A REVIEW OF ASSESSMENT METHODS IN HIGHER EDUCATION

Introduction

The school assessment experience is failing to prepare students for higher education adequately. Whilst schools are forced to build much of their curriculum and pedagogy around terminal, timed assessments, universities have been making ever more use of multi-modal assessment. This is in part a response to the challenges and opportunities of AI[1], but also reflects a commitment to holistic skills development within domains. It is not a coincidence that students who undertake EPQs perform better at undergraduate level[2].

Schools need to prepare our young people for the rich variety of tasks on which their degrees will be judged, and which more accurately reflect the tasks graduates will be faced with in the workplace.

There has been no systematic data collection in this area, and The King Alfred School Society (KASS) and Rethinking Assessment felt it was an important and under-utilised part of the argument for change at school level, so commissioned research to establish the Higher Education assessment landscape.

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1 UCL, for example, have published this thoughtful guide to AI friendly assessment: *https://www.ucl.ac.uk/teaching-learning/generative-ai-hub/designing-assessments-ai-enabled-world*

2 https://www.cambridgeassessment.org.uk/blogs/students-taking-an-epq-have-better-higher-education-outcomes/

Methodology

We analysed 240 undergraduate degrees representing 12 of the most popular subjects and subject categories by number of students enrolled.

Twenty courses for each subject were selected from within the top 50 Guardian subject rankings (excluding universities that did not provide detailed breakdowns of assessment types on their websites). The research analysed a range of degrees from Russell Group (53%), non-Russell Group (47%), and Oxbridge (7.5%) universities.

Data on the most popular degree courses was retrieved from the Higher Education Statistics Agency. Twelve subjects were selected to represent the most popular full-time, undergraduate subjects and subject categories. Where a subject category was given, a representative subject was selected e.g. Mechanical Engineering was selected to represent the Engineering and Technology category and Music was selected to represent Design, and Creative and Performing Arts.

Data on assessment types was collected from the universities' websites and module catalogues.

SECTION 1

COURSEWORK, TRADITIONAL EXAMS, & PRACTICAL SKILL

We found that not a single undergraduate degree course used only exams as a means to assess students.

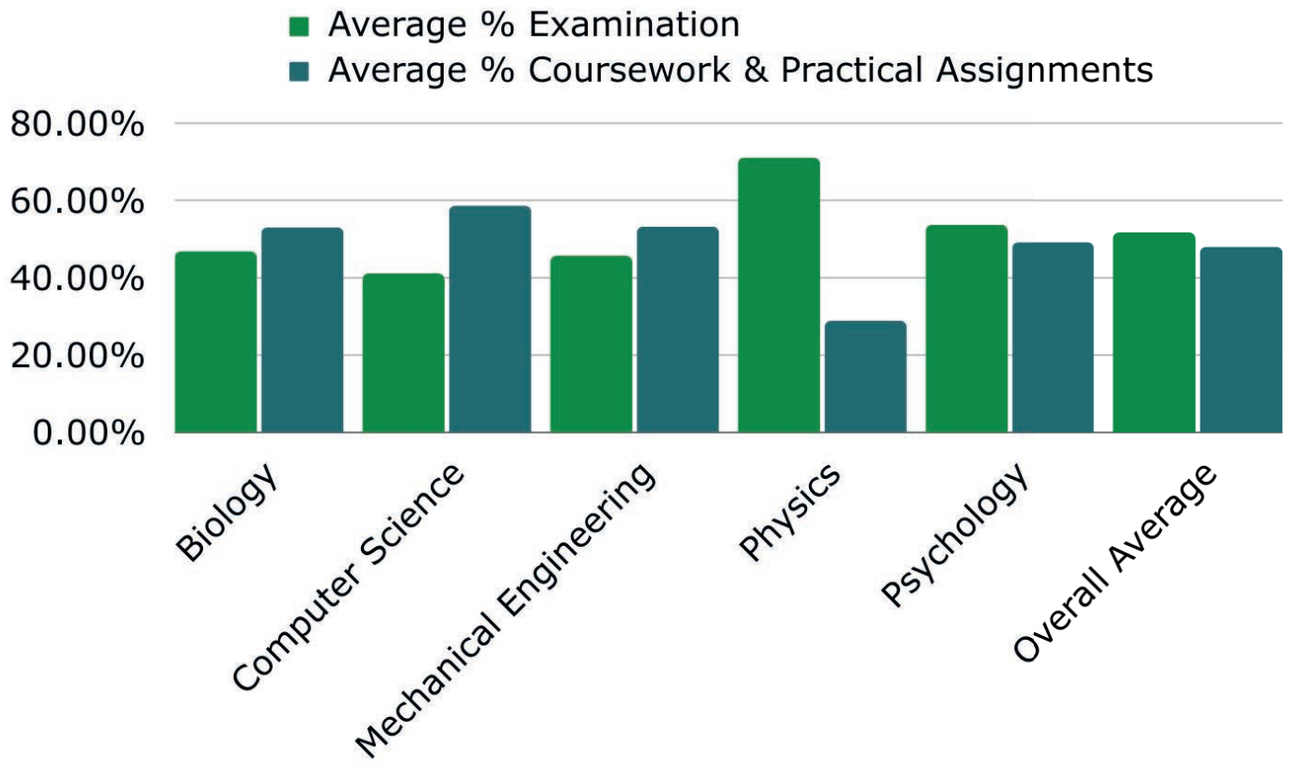
The vast majority of courses in science, social science, humanities, and arts subjects used a combination of coursework, traditional exams, and practical assignments.

