Open Research Online

The Open University's repository of research publications
and other research outputs

Assessment Design

Book Section

For guidance on citations see FAQs.

Version: Version of Record

Link(s) to article on publisher's website:
http://dx.doi.org/doi:10.5281/zenodo.6563225

oro.open.ac.uk

Designing
Online Assessment

Solutions that are rigorous, trusted, flexible and scalable

Klaus-Dieter Rossade, José Janssen,
Carlton Wood & George Ubachs

EADTU

EADTU Special interest Group on Online Assessment

European Association of Distance Teaching Universities (EADTU) | Netherlands
George Ubachs (Chair, author)
Stefan Meuleman (Coordination, layout)
Piet Henderikx
Theodora Boskou

Open University (OUUK) | United Kingdom
Klaus-Dieter Rossade (Author)
Carlton Wood (Author)

Open Universiteit (OUNL) | Netherlands
José Janssen (Author)

FernUniversität in Hagen | Germany
Andreas Kempka
Stefan Stürmer

Open University | Israel
Michal Ben Shaul

University of Ljubljana | Slovenia
Rasa Urbas
Marko Papic

CALED | Ecuador
Mary Elizabeth Morocho Quezada

Universidade Aberta | Portugal
Diogo Casanova
Lúcia da Graça Cruz Domingues Amante

Universitat Oberta de Catalunya (UOC) | Spain
Ana Guerrero
Nadja Gmelch
Loles González

UniDistance | Switzerland
Damien Carron
Henrietta Carbonel

Tampere University of Applied Sciences (TAMK)| Finland
Kirsi Saarinen

Thomas More University College | Belgium
Quinten Verdonck

Artevelde University of Applied Sciences | Belgium
Soetkin Lootens
Olaf Spittaels
Eef Vervalle

Hellenic Open University | Greece
Efthimios Zervas
Dimitris Kalles

Universidad Nacional de Educación a Distancia (UNED)| Spain
Miguel Santamaria
Ángeles Sánchez-Elvira Paniagua
José L. Aznarte

National Center for Distance Education | Czech Republic
Jan Beseda

Jyväskylä University | Finland
Pessi Lyyra
Tomi Waselius

Johannes Kepler Universität (JKU) | Austria
Thomas Fischer
Ursula Niederländer

Open University (OUC) | Cyprus
Erato Ioanna Sarri
Michalis Epiphaniou

Further contributions

Universidad Nacional de Educación a Distancia (UNED) | Spain
Elena Martín-Monje, M. Dolores Castrillo, Paz Díez-Arcón, Llanos Tobarra Abad, Jesús González Boticario, M Ángeles Escobar Álvarez, Ana Ibáñez Moreno, Noa Talaván and Antonio Tinedo-Rodríguez

Universidade Aberda | Portugal
L. Amante, M. C. Pinto and I. Oliveira

Open Universiteit (OUNL) | Netherlands
Ekaterina Muravyeva

Universidad Técnica Particular de Loja (UTPL) | Ecuador

Luis Moncada Mora, Duval Quezada Chávez and María José Rubio Gómez

Czech Association of Distance Teaching Universities (ČADUV) | Czech Republic

Lucie Rohlíková

Contents

Introduction

T he idea for a Special Interest Group on online assessment emerged from an EADTU workshop in September 2020. Member practitioners had gathered to discuss the impact of the Covid19 pandemic and the actions taken in their institutions. A few participants expressed their interest to meet up outside the workshop to discuss assessment practice further. This led to the proposal for an EADTU Online Assessment SIG which was approved by the executive in December. Planning for the group's first meeting started in January 2021.

On 17th March 2021, 26 HE practitioners with responsibility for assessment met for the first time, representing 17 EADTU member institutions from 12 European nations and a representative from CALED, the Instituto Latinoamericano y del Caribe de Calidad en Educación Superior a Distancia. The SIG is open to all EADTU member organisations and limited to two representatives per institution to keep meetings manageable[i].

