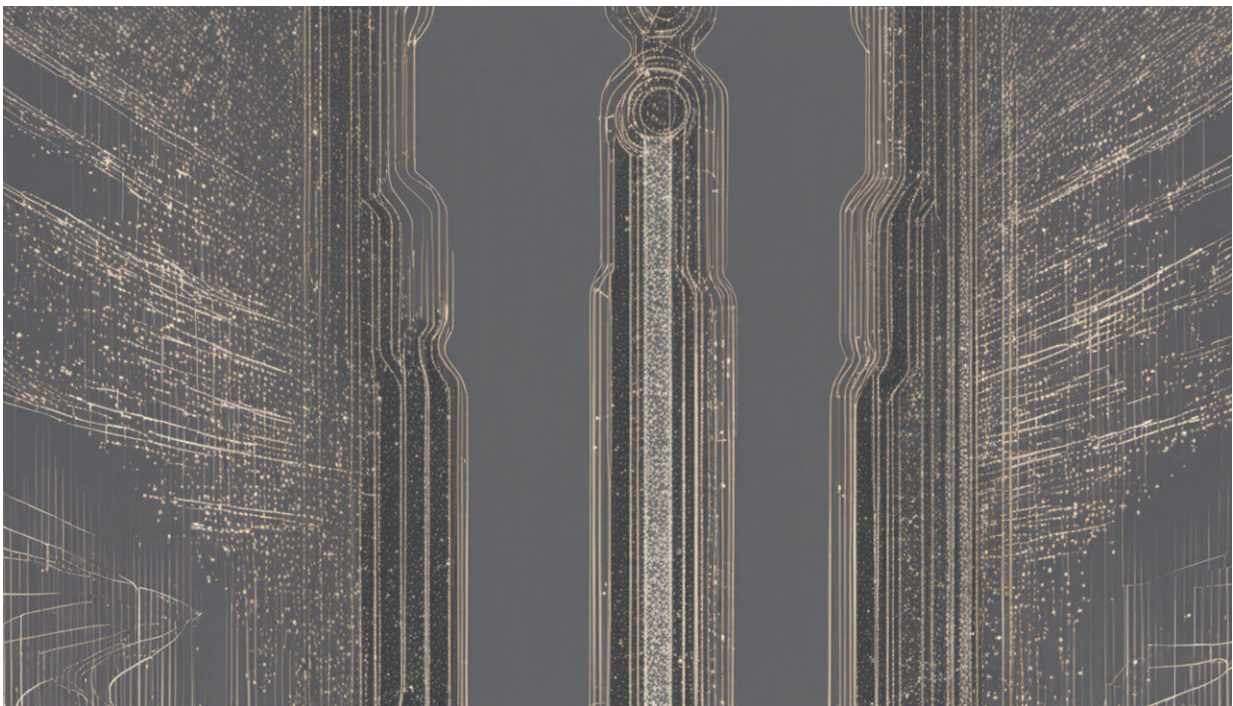


Keen IT students can improve their marks when given a chance to learn from their mistakes

September 12 2019, by Muneera Bano



Credit: AI-generated image ([disclaimer](#))

From a very young age, we are conditioned to learn to succeed by avoiding failures or mistakes.

Our traditional education system is built largely on examination that

marks down students for their mistakes in any assessed work. Students don't often get a chance to have those mistakes highlighted early on so they can correct them before any final assessment.

But in [research published this month](#) we show how we used the mistakes information technology students make to help them learn and improve their marks in assessment, if they were keen to do so.

How to embrace mistakes

[Mistakes can be valuable learning opportunities](#) that help us all to improve ourselves.

In our curriculum design, we should shift the focus from penalizing the mistakes students make, to how well they can learn from and improve upon their mistakes.

In our [study](#) we experimented by formally embracing mistakes made by IT students at University of Technology Sydney. We turned their mistakes into an [educational resource](#) to help them improve their communication and interpersonal skills.

There is a [lack of resources](#) for teachers of IT to show students how to effectively conduct interviews with clients or potential business customers.

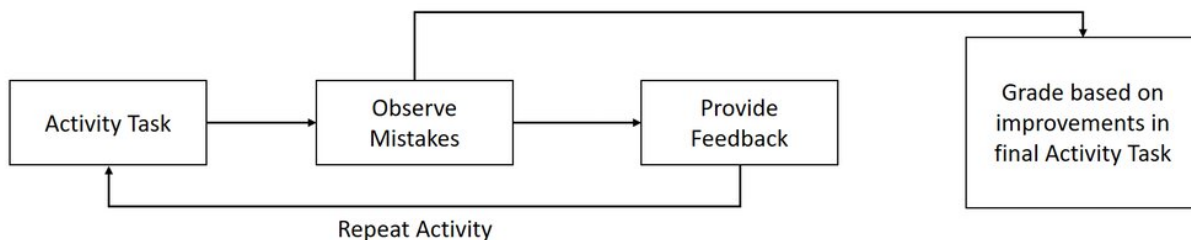
Our research aim was to help these students develop those skills.

We used a corrective feedback learning approach, which advocates using failures or mistakes as learning opportunities. We designed an activity the students would repeat and at each stage we provided feedback and asked them to reflect on their mistakes.

We would then observe—but not mark—the progress of the students in each iteration. It's important students are given a chance to improve upon their mistakes after each feedback.

Role-play interviews

Our study was conducted over two semesters with a total of 348 students enrolled in the Master of Information Technology's unit of Enterprise Business Requirements at UTS.



Designing activity tasks to ‘learn from mistakes’.

One of the tasks for students was a [role-playing activity](#). They were required to play a business analyst and interview a client about their technology and software needs.

We've seen in the past that students in this unit struggled with the social aspects of the interviewing task. So we designed the task by providing students with the opportunity to interview the client three times.

They received feedback on their mistakes at the end of every round and were given an opportunity to improve for the next round.

[In the first semester](#), we observed the students and developed a list of 34 mistakes they made while interviewing a client, such as mistakes in communication skills, analyst behaviour, interaction with customer, and teamwork and planning.

[In the second semester](#), we used that list of mistakes to monitor the progress the students made in all three iterations of the role-play interview activity.

After three interviews with the client, the students submitted a report for final assessment. It was on that report alone that they were marked.

For those students who scored low (below 50%) or average (50% and 60%) on their final assessment, they showed little motivation to improve their mark in all three rounds of feedback.

But those who scored 90% or more in their final assessment showed they were motivated to improve their mark. They made fewer mistakes in the second and third iterations of the interview, in comparison to their first interview.

These students improved upon their mistakes in communication, teamwork, planning and personal skills.

But the top-scoring students still struggled with the customer interaction part even by the third [interview](#). When asked, the students reflected later that they needed more practice to improve that part of interviewing skills.

We can all learn from mistakes

The experiment found we need to include more preparation for students to develop and practice their skills.

Some university courses may already be doing this kind of feedback in assessment, but that wasn't the case in our IT unit.

By providing a safe and simulated environment for our students to practice self-reflection and try to improve, our hope is that it offers a chance to build resilience and prepare mentally for the real world outside the classroom.

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