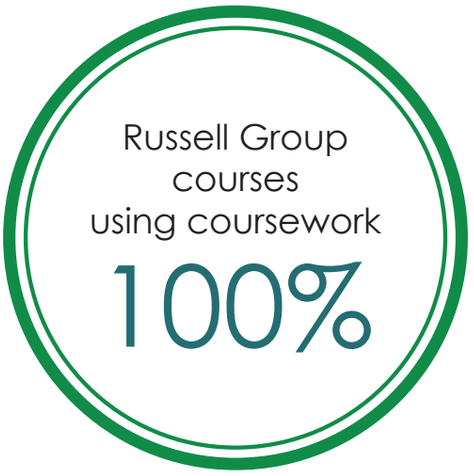
Coursework and/or project work usually constituted a substantial portion of each student's degree.

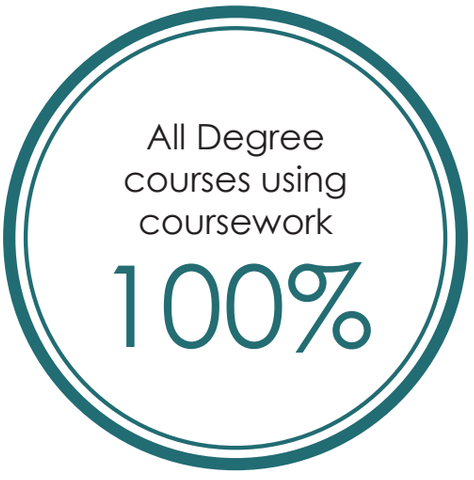
The research found, for example:

- Physics degrees: coursework and practical skills made up an average of 28.9% of a student's final result
- Computer Science: practical assignments and coursework made up an average of 58.6% of assessment
- Mechanical Engineering degrees: coursework and practical assignments made up an average of 53.2% of assessment.

Balance of Examinations, Coursework, & Practical Assignments







Coursework[1] featured in all courses. Exams meanwhile, featured in most courses but not all. For example, 15% of History courses and 40% of Music courses did not use any traditional examinations. There were also a number of courses that excluded traditional examinations in the final year of study. All fields included assignments that assessed students' practical skills[2] and used subject-specific practical assignments.

1 Coursework examples: traditional academic essays (86.7%), reports (62.5%), written reflections (29.1%), literature reviews (14.6%), and blog posts (13.3%).

2 Practical skills examples: oral presentations (76.7%), creating posters (18.7%), poster presentations (14.6%), online or in-person participation and engagement (17.5%), and role plays (17.5%), laboratory assignments, computer programming projects, and mock trials.