Ways of working

At that first meeting, participants shared via Padlet[ii] the pandemic challenges they had faced in their institutions and their national and regulatory contexts, as well as the response to these, through actions, institutional strategies, research and innovation. Anna Guerrero Roldân (UOC) presented the work to date of the European Commission funded TeSLA project[iii] and the solutions the project has developed for taking assessment online. After that first meeting, George Ubachs (EADTU), Jose Jansen (OUNL and lead of the EADTU Empower expert group on E-assessment), and Klaus-Dieter Rossade (OUUK), later joined by Carlton Wood (OUUK), took the outcomes of the discussion to prepare future meetings and plan the body of work the SIG would aim to deliver over the next twelve months.

Altogether, the group met five times to explore the details of the emerging themes, discuss selected examples of practice and contribute to the final draft of the report. Klaus-Dieter Rossade presented the group's work at the annual EADTU I-HE conference[iv] from 3-5 November 2021 in Bari, Italy and the final report at the EADTU-EU Summit in Brussels, on 11 May 2022, where it was launched to the public. This will be followed by the launch of a website[v], planned for May 2022, which will support the work of the SIG in the future and provide further resources.

The mission of the group is to share members' local expertise in how to design and plan institutional online assessment strategies and the experiences from delivering under the conditions of the Covid19 pandemic and in a post pandemic world. This included establishing a 'baseline' of the challenges, practices and new developments during the pandemic, examples of research and innovation in online assessment, and the supportive (or non-supportive) national policies and frameworks that define the context of assessment for the institutions. It also included collating practical examples from SIG members that can help, if not inspire developing better practice and new thinking in other member institutions. The group agreed to produce a report that would capture all this and share inventories of good practice, institutional strategies and related projects and results. The report would be underpinned by the good practices[vi] and a website that would grow dynamically, reflecting the changing challenges and institutional responses for the remainder of the pandemic and, eventually, the post-pandemic world. It is envisaged that the SIG will become a permanent element in the portfolio of EADTU and contribute to further community building around assessment strategy, policy and practice, with potential further joint publications down the line.

Over the past twelve months, three main themes emerged from the discussions in the SIG and each of them will be addressed in the three main chapters of this report. They are:

1. Assessment Design
2. Trust, Privacy and Ethics
3. Operational processes, technology and support

A fourth theme came through in many of the discussions, signalling that practitioners and institutions were not just trying to find solutions to meet the immediate challenges, but had implicitly also accepted the long term impact from the pandemic disruption. With the future of assessment already on everybody's mind, it seems appropriate to outline at the start of this report some of the thinking about the implications, challenges and opportunities in the future.

Considering the future

The assertion 'online assessment is here to stay' has a commonplace in presentations, workshops and conferences about assessment in the past two years. This is true even for institutions that fare temporarily reverting to in-person examinations in their immediate post-pandemic assessment strategies. Testing students in exam halls at a given time and a specific place under the watchful eye of invigilators seems no longer the only game in town – alternatives have become imaginable.

Distance Teaching institutions have long had home-based assessment, be that the traditional paper - based submissions of old, or online assignments at various points during the study of a course. Feedback for these formative or summative assignments is an valuable part of the interaction between tutor and student and an important element of distance teaching strategies. An in-person exam taken at a central location with other students was often the final stage in a course's assessment design though there are plenty of qualifications and courses that don't have that final exam either. It was these exams, however, that required urgent action when countries went into lockdown in March or April 2020.

Several SIG members reported that their institutions would return to in-person examinations as soon as possible, not least because the institutional or national legal frameworks for delivering assessment entirely online are not (yet) in place. Where there are no such obstacles, institutions are exploring how the changes during the pandemic can be modified and made permanent. The mood for change in the SIG is palpable. At any rate, deciding whether to pursue online assessment and in-person exams need not be mutually exclusive. Even where practical preparations are underway to return to physically invigilated or proctored examinations, these may in future be digital.

Alternatively, digital exams might become a standard in particular disciplines or at least a possibility for individual students if that is their preference. "Online assessment from home" reads one padlet contribution from Thomas Moore University at the second SIG meeting, "should remain a possibility for students, but only by their own choice, or as a standard in a specific course".[vii] At the Open University Netherlands, such a policy of choice is already in place. At UniDistance, Switzerland, this was considered "a desired and expressed flexibility". In the UK, the Open University "already had […] on line submission systems for course work" and using it for remote exams has worked pretty well which is why the institution is currently "examining whether to retain online exams going forward".

