Evaluative conversations as an AI-resilient, effective and inclusive form of assessment.

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Abstract

The rise in artificial intelligence has accelerated the need for Higher Education Institutions worldwide to rethink their approach to student assessment. One candidate receiving increased attention in tackling widespread AI usage and to promote academic integrity is the use of evaluative conversations as a form of interactive oral assessment. However, despite qualitative studies suggesting beneficial evidence, to date quantitative analysis of this form of assessment has been lacking. Here, using data from a first-year cohort of undergraduate students we critically assess the effectiveness of evaluative conversations as a form of assessment overall and across two different demographic groups; those with/without declared disabilities and age at start of course (mature vs non-mature). We find evidence that evaluative conversations are an effective and inclusive form of assessment, with students achieving marks similar to online course tests, regardless of demographic group. With an appropriate design in place, evaluative conversations can be a powerful addition to the assessment toolkit of Higher Education institutions.

Keywords

Assessment, higher education, in-person, viva, evaluation, artificial intelligence

Introduction

In the past decade, two key events have prompted universities to fundamentally reconsider how they approach academic assessment. In 2020, the COVID-19 outbreak led several higher education (HE) institutions to use online course tests as their primary form of assessment (Kawaguchi-Suzuki *et al.*, 2020; Osabutey *et al.*, 2024). More recently, with the surge of

artificial intelligence (AI) and large-language models (LLMs, such as ChatGPT, Claude, and MS Copilot; Estaphan *et al.*, 2025; Kofinas *et al.*, 2025), universities are again faced with the need to change how they approach assessments. In particular, there is a necessity to assess student learning and comprehension in a plagiarism-free environment that promotes authenticity and academic integrity in light of the surge of AI usage (Arico, 2021; Nallaya *et al.*, 2024; Eachempati *et al.*, 2025; Estaphan *et al.*, 2025; Kofinas *et al.*, 2025). One such candidate, which has begun to garner increasing attention in recent years is oral assessment (Fenton, 2025; Kofinas *et al.*, 2025).

Evaluative conversations (ECons), or *viva voce* exams (Arico, 2021), are a form of interactive oral assessment typically associated with evaluating PhD candidates or used as a form of examination within the medical education and healthcare fields of research (Pearce & Lee, 2009; Dhasmana *et al.*, 2016; Arico, 2021). Whilst the exact format of an ECon differs across institutes and disciplines, they typically consist of an oral examination where students are tasked with answering a set of questions related to course-taught content (Arico, 2021). Whilst anecdotal and qualitative evidence suggests students perceive this form of assessment as more effective than traditional forms of examination (Pearce & Lee, 2009; Arico, 2021; Brogan *et al.*, 2024; Sugden *et al.*, 2026), with the growing adoption of oral assessments it has become necessary to assess the impact of ECons on student performance to ascertain if this positive feedback translates into attainment.

There is also the need to account for variation in student demographics when considering student response to assessments they may have never encountered before. In every HE student cohort

individuals differ markedly across a continuum of traits (Bates *et al.*, 2008; Nieminen, 2023; Seow & Makany, 2026), including variable experience to prior education and heterogenous levels of anxiety and self-efficacy towards different forms of assessment (van Dinther *et al.*, 2011; Duraku, 2017; Nieminen, 2023; Sugden *et al.*, 2026). Indeed, written, exam-based assessments have been found to hamper the expression of skills and abilities for those with declared disabilities (Kendall *et al.*, 2019; Nieminen, 2023), most notably as they often require some form of visual text-based examination (Nieminen, 2023). Oral examination, in contrast, has been found to be a more effective method of assessment in qualitative accounts of HE students with declared disabilities (Waterfield & West, 2005; Kendall, 2016; Arico, 2021) and has been found to be generally more inclusive (Huxham *et al.*, 2012; Palmour, 2026), particularly for those where speaking is generally easier than writing (e.g. non-native speakers; De Vita & Case, 2003; Kozato *et al.*, 2020); although they can also be associated with temporary periods of increased anxiety (Huxham *et al.*, 2012; Iannone & Simpson, 2015; Alcorn & Cheesman, 2022). However, crucially they have been found to provide all students with greater agency to demonstrate their understanding of the course content (Iannone *et al.*, 2020; Nallaya *et al.*, 2024). Similarly, although the research is comparably lacking, it has been suggested that older students (or mature, defined as those aged over 21 at the start of the academic year; Chapman, 2017) may respond better to novel assessment as they have been less exposed to this form of examination previously (Kang *et al.*, 2022), although research from final year nursing students found little evidence of improved viva satisfaction with age (Salamonson *et al.*, 2016). To be considered a fair and robust assessment, ECons must provide evidence that they are equally effective across a multitude of student demographics, not simply the general student cohort. We focus here on these two demographics as they represent key groups of students that are

frequently at risk of non-continuation from HE institutes due to lack of inclusive practice (Hayman *et al.*, 2024; Shaw, 2024).

