

Arguments for and against 'high-stakes' exams: The evidence for using them doesn't stack up

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Across Australia, students are receiving and digesting important exam results. University students began receiving their semester 2 results at the end of November. This week and early next week, Year 12 students are also receiving their final marks.

Love them or loathe them, [exams have featured prominently](#) in education for [centuries](#).

For almost as long, debate has raged about whether they are useful for assessing learning. And while there has been a [shift](#) towards course work or other forms of assessments in some contexts, exams are still a major part of the way we assess [student learning](#).

To understand why exams remain so heavily favored, we [reviewed](#) the arguments for and against their use in [higher education](#). We found surprisingly little hard evidence to justify their widespread use in university assessment.

Our study

We focused on "high-stakes" [final exams](#) (heavily-weighted, end-of-semester exams that "make-or-break" passing a subject), because they are so widely used.

Traditionally undertaken in large [exam](#) halls under strict supervision, they can have immense influence on students' lives and careers.

We searched the higher education literature for research showing benefits or drawbacks of high-stakes final examinations. We found 122 relevant papers, written in English and published before July 2023.

Across these papers, seven key themes emerged.

1. Knowledge retention

It has long been [claimed](#) tests help students consolidate knowledge.

But because exams tend to encourage "cramming" of large amounts of information in a short period, the retention of that "knowledge" is famously short-lived.

Testing [can enhance learning](#) when students need to remember a lot of facts. But research shows regular short-answer tests undertaken shortly after learning are far more effective for this than one big exam at the end of the learning process.

2. Motivation and learning

High-stakes exams can certainly motivate students to study and prepare. But [evidence suggests](#) exams tend not to help students' learning because they activate "extrinsic motivation" (the desire to achieve a high grade) rather than "intrinsic motivation" (the desire for deep understanding).

This has a doubly perverse effect on learning: it encourages students to adopt superficial, "surface" learning strategies such as memorisation, while teachers often narrow the content they teach to what can be assessed in the exam.

3. Real-world relevance

Some argue the information-restricted, time-pressured nature of exams mirrors real-life (nobody wants their doctor or pilot to be leafing through the manual in a crisis situation).

But for the vast majority of modern roles and workplaces, closed-book

individual examinations are a far cry from the collaborative, information-rich context in which students will work.

They're particularly ill-suited to assessing skills like listening and communication, which are [highly valued by employers](#). And because there is typically no opportunity to receive or respond to feedback on an exam, it's hard for students to learn from their mistakes and do better.

4. Validity and reliability

One might assume because high-stakes exams are so important for final grades, they are carefully validated and reliably measure a [student's](#) ability.

Regrettably, neither is true. [Validation](#) of the design of high-stakes examinations (a complex process that ensures we can trust the inferences we make from them) is neither required nor routinely undertaken in university courses.

Exam performance is also notoriously [unreliable](#), susceptible to bias and inconsistency from examiners, the psychological or physical health of the student, the design of the exam and even the conditions under which the exam is taken.

5. Contract cheating and assessment security

There's a widespread belief that because exams occur in tightly controlled environments and require ID, they're impervious to cheating. This belief is spurring calls for even greater use of traditional exams in the wake of anxiety about generative AI.

But surveys of tens of thousands of [university students](#) in [Australia](#) and

[overseas](#) reveal students cheat more often in examinations than they do in any other form of assessment, using strategies such as [impersonation](#).

As the authors of a [2018 Australian report](#) conclude: "examinations provide universities and accrediting bodies with a false sense of security" and "an overreliance on examinations, without a thorough and comprehensive approach to integrity, is likely to lead to more cheating, not less."

6. Anxiety and well-being

Research [shows](#) students find exams stressful and this can harm their health and well-being. But whether stress affects exam performance is less clear.

Some studies have found [negative effects of stress on performance](#), while others found [no effect](#) or even suggest stress is helpful for improving performance.

Although the jury is still out, the adverse effects of examinations on student mental and physical health is concerning, as is the negative impact of examination anxiety on [student motivation](#).

7. Fairness and equity

It's well known exams favor students who perform well under [time pressure](#) and are good at memorizing. But there is also growing evidence the exams may [promote gender inequality](#) (with women performing worse than men in exams but better in non-exam assessments).

Another way in which exams can contribute to inequity is through their content (which often promotes Western values and knowledge) and their

(often hand-) written format. This disadvantages minority students, including [Indigenous](#) students, those from less privileged socio-economic backgrounds, or those who have a [disability](#).

Common "Band-Aid" accommodations, such as allowing extra time, do little to address this problem and contribute to feelings of inadequacy. We need to draw on what is known about [inclusive assessment design](#) to ensure diverse students are given equal opportunity to succeed.

Where to from here?

In the absence of compelling educational reasons for using high-stakes final exams, it seems they are used because they are cheap and efficient to deliver and grade, as well as easily scalable to large numbers of [students](#).

These justifications seem inadequate when we know there are alternative and more [authentic](#) forms of assessment that are also cost-effective, with the aid of [educational technology](#). These include [inquiry](#) (using investigation and problem-solving), group or peer-based assessments.

Without compelling academic reasons for retaining them, we need to consider new and potentially more meaningful forms of assessment by [replacing, re-weighting or redesigning](#) high-stakes exams.

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