The pandemic required a rethinking of assessment design, including moving towards "high thinking tasks, open book, questions given beforehand" at JYU – these developments "will remain in use and probably increase in the next coming years". Elsewhere, "process based learning" was considered as well as a commitment to "constructive alignment" and the "design [of] all courses blended (new

norm), in which student[s] will be assessed". (Artevelde University of Applied Sciences). E-portfolios were envisaged for some discipline areas and all suggestions aimed to support the shift from "plain reproduction" to "higher level thinking" (Thomas More University College).

Technology will continue to influence the innovation of assessment in future, be that through increased use of existing technologies and applications (quizzes, video based assessment), making e-assessment available at test centres as per standard, or better use of "assessment analytics (i.e. analyse the digital data to improve exam quality", including "standardized (and optimized) scenarios to make technical support easier". (FernUniversität in Hagen). Artificial Intelligence will be part of the mix, for example by focusing on "academic writing, structure, grammar; referencing, etc. Something along the lines of Grammarly but for digital assessment and Portuguese :)" (Universidade Aberta).

Many technology solutions for the future of assessment are already available through existing teaching and learning platforms (Canvas, Moodle), provider-independent product developments such as those from the TeSLA-Project, and what specialist end-to-end assessment providers have to offer (UniWISE). Advances in assessment analytics and Artificial Intelligence will improve current affordances and eventually offer solutions that are out of reach at present though automated AI invigilation is unlikely to replace at scale human invigilation any time soon (Aznarte, J.L. 2020, Aznarte, J.L. et.al., 2022). See also [GP12].

All these examples demonstrate that the future of assessment was part of individual and institutional thinking right from the start, even during peak activity of pandemic related assessment changes in April and May 2020. This thinking includes consideration of the operational challenges that arise, for example, from giving student choices and running traditional exams alongside new digital formats. It also means that assessment standards and traditions in academic or professional disciplines, institutions, accrediting bodies and national quality and legal frameworks (such as right of access) need to be negotiated carefully going forward. Plans that appear straight forward and sensible at first glance, for example reinforcing continuous assessment "to reduce a little bit final examinations" (UOC) may turn out more complex in light of multi-stakeholder demands and historic assessment cultures. At any rate, changes to the assessment will ultimately require a "better performance of learning activities" (UOC) and, more generally, impact on how HE institutions teach and how their students learn.

Principles for the assessment of the future

After the pandemic disruption and the opportunities and challenges it presented, what HE practitioners and institutions do now and decide to do in the near future is significant. Not least for the children born during this pandemic. If we do nothing, they will be sitting school examinations sometime in the next two decades that are ultimately not dissimilar to those that members of the SIG and the generations before them sat in their time. If the next generation goes on to study at a higher education institution for a traditional degree or a professional qualification, what assessment will they be required to take? What will be considered an appropriate way of assessing student's achievement and readiness to enter their chosen field of work sometime close to the middle of the 21st century?

Two reports by JISC, the not-for-profit organisation for digital services and solutions in the UK higher, further education and skills sector, from February and May 2020 (the latter jointly with Emerge Education) outline some of the key components for future assessment.[viii] The first report with the title 'The future of assessment: five principles, five targets for 2025' outlined principles that resonate strongly with the comments and case studies from SIG members submitted over the past

year (Jisc, 2020 and Emerge and Jisc, 2020). Written with a 2025 horizon in mind, these five principles are:

1. Authentic, i.e. a move away from acquiring knowledge to acquiring transferable skills assessed in a more realistic way;
2. Accessible i.e. the aspiration to design assessment within an accessibility-first principle and delivered in multiple ways depending on the needs of future learners;
3. Appropriately automated which includes a mix of automated and human marking and feedback that benefits learners;
4. Continuous refers to the data and analytics to assess the effectiveness and impact of continuous assessment; and
5. Secure which should include elements of authoring detection and biometric authentication for identity and remote proctoring