The aim of this study was therefore two-fold. Firstly, to investigate the impact of ECons on student marks in comparison to more traditional online-only or in-person open- and closed-book assessments. This allows us to test whether this form of assessment represents an effective form of plagiarism-free examination which promotes a similar but also subtlety different set of skills in comparison to typical forms of assessment (e.g., effective communication, spontaneous problem-solving, and deep understanding; Huxham *et al.*, 2012; Eachempati *et al.*, 2025; Stephenson *et al.*, 2025). Secondly, to assess whether assessment performance across two key student demographics, declared disability and mature status, varies across a suite of assessments. This will enable us to directly assess whether this form of assessment is an inclusive practice for all students.

Methods

Course tests and assessments

Students in a first-year (level four) Biological Sciences module from the University of XXXXXX, UK, undertook four different forms of assessment during this 20-credit, autumn semester module. All of the assessments contributed to their overall module grade. Firstly, at the start of the semester (in weeks four and eight), students were given two open book, online-only course tests (CT1 and 2, respectively; each worth 10% the module grade). These tests remained open for 24 hours, consisted of 20 multiple choice questions randomly drawn from a larger pool of questions, and students were allowed two opportunities to complete the assessment (with the

highest mark counting). Notably, students did not know how well they did on the first attempt and were encouraged to reflect on their perceived performance when deciding if they wanted to use the option of a second attempt. Preparation for this assessment included a formative online test consisting of 10 MCQs, deployed in the same format as the later summative tests. The third summative assessment was the in-person evaluative conversations (ECons; worth 60%), which occurred at the end of the semester (Weeks 11 and 12). Prior to this assessment, during week nine, students worked in groups of approximately 10 students with each group facilitated by a member of staff to engage in a formative preparation session, working together to practice preparing answers to example ECon questions. Following this preparation session, further support came in the form of providing the students with the same six, long-answer questions that would feature as the first part of their summative ECon.

The summative ECon then consisted of two parts, each worth 50% of the assessment grade. The first consisted of answering two randomly selected questions from the six which had been presented to the students two weeks prior to the assessment. The second part of the assessments saw the students tasked with identifying key features from specimens that had been made available to the students in their earlier taught sessions. Each student was asked to select one skull from three that were available, as well as one non-vertebrate specimen, and describe key features and adaptations in that species. In this part of the assessment, the students had not been told which specific specimens would be available, but they were told that they would be able to select a specimen from three and that all specimens had been part of the module teaching sessions.

Each ECon lasted for 15 minutes and was marked by one member of the module teaching staff (so they were familiar to the students). A further member of the module team acted as a moderator, double marking 20% of the ECons. All markers had a copy of a detailed assessment scheme and were encouraged to foster a supportive, friendly yet professional environment for the students. Being a first-year, semester one module, one of the aims of assessment was to build student confidence and develop skills such as communicating ideas and sharing opinions. With that in mind, prompting during the ECon questions was allowed if students had misinterpreted the task or been unclear with the points they had made, with the aim of supporting the students to demonstrate the best of their relevant knowledge.

The final assessment, occurring in week 12 (the final week of the semester) was an in-person, online, closed-book test (CT3 In-Person; worth 20% of the module grade). Students were only given one attempt at this test, but the content of the assessment covered material included in CT1 and 2 (25% each) with 50% also being new content covered since week 8 of the module.

Student sample

In total, we obtained 301 marks from 79 students taking this level 4 module during 2025/26 (CT1 = 77, CT2 = 73, ECon = 76, CT3 In-person = 75) with the number of assessments per student ranging from 1-4 (Mean±SD = 3.8±0.51 assessments; N.B. students might miss an assessment for a multitude of reasons, which will not be explored in this study). From this sample 65 students were <21 years of age at the time of entry onto their course, 12 were >21 years of age, and two provided no response. Across the cohort 48 students had no declared disability, 29 had declared a disability, and similar to above, two students provided no response.

These two students were subsequently excluded from the second part of the analysis (see below). Prior to data archiving, all identifying characteristics were anonymized.

