutor), designed to ensure that all students learnt and benefited from the presentation.
- Over the 5 weeks each group learned from the previous groups and improved on their essay plans based on the student feedback.
- This informed the following week's presentation (with a different mock assessment question).



### **ANALYSIS and RESULTS**



The data of student outcomes was obtained following examination board decisions of final grades for the module each year.

The graph shows the percentage of students achieving a first or strong upper second class grading (University of Oxford 2022) for this module as their final grade in the summative assessment.

The mean ( $\mu$ ) percentage value for the five-year period 2016-2021 was 22.90% with a standard deviation ( $\sigma$ ) of 3.75%. The percentage value for 2021-22 was 34.29%.

Using a Vysochanskij–Petunin inequality of  $\mu+3\sigma$  (Pukelsheim 1994) this is a statistically significant increase (p<0.003).

#### **CONCLUSIONS**

This research has shown promising improvements in student outcomes on an undergraduate module through the use of a new style of formative assessment.

As this research lacked a control group and the statistical conclusions are based on a relatively small group on one university programme, this outcome should be tested further. As such, this research is ongoing and will be continued over future cohorts across different modules to look for consistency and improvements.

#### **REFERENCES**

Black, P. and Wiliam, D., 1998. Assessment and classroom learning. *Assessment in Education: principles, policy & practice*, *5*(1), pp.7-74.

Black, P. and Wiliam, D., 2018. Classroom assessment and pedagogy. *Assessment in education: Principles, policy & practice*, 25(6), pp.551-575.

Carnell, B., 2016. Aiming for autonomy: formative peer assessment in a final-year undergraduate course. *Assessment & Evaluation in Higher Education*, 41(8), pp.1269-1283.

Evans, C. and Waring, M., 2020. Enhancing students' assessment feedback skills within higher education. In *Oxford Research Encyclopedia of Education*. Oxford: Oxford University Press

Office for Students, 2022. *Analysis of degree classifications over time*. London: Office for Students.

Pukelsheim, F., 1994. The three sigma rule. *The American Statistician*, 48(2), pp.88-91.

Smith, C.E., 2017. The flipped classroom: Benefits of student-led learning. *Nursing*, 47(4), pp.20-22.

Tai, J., Ajjawi, R. and Umarova, A., 2021. How do students experience inclusive assessment? A critical review of contemporary literature. *International Journal of Inclusive Education*, pp.1-18.

University of Oxford, 2022. What does Oxford mean by a first-class or strong upper-second-class undergraduate degree with honours? Oxford: University of Oxford.

Zubiri-Esnaola, H., Vidu, A., Rios-Gonzalez, O. and Morla-Folch, T., 2020. Inclusivity, participation and collaboration: Learning in interactive groups. *Educational Research*, 62(2), pp.162-180.

## **CONTACT DETAILS**

Dr Neil Radford

Nottingham Trent University

Email: neil.radford@ntu.ac.uk

**Telephone**: (+44) 0115 8482552

Please scan to leave feedback:



RESEARCH POSTER PRESENTATION DESIGN © 2019