The second report is called 'Assessment rebooted. From 2020s quick fixes to future transformation' and contains case studies from institutional responses to the pandemic. It has a 2030 and beyond horizon in mind, focused on the three "fundamental principles of trustworthiness, reliability and validity" (p.20). These principles underpin the requirements of today and the aspirations of tomorrow by addressing the needs of students and employers and deliver student centered and personalized assessment anytime and anywhere, delivered efficiently and manageable for different cohort sizes. They will ensure academic integrity and a responsible use and ownership of data. Anticipating greater diversity amongst the student body, future assessment following these principles will also ensure fairness for all students and reduce awarding gaps "if the systems are designed with inclusivity in mind". (p.25)

What JISC identified as principles for the future is in many cases anything but new: the call for authentic assessment has been around for some time and there is much we know already. Villarroel et.al (2018) for example reviewed 125 articles published since 1988 and extracted three dimensions with which to pin down the concept: realism, cognitive challenge and authentic evaluative judgement, the latter being the ability to assess the quality of any work within their discipline, whether their own or that of others. Has the pandemic finally given us the license to redouble our efforts and put into the mainstream authentic assessment based of what we do know already? It is certainly something that SIG members are now pursuing in numbers. Continuous assessment, to take another example, is also well-established good practice in teaching and learning at a distance.

For Valerie J. Shute and Yoon Jeon Kim, assessment should "encourage and support, not undermine the learning process" and "provide formative information whenever possible (i.e., give useful feedback during the learning process instead of a single judgment at the end)" (2013). The benefits of frequent and continuous assignments however quickly become undone when a course then finishes with the high stakes, exam-like gateway to completion that is still the reality of many courses across the sector, including distance learning. Might the time have come for assessment embedded in the learning process, with frequent low-stakes assessment points using gaming principles and allowing for repeat attempts or perhaps dynamic progression of tasks based on what learners performance at any stage of their learning so far? Such "stealth assessment" designs could keep learners engaged and motivated, and by "weaving assessment directly into the learning environments" (Shute and Kim, 2013) they could generate performance data that learner might not even notice but that could contribute to the overall process of awarding a final course result as required by quality standards in higher education.

Much of the future in tertiary sector education rides on getting assessment right. Assessment remains "the most significant prompt for learning" (Boud, 1995, 36) which became apparent to

colleagues at the OUUK during the first pandemic year in summer 2020: while many students were quite simply relieved to have had their final assessment cancelled (and results determined based on already existing continuous assessment grades, as suggested by the regulator and quality assurance agency), a sizeable and vocal minority regretted the loss of the opportunity to demonstrate their learning. Without that final challenge, they also considered it harder to maintain momentum in their studies.

The future of assessment will differ between nations, institutions and even disciplines. What we all need to do is ensure that overall, higher education can meet the challenge of delivering "capable, competent and informed citizens adequate to the challenges of a twenty-first century lifetime" (Ashford, et.al, 2014). There is arguably nothing more important than how we assess our students work and the feedback we provide. "The results of our assessment influence our students for the rest of their lives and careers – fine if we get it right, but unthinkable if we get it wrong' (Race, Brown, and Smith (2005, xi)

The ideas, practices and case studies presented in the following three chapters demonstrate that many of the ideas from the reports are already in progress or are being considered for the future. Designing the future of assessment that we know to be inherently complex, and after all we have learned in the past two years, this can feel like a daunting and high stakes task. It is hoped that the Online Assessment SIG can provide the peer support needed to address the challenges of the future and help the community to develop better assessment by learning from each other without the need to re-invent the wheel every time.

---

[i] A complete list of active SIG members can be found on page 2 of this report. In some cases, 3 members are listed per institute because of replacements.

[ii] The tool is available on https://padlet.com/

[iii] See https://cordis.europa.eu/project/id/688520 for more information about the Tesla Project.

[iv] Visit https://conference.eadtu.eu for more information about the yearly I-HE conference.

[v] The URL of the website will be https://online-assessment.eadtu.eu

[vi] In this report, Good Practices will be referenced by 'GP' plus their order in the report.

[vii] Contributions by SIG members on padlet as part of an activity to collect thoughts and practices are essentially notes written *in the moment*, and therefore not subject to much editing before posting. Different expressions (assessment, examinations, tests) or divergent spelling (online, on line etc.) are being presented here unchanged, while obvious spelling errors have been corrected for better readability.