Statistical analysis

All analyses were run in R v4.5.2 (R Core Team, 2021). Packages used for data cleaning and tidying were from the {tidyverse} v2.0.0 collection (Wickham, 2017) along with {hablar} v0.3.2 (Sjoberg, 2020) and {janitor} v2.2.1 (Firke, 2020). All graphs were created using {ggplot2} v4.0.2 (Wickham, 2011) and distributions with {ggrain} v0.1.2. (Judd *et al.*, 2026). In addition, {emmeans} v2.0.1 (Lenth *et al.*, 2019) was used to calculated post-hoc estimated marginal means of models involving interactions, which were subsequently corrected for using a multivariate *t* distribution (*mvt*). All models were fitted using {glmmTMB} v1.1.14 (Brooks *et al.*, 2017; Magnusson *et al.*, 2017). Lastly, {DHARMa} v0.4.7 (Hartig, 2017) was used to check model fit and residual distribution. Lastly, {rptR} v0.9.23 (Stoffel *et al.*, 2017) was used to test repeatability (i.e., consistency) of student performance across the four assessments.

We fitted two models to the data, both with received assessment marks as the response. The first was a gaussian mixed effects model with assessment type as a fixed factor (four levels: CT1 and CT2 Online, CT3 In-Person, and Evaluative Conversation) and a random intercept of student ID to account for repeated sampling of the same student across multiple assessments. With the above model formula, we tested the repeatability of student marks across the four assessments with and without the fixed effect of assessment (i.e. fixed and random or random effect-only model).

The second was an identical model to above but with two additional higher-order interactions, between assessment mark and declared disability status (two levels: yes and no) and between assessment mark and mature status (two levels: yes and no). As there were only six students with both a declared disability and mature status, a three-way interaction was not fitted. No model simplification took place. Pairwise comparisons were then used to compare the differences between the course tests, corrected for multiple comparisons (see above).

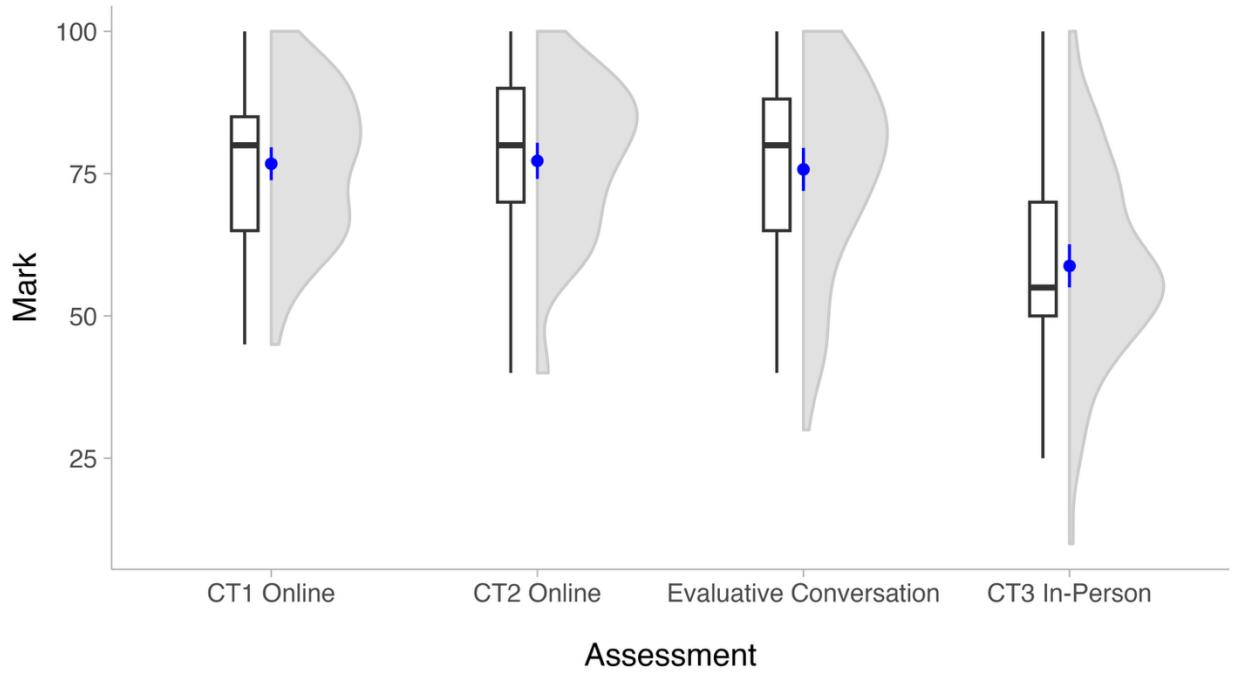
Ethics

Ethical approval was sought and granted from the Science Faculty Research Ethics Committee at the University of XXXXXXX (Application ID ETH2526-2648).