SECTION 2

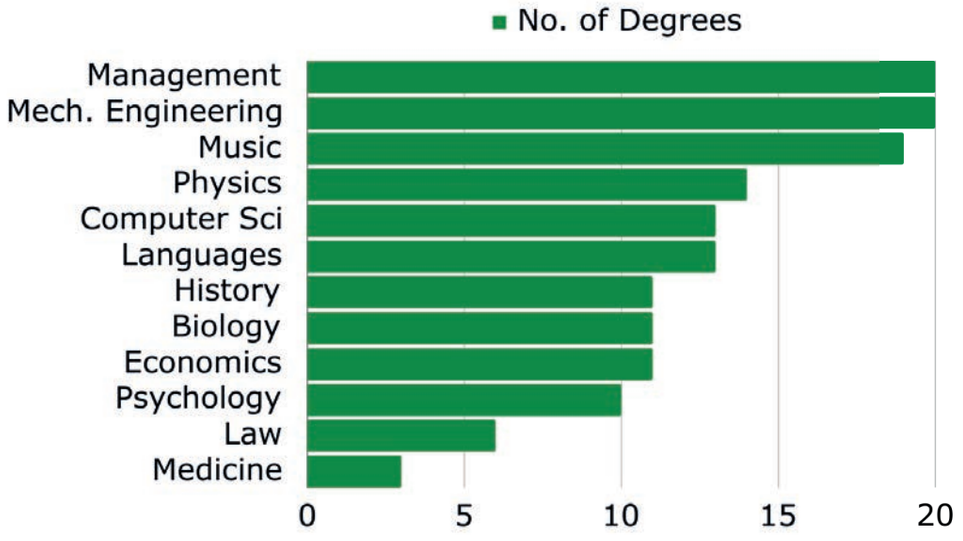
NON-TRADITIONAL METHODS OF ASSESSMENT

We found that so called 'non-traditional' methods of assessment were very common across subjects and universities.

GROUP WORK

62.9% of all degrees and 57.6% of Russell Group degrees assessed students through collaborative projects or presentations. In addition to group work, other degrees used peer assessments. Group assignments were used across all subjects to different extents.

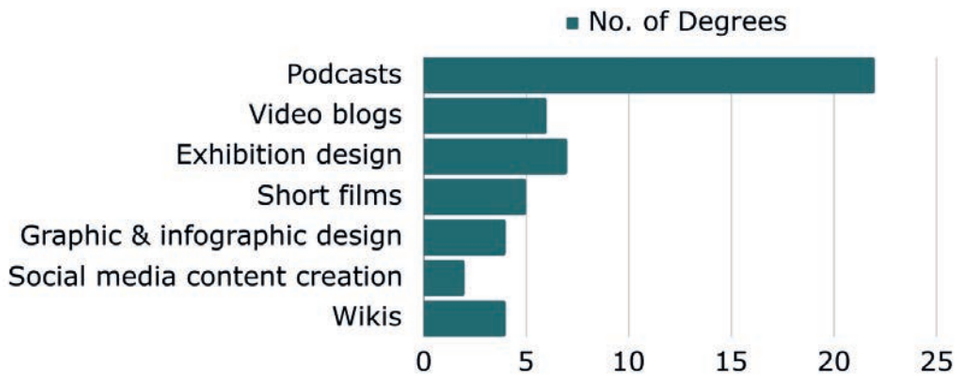
Group Work Assignments across Degree Subjects



CREATIVE PROJECTS

25% of degrees included an element where students' ability to work using a creative medium was assessed. Notably, this was across all subjects researched, other than Computer Science.

Types of Creative Assignments used in Degrees



INDUSTRY-RELATED ASSIGNMENTS

Students were assessed using assignments related to specific industries outside of academia, such as the creation of business plans and models, and working on real-life business-related projects with external organisations; the creation of teaching materials and participation in teaching placements; science communications projects, including written projects such as popular science articles; multimedia projects involving graphics; and the design, delivery, and/or evaluation of public engagement events.