Assessment Design

01

Lockdown announcements in most European nations in March and April 2020 hit universities at a time when they were preparing for the annual exam cycle, which are often final summative module exams or assignments. In some cases, for example at the OUUK, measures included delivering exams taken at home within less than three weeks from the time the UK government declared the lockdown. The English HE regulator Office for Students and the UK Quality Assurance Agency had published suggestions what universities could do to help students pass their modules and qualifications. These included measures considered acceptable during the crisis, including where no alternative was possible, non-invigilated time-restricted exams taken at home, and even cancellation of assessments where course leaders already had sufficient evidence from students to award module results. Across Europe, universities had to carefully balance the desire to help students complete their courses or studies while also maintaining quality standards through verification and invigilation or proctoring. If that were not enough, designing the required assessment strategies and delivery processes had to be done a speed and at scale.

SIG members reported a range of steps taken to meet their local requirements, including a review of the number and timing of assessment points and the stakes for each of them, i.e whether assignments were formative or summative and if the latter, the weighting of each assessment element. Where institutions opted for greater flexibility, for example to account for differences in pedagogies and disciplinary traditions, they nonetheless had to ensure operational stability and safety for students, staff and the institution as a whole.

At FernUniversität in Hagen, colleagues embarked on a "scientific evaluation of the transformation process from 'traditional formats' to E-Assessment to identify predictors of student acceptance, diversity factors and concerns". This was particularly important and timely where new assessment solutions could potentially become the blueprint for assessment in the future. When an institution or programme agreed on a particular assessment response to the pandemic, this then had to be communicated widely and appropriately to the stakeholder and academic staff had to be taken along the journey. In every case, HE practitioners across several staff categories had to navigate the expected quality standards, student needs, and the institutional and regulatory contexts.

Despite the complexity of designing, delivering and marking of assessment, planning the processes to award of module or course results, as well as meeting the tight timelines of delivery that was sometimes required, it appears that HE practitioners embraced the challenge. On padlet, colleagues reported having experimented with increased formative evaluation, oral presentations and peer assessment and practical project work, using widely available software solutions such as Teams, Canvas, Turnitin, PowerPoint, Panopto Video (Artevelde University of Applied Sciences, JYU, University of Ljubljana, TAMK). At the OUUK, open book exams taken at home soon became the go-to solution to replace traditional exams. UNED gave students choices between modalities of weighting of assessment components, including more traditional, heavily weighted end of module assessment, new options that balance more towards continuous assessment [GP13, GP14], and even some elements of voluntary contributions for additional points. This variety of approaches corresponds with a point made by one member about the "importance of leaving the choice to the teaching teams on the mode of evaluation" (UniDistance).

Flexibility and student choice at Universidade Aberta [GP1, GP6]
Universidade Aberta in Portugal offers flexibility through its virtual pedagogical model (VPM) by stipulating "a degree of choice" in assessment. Student can opt for continuous assessment via three submissions (also known as 'e-folios') or a single endpoint assessment, typically a written exam. The benefit of the continuous assessment route includes formative potential for progressive feedback aimed at improving performance in future assignments. Such progression through feedback has been described as 'single-loop' feedback (Carless, 2019) where it applies to assessment points within a course unit, and 'double-loop' for feedback across several assessment points within a course of study, a feedback 'spiral' of ongoing development support for students.

The Faculty of Education at the University of West Bohemia found new ways for the final assessment in their 'Technology enhanced learning' course that illustrate how the challenges and potential solutions mentioned so far can play out in one particular example: set up as a 90 minute open book exam (phase one), students had to develop a lesson plan based on a specific scenario they were given, using Google Meet for conferencing and invigilation, and Google Docs for completing the task on a given template. Students were allowed to switch-off their camera for part of the task but keep audio open so the examiner could contact the student during the online exam. Google docs allowed the examiner to observe the completion of the task and even intervene where a student was going too far off the mark. In phase two, every student presented their work to the examiner and other students in the examination group. In a final phase, there was a traditional 121 oral exam with each candidate. This example demonstrates how widely available and easy to use software can help address the pandemic challenge through more authentic assessment design. In addition to testing levels of achievement, verified and invigilated by a real person, the candidates received feedback on their work from the examiner and their peers, thus turning assessment *of* learning achievement into assessment *for* learning development. Students reported how they found the final exam "closer to the reality of preparing a teacher for teaching" and they appreciated the privacy and reduced stress that periods of time 'off camera' afforded them [GP10].