Results

Across all students, the in-person test assessment (or Course Test 3) was associated with significantly reduced marks (Fig. 1; all pairwise comparisons $p < 0.001$; Table S1A-B) with an average percentage of ~58% in comparison to the other forms of assessments where students averaged ~75%. There were no significant pairwise differences between the other forms of assessments (all pairwise comparisons $p > 0.90$; Fig. 1; Table S1A-B). The raw repeatability (i.e. without the fixed effect of assessment) was not significantly different from zero (R = 0.067, SE = 0.049, $p = 0.108$; Fig. S1) indicating that without accounting for assessment, student ID explained only 6.7% of the variation in test scores. When assessment was added the adjusted repeatability of student was significant (R = 0.17, SE = 0.060, $p = 0.001$; Fig. S1), indicating that 17% (classified as low repeatability) of a score is explained by the actual student taking the assessment.

When looking at student characteristics, no differences in test scores were found when comparing assessment marks for those with and without a declared disability or depending on mature status (all pairwise comparisons $p > 0.05$; Table S2A-B). However, both those with and without declared disabilities had lower assessment scores in the in-person course test compared to the other forms of assessments (all pairwise comparisons $p < 0.001$; Fig. 2; Table S2A-B). As above, there were no significant pairwise differences between the other forms of assessments (all pairwise comparisons $p > 0.90$; Fig. 2; Table S2A-B). When looking at mature status, only the comparison between the ECons and the in-person assessment remained significant in both the mature and traditional-age groups after accounting for multiple comparisons ($p < 0.05$; Fig. 3; Table S2A-B), indicating that both groups, regardless of age, performed better in the ECon assessment compared to the in-person assessment. Notably, mature students performed equally well in both online tests and the in-person assessment (CT 1 and 2 vs in-person assessment: $p = 0.297$ and 0.140; Table S2A-B). Suggesting that this group were perhaps more resilient to certain assessment types in comparison to traditional age students.



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212 **Figure 1.** Average marks across all student assessments within a level 4, biological sciences
213 module (Sample sizes: CT1 = 77, CT2 = 73, ECon = 76, CT3 In-person = 75). Data shown
214 denote the raw values (the violin distribution) as well as average values with the median denoted
215 in the boxplot (in addition to the interquartile range and the minimum and maximum values) and
216 the mean assessment mark shown in blue with associated 95% confidence intervals.