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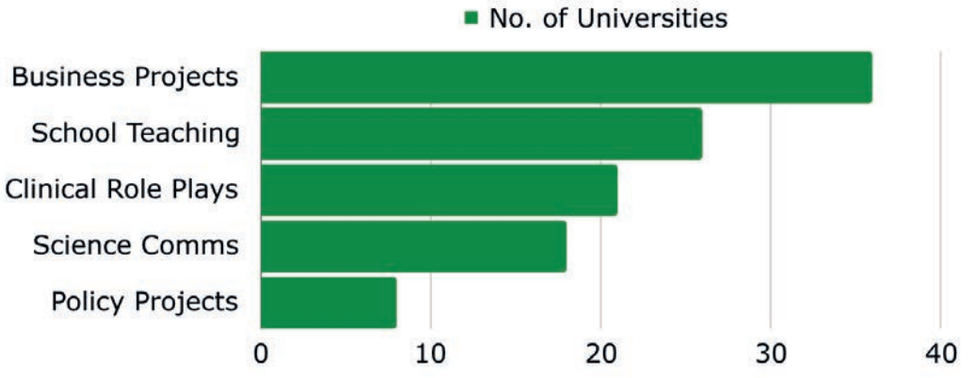

PROFESSIONAL SKILLS & WORK PLACEMENTS

A selection of courses assessed students in professional skills. This included professional development planning, career planning, job applications, LinkedIn profile assignments, and CV skills. Outside of sandwich placement years, other degrees assessed work or volunteering placements, typically evaluated through reports, reflective written pieces, presentations, and assessment of practical skills.

Courses assessing students in professional skills

6.6%

Courses assessing students' work or volunteering placements

20.4%

SECTION 3

SUBJECT SPECIFIC PRACTICAL ASSIGNMENTS

We also found that across degree subjects, universities assessed students on a wide range of subject-specific, practical and technical skills.

HISTORY

In History degrees, subject-specific skills assessments included source analysis coursework, source analysis exams, and document analysis and commentary.

MANAGEMENT & BUSINESS SKILLS

95% of Management degrees assessed students through an extended business-related project. Other assignments included elevator and investor pitches, start up slide decks, a written press release and a written statement to media and shareholders, and a mock press conference Q&A.

MODERN LANGUAGES

Practical skills ranged from oral examinations, to translation assignments, interpretations and sight translations, role plays, and subtitling.

LAW

Law degrees used a range of practical assignments including mock trials or moots, oral advocacy exams, negotiation exercises, a law reform proposal, legal advice assignments, case presentations, and legal clinic placements, involving undertaking legal work on behalf of members of the public.

MEDICINE

All Medicine degrees assessed students' practical, clinical skills through role play (Clinical Competency Assessments) and through workplace based assessments (including Direct Observation of Procedural Skills), Mini-Clinical Evaluation Exercises, and Case-Based Discussions.

MUSIC

All Music degrees implemented practical assignments including performance, composition, transcription and notation, arrangement, sound recording, songwriting, aural assessments, and production. 10% included public engagement projects such as organising a charity concert, music competition, or outdoor musical.

PSYCHOLOGY

Psychology degrees adopted a range of assignments including essays, reports, laboratory reports, and science communications projects. Psychology-specific assessments included intervention design, care plans, and demonstrations of clinical psychology skills.

SCIENCES: APPLIED

All Computer Science degrees assessed through programming, testing software, ethical hacking, game design, robotics, cryptology, computer graphics, user interface and experience design. All Mechanical Engineering degrees assessed practical computing skills including design, modelling, simulation, and computer programming. Other practical skills assessed included prototyping and laboratory assignments.

SCIENCES: NATURAL

All Biology and Physics degrees used traditional exams, written coursework and assessed practical skills (laboratory skills). All Physics degrees assessed students' computational physics skills through project work. In Biology courses, other assessments included fieldwork reports, attendance, and/or research, and computational skills.

Acknowledgements, Wider Reading & Resources

We are grateful to Kara Conti, President of The King Alfred School Society, for commissioning this work, and to Kezia Lobatto for compiling and synthesising the data.

This paper merely represents an overview. You can access the data in full using the QR codes on this page.

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Higher Education Case Studies

Higher Education Assessment Methods Database Sheet


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