Low-stakes failure as a method to improve learner agency and resilience

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In recent years and prior to the COVID-19 pandemic, the UK higher education sector has paid closer attention to addressing students' mental wellbeing. Young people in the UK are reporting record-low levels of mental health, with university students reporting a disproportionately lower sense of personal wellbeing than the wider population. At the same time, Higher Education institutions are experiencing an engagement crisis, with over a quarter of students not attending any in person teaching. Poor student wellbeing and low engagement are almost certainly linked. Young people are navigating one of the most turbulent periods in living memory. And at university we expect our students to not just survive this turbulence, but to thrive. To thrive in the volatility of the next 20 years, helping our students learn resilience and capabilities is as important as disciplinary knowledge.

Engaging, upskilling and learning require motivation. Poor mental health can be a significant demotivator, preventing students from being able to maximise opportunities. University life brings many opportunities to try something new, and many of these new activities require experimentation. When experimenting or trying something new it is not unusual for this to lead to failure. We even have centuries-old proverbs telling us to "try, try, again", and we know the combination of experiential learning and learning through failure can result in deeper learning. However, the expectation and fear of failure is a significant barrier to learning for students. Failure can lead to feelings of disappointment, embarrassment, shame and can exacerbate a myriad of mental health conditions. Consequently, when supporting the learning of young people, there is often a desire to protect them from failure. But when experienced within a safe, secure and supportive environment, failure can result in personal growth, active learning, strengthening connections between peers and lead to greater self-efficacy; all key skills that will help students to thrive. Maybe we need to encourage low-stakes failure as a means of promoting personal growth and active learning for our students. Given the low mental health of students, activities which can lead to feelings of failure need to be well thought-out to ensure that the positives outweigh any potential negatives. This year, we have attempted to do this, by creating space for low-stakes failure within our Foundation Year laboratory practicals, with promising results.

In semester 1 of the 2021/22 academic year, we noticed a few unusual things about our student cohort. Firstly, they were not building peer connections, their peer networks were almost non-existent. Secondly, they had hardly any learner agency and struggled to fill in the gaps within a set of simple instructions, and this was particularly noticeable in the laboratory. If the experimental protocol didn't explicitly tell them to do something, they didn't do it. They needed precise, explicit instructions and more so than any previous intakes we'd seen (who were given the same instructions). Moreover, within this "panic", the students were not thinking about the science. Thirdly, levels of anxiety about "getting something wrong" were higher than we could recall from previous years. Given the disruption to education for most of these students, none of this was surprising. But students need to learn how to cope and work through these feelings if they are to thrive in their degree programme and beyond. We developed a plan to help our students address these three areas subtly and with support.

Low stakes failure within an education setting is perhaps most typically thought of as offering formative tests, that is, tests which don't carry any marks and are intended for feedback or progress checking. If students engage with the test and under-perform, there are no consequences other than how it might make them feel. Our approach to low-stakes failure didn't involve any form of testing.

Likewise, as lecturers, we are often focused on disciplinary knowledge as the end point, with soft skills integral, but often an afterthought. We wanted to reverse this relationship - activate and centre the soft skills, understanding them via the discipline. Specifically, we had a simple aim: to get the students working together to devise their own rigorous experiment and once they had the results, to reflect on how it had gone. After reviewing their results, the students told us that they wanted a second chance to "do better". So the following semester, they had an opportunity to repeat the experiment, and we led workshops to help them reflect on the whole process.

[We know that students with](#) below average mental health are almost twice as likely to feel that they don't belong at university and are less confident in their abilities compared to those with reporting 'better' mental health. Offering opportunities for students to work together and build peer connections can help to encourage a feeling of belonging and is advocated by the [University Mental Health Charter Programme](#). When combined with activities such as low-stakes failure this may strengthen confidence and improve attainment because education (and life!) is about exploration, discovery and experimentation. If we can help our students to see that failure is key to learning then perhaps they will be better prepared for today's turbulent world.

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