217

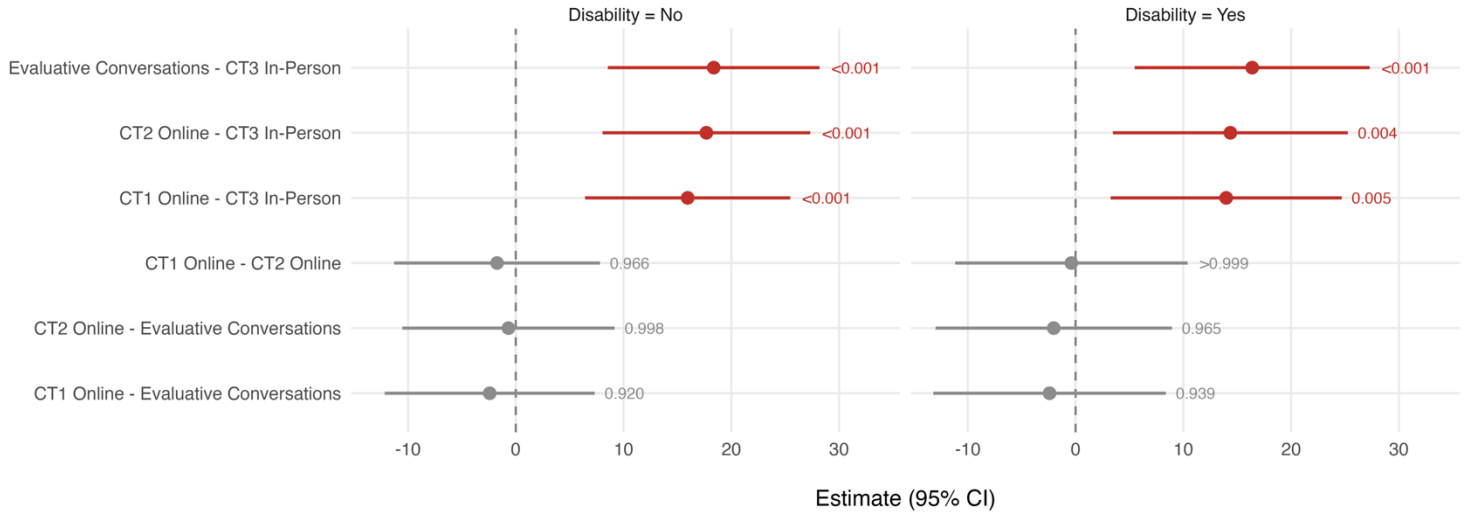

Figure 2. Pairwise comparisons between Online (CT1 and CT2), In-person (CT3), and Evaluative Conversation assessments for students with (right) or without (left) declared disabilities (Sample sizes: total = 77; yes = 29, no = 48). Contrasts are taken from a full model and estimated using marginal means corrected for with the multivariate t-distribution. Points represent mean values whereas the bars denote 95% confidence intervals. Colours in red or grey indicate significant or non-significant comparisons, respectively (to alpha 0.05). The values to the right of each bar are the significance.

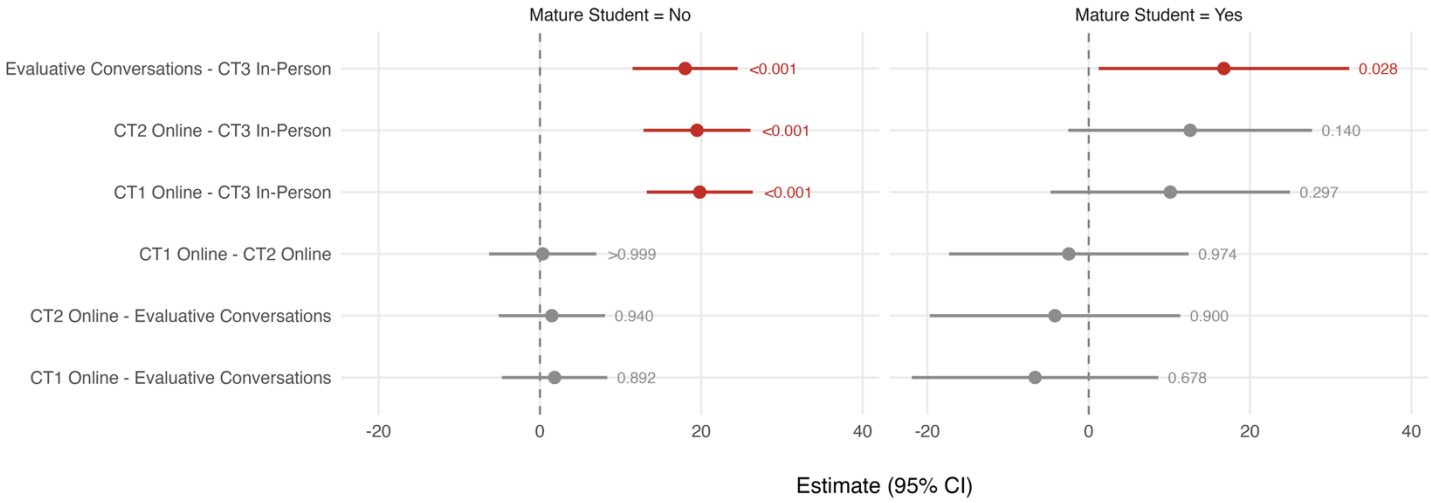

Figure 3. Pairwise comparisons between Online (CT1 and CT2), In-person, and Evaluative Conversation assessments for mature (right) and traditional-age (left) students (Sample sizes: total = 77; yes = 12, no = 65). Contrasts are taken from a full model and estimated using marginal means corrected for with the multivariate t-distribution. Points represent mean values whereas the bars denote 95% confidence intervals. Colours in red or grey indicate significant or non-significant comparisons, respectively (to alpha 0.05). The values to the right of each bar are the significance.

Discussion

The aim of this study was to investigate the effectiveness of evaluative conservations (ECons) and the performance of students both overall and across different declared demographic groups. We found compelling evidence that regardless of tested student demographic, ECons should be considered an effective and powerful form of inclusive assessment, with students obtaining marks similar to online-only open-book tests but requiring a completely different set of skills in comparison to more traditional forms of assessment. In contrast, students taking a closed-book in-person test obtained lower marks in comparison to the ECons, regardless of declared disability or mature status. This highlights a need to move away from tests of memory towards skill-based methods of assessment that use dialogue to increase student agency and support students in expressing competency. In doing so, this approach offers the opportunity to revitalise HE assessment, particularly considering the surge of AI use.

The use of oral examination is not a novel technique to assess student performance (Fenton, 2025) but its implementation has seen a resurgence in HE due to the recent marked increase in convenience and usage of AI and LLMs. We show here that not only do students perform well in comparison to other forms of assessment (in-person, closed book) but it is also inclusive of disability and mature status (Huxham *et al.*, 2012; Nieminen, 2023; Fenton, 2025). This matches previous research by Huxham *et al* (2012) who found no evidence that particular student groups were disadvantaged by oral examination in comparison to written examinations and even scored higher in the latter (see also Rushton & Eggett, 2003). Although we note that here, students performed better in the oral examination compared to an online in-person closed-book assessment with no difference between the online-only open book test. Nevertheless, across student demographics, students were similarly found to not be placed at a disadvantage by oral

examination. This may be a result of the increased flexibility and opportunity for students to articulate their answers in an environment that promotes deeper learning and retainment than traditional written forms of examination (Joughin, 1998; Fenton, 2025). It may also reflect the benefit of providing pre-assessment support with suitable scaffolding for this form of oral examination. A qualitative investigation of student responses to both the pre-assessment support and the subsequent summative assessment in addition to a quantitative assessment of student marks with and without pre-assessment support would be particularly insightful.

Whilst our findings support equitable performance between ECons and other assessment types, they do not address concerns raised in the literature regarding the employment of such techniques. The first is from the perspective of the examiner or educator and relates to the need for substantial time commitment to run this form of assessment. This is not a novel concern, having been brought up in 1958 (Morrissett, 1958), however, with careful planning, this form of assessment can often outpace more traditional examination types as the marking is done *in situ* during the oral examination itself (Morrissett, 1958; Arico, 2021; Theobold, 2021; Fenton, 2025). The second is from the perspective of the student (and can also be a barrier for adoption for the examiner) and relates to the potential for this form of assessment to be associated with increased levels of anxiety (Iannone & Simpson, 2015; Fenton, 2025). However, it is uncertain whether the anxiety stems from the novel assessment or this particular form of face-to-face examination (Huxham *et al.*, 2012; Nallaya *et al.*, 2024), which can easily be countered by preparing students throughout the module (Fenton, 2025). In addition, researchers have also identified that this anxiety may not always be negative, with some saying that it could be the reason behind higher grades as students were more likely to thoroughly prepare and revise prior

to examination (Huxham *et al.*, 2012; Iannone & Simpson, 2015; Fenton, 2025). Furthermore, there are other methods that can be implemented that can reduce the anxiety of students undertaking the oral assessment (e.g., Technology-Assisted Vivas, where students are assessed via remotely delivered questions in the form of text, audio or audio-visual, see Alcorn & Cheesman, 2022). Overall, a significant component of these concerns largely come down to the design in which these oral examinations are implemented and integrated into the module via appropriate scaffolding (for useful advice and practical considerations for running this form of assessment see Arico, 2021; Theobold, 2021; Fenton, 2025).

This study has some limitations that should be discussed. Firstly, the lack of standardised questions between the different forms of assessments; students could have performed better or worse purely due to the type of questions asked. As this was an undergraduate module and the same cohort of students across all four assessments, it was not possible to repeat the same questions to disentangle the effect of environment from the influence of questions asked. This would ultimately confound the effect of learning experience with the order that the assessments are given. As a result, considering the average performance of each student across all four assessments by partitioning variance in the random intercept of student ID random effect represents the most suitable method to assess the performance of the evaluative conversation. Second, the assessments differed in their overall contribution to the module grade of the student. The first two CTs (CT1 and 2) were worth 10% each, the ECon 60%, and the final CT (CT3) was worth 20%. As such, the impetus for a student to revise and perform better in the ECon was an order of magnitude higher compared to the other assessments. This may explain why the last course test performed poorer than the ECon but does not explain the lack of significant

difference in marks between the ECons and CTs 1 and 2, particularly as these are worth less than CT3. As such we can be confident that the weighting of the assessment was having a minimal impact on student performance. Nevertheless, future studies focusing on variable assessment types should endeavour to standardise the contribution of different assessments in order to avoid this potential confounder. Lastly, with the current experimental design and collected data it is not possible to accurately conclude which of the assessments is a better reflection of the *true* grade and ability of a student; are assessments that produce a lower student performance on average a better predictor of overall ability than those that produce higher? This study lacks the ability to test this, but future studies should look to correlate a student's assessment mark with their overall grade.

Conclusion

To conclude, we provide quantitative evidence that evaluative conversations are an effective, powerful, and inclusive form of assessment that has no detectable negative effect on student performance. With an appropriate design, this form of examination can be easily implemented and embedded in education higher modules with suitable scaffolding and planning to alleviate both student and educator concerns, and importantly, actively encourages deeper learning in an environment that reduces the impact of artificial intelligence.

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Supplementary Material

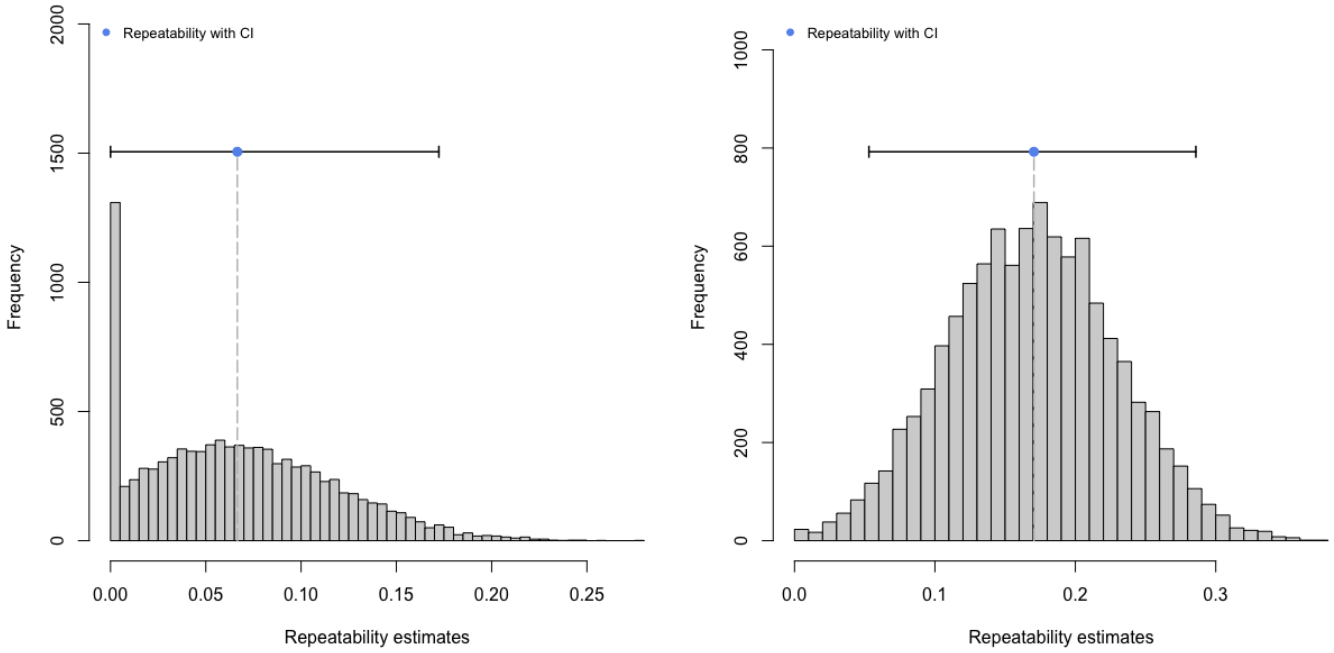

Figure S1. Repeatability estimates without (left) and with (right) the addition of assessment type. The blue point shown denotes the bootstrapped R value with 95% confidence intervals.

Table S1A. Full model output from the overall model of assessment type.

Predictors	*Estimate*	*SE*	*p value*
(Intercept)	76.91	1.73	**<0.001**

Assessment [CT2 Online]	0.04	2.27	0.985
Assessment [ECons]	-1.28	2.24	0.568
Assessment [CT3 In Person]	-18.20	2.25	**<0.001**
Random Effects			
σ^2	191.23		
$\tau_{00\ student}$	39.31		
ICC	0.17		
$N_{\ student}$	79		
Observations	301		

Table S1B. Pairwise comparisons from the overall model of assessment type. Showing the comparison made, the estimate with error, z value and corresponding *p* value (bolded to alpha 0.05).

Comparison	*Estimate*	*SE*	*z value*	*p value*
CT1 Online - CT2 Online	-0.0415	2.2706	-0.0183	1.0000
CT1 Online - ECons	1.2821	2.2426	0.5717	0.9405
CT1 Online - CT3 in Person	**18.1962**	**2.2507**	**8.0849**	**0.0000**
CT2 Online - ECons	1.3236	2.2737	0.5821	0.9375
CT2 Online - CT3 in Person	**18.2377**	**2.2824**	**7.9906**	**0.0000**
ECons - CT3 in Person	**16.9141**	**2.2537**	**7.5052**	**0.0000**

Table S2A. Full model output from the overall model of assessment type and demographics.

Predictors	*Estimate*	*SE*	*p value*
(Intercept)	77.66	2.29	**<0.001**
Assessment [CT2 Online]	0.33	3.02	0.912
Assessment [ECons]	-1.81	2.96	0.540
Assessment [CT3 In Person]	-20.80	3.00	**<0.001**
Disability [Yes]	-1.14	3.64	0.753
Mature [Yes]	-2.09	4.80	0.664
Assessment [CT2 Online] × Disability [Yes]	-1.35	4.74	0.776
Assessment [ECons] × Disability [Yes]	-0.01	4.70	0.999
Assessment [CT3 In Person] × Disability [Yes]	1.97	4.70	0.675
Assessment [CT2 Online] × Mature [Yes]	2.81	6.31	0.657
Assessment [ECons] × Mature [Yes]	8.46	6.46	0.190
Assessment [CT3 In Person] × Mature [Yes]	9.70	6.30	0.124
Random Effects			
σ^2	189.74		
$\tau_{00\ student}$	39.52		
ICC	0.17		

$N_{student}$	77
Observations	293

Table S2B. Pairwise comparisons from the overall model of assessment type and demographics. Showing the contrast made, the estimate with error, z value and corresponding *p* value (bolded to alpha 0.05).

Comparison	*Contrast*	*Estimate*	*SE*	*z value*	*p value*
CT1 Online	Disability No - Yes	1.1450	3.6358	0.3149	0.7528
CT2 Online	Disability No - Yes	2.4932	3.7022	0.6734	0.5007
ECons	Disability No - Yes	1.1501	3.6445	0.3156	0.7523
CT3 In Person	Disability No - Yes	-0.8284	3.6481	-0.2271	0.8204
CT1 Online	Mature No - Yes	2.0870	4.8000	0.4348	0.6637
CT2 Online	Mature No - Yes	-0.7192	4.9704	-0.1447	0.8849
ECons	Mature No - Yes	-6.3773	5.1606	-1.2358	0.2165
CT3 In Person	Mature No - Yes	-7.6148	4.9576	-1.5360	0.1245
Disability = No	CT1 Online - CT2 Online	-1.7372	3.7117	-0.4680	0.9660
Disability = No	CT1 Online - ECons	-2.4188	3.7883	-0.6385	0.9195
Disability = No	**CT1 Online - CT3 In Person**	**15.9477**	**3.7014**	**4.3085**	**0.0001**
Disability = No	CT2 Online - ECons	-0.6816	3.8302	-0.1779	0.9980
Disability = No	**CT2 Online - CT3 In Person**	**17.6849**	**3.7462**	**4.7208**	**0.0000**
Disability = No	**ECons - CT3 In Person**	**18.3664**	**3.8190**	**4.8092**	**0.0000**
Disability = Yes	CT1 Online - CT2 Online	-0.3890	4.1935	-0.0928	0.9997
Disability = Yes	CT1 Online - ECons	-2.4137	4.1950	-0.5754	0.9395

Disability = Yes	**CT1 Online - CT3 In Person**	**13.9743**	**4.1681**	**3.3527**	**0.0045**
Disability = Yes	CT2 Online - ECons	-2.0247	4.2630	-0.4749	0.9646
Disability = Yes	**CT2 Online - CT3 In Person**	**14.3633**	**4.2390**	**3.3884**	**0.0038**
Disability = Yes	**ECons - CT3 In Person**	**16.3880**	**4.2400**	**3.8651**	**0.0006**
Mature = No	CT1 Online - CT2 Online	0.3400	2.5877	0.1314	0.9992
Mature = No	CT1 Online - ECons	1.8159	2.5434	0.7140	0.8916
Mature = No	**CT1 Online - CT3 In Person**	**19.8119**	**2.5577**	**7.7459**	**0.0000**
Mature = No	CT2 Online - ECons	1.4759	2.5668	0.5750	0.9396
Mature = No	**CT2 Online - CT3 In Person**	**19.4719**	**2.5801**	**7.5470**	**0.0000**
Mature = No	**ECons - CT3 In Person**	**17.9959**	**2.5368**	**7.0940**	**0.0000**
Mature = Yes	CT1 Online - CT2 Online	-2.4662	5.7740	-0.4271	0.9738
Mature = Yes	CT1 Online - ECons	-6.6484	5.9427	-1.1187	0.6778
Mature = Yes	CT1 Online - CT3 In Person	10.1101	5.7739	1.7510	0.2972
Mature = Yes	CT2 Online - ECons	-4.1822	6.0416	-0.6922	0.9001
Mature = Yes	CT2 Online - CT3 In Person	12.5763	5.8774	2.1398	0.1406
Mature = Yes	**ECons - CT3 In Person**	**16.7585**	**6.0416**	**2.7739**	**0.0283**