Flexibility and student choice at TAMK [GP4]
At TAMK, the desire to add flexibility and student choice led to a redesign on an online engineering course to add weekly assessment to the final exams. In order to manage teaching workloads, these weekly assignment points were automated and students could retake these as often as they wanted at a time that suited them. included weekly exams that could be considered targeted and timely. As a result, engagement with assessment increased and failed attempts became learning points en route to passing the course overall.

All solutions presented at SIG meetings and in case studies require appropriate student support as lack of such support for online assessment increases the risk of students abandoning their studies (OUJYU). Peer support through the Digimentor network across Tampere universities can help with the digitalisation of assessment but also provide user support and distribute good assessment practice.

None of the examples presented in this section have significantly addressed the structural issues of verification, invigilation and the prevention of cheating and this remains a major challenge for the future. This is particularly true in light of the use of essay mills and contract cheating amongst a growing even if still small number of students. Technology will no doubt play an important role but some of the approaches presented here are likely to become part of the solution too: greater authenticity and personalisation of assessment design, choice and flexibility and a reduction of high

stake assessment points, as well as better support to student and a reduction in "performance related anxiety and pressure" **(GP8)** are all likely to reduce the need to seek unacceptable short cuts and support students' development of academic integrity which is, after all, at the heart of studying towards Higher Education qualifications.

Trust, Privacy and Ethics

02

Online assessments involving tools that process personal data for the purpose of identity and/or authorship verification, constitute a context in which trust is a key issue, i.e. trust by all parties involved in the assessment that these technologies enable secure, fair and reliable assessments. After all, educational institutions, students, teachers, employers, quality assurance agencies….. they all want to be able to trust that the assessment – instrument and process – provides a reliable indication of a student's competence.

Ethics come into play, not merely because academic integrity is at stake here, but privacy as well because of the use of personal data. The fact that some groups of users may feel to depend on these technologies more than others (e.g. due to special needs) and hence, more or less 'pushed' to consent to personal data sharing, indicates a need for ethical appraisal of these technologies and the ways in which they are deployed (Muravyeva et al., 2020; Okada et al., 2019; Wilkowska & Zielfe, 2011). The General Data Protection Regulation (GDPR)[1] defines consent as: "[…] any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she […] signifies agreement to the processing of personal data relating to him or her". Clearly, the fact that consent should be given freely, implies that the subject giving consent has a choice, which was not always the case due to coronavirus measures preventing face-to-face examinations. So how did universities work around that and to what effects regarding student privacy and trust?

Challenges

In the context of (online) e-assessment trust is a multi-layered concept (Edwards et al., 2018), encompassing trust in:

1. technology (e.g., functions reliably and as expected; usability)
2. the deployment of technology (e.g. transparency, teacher competence)
3. the organisation deploying e-assessment (e.g. based on reputation)
4. privacy and personal data processing (e.g., data processed as agreed and intended; informed consent).
5. reliability/fairness of the assessment process (identity and authorship verification)

The main challenge lies in building trust, i.e. providing trustworthy solutions, on all these levels. Experience shows that building trust on all these levels is not a matter of simply accumulating trust as trust on one level might be undermining that on another level. Consider, for example, the dilemma the Open Universiteit of the Netherlands (OUNL) experienced concerning the use of a second camera in the so-called *record and review proctoring* (Sietses, 2020) they adopted to enable students taking online exams. Students at OUNL and other universities in the Netherlands objected particularly to the use of a second camera (used for an initial room scan and/or during the entire assessment) for various reasons:

- it increases the complexity for students (cf. level 1)
- it means a violation of students' privacy (cf. level 4)
- it signifies the institution distrusts students by default (cf. level 3)

However, using a second camera for the duration of the assessment enables to build trust in the technology as well, as it will improve the quality of the proctoring service in the sense that it significantly reduces the number of assessments being declared 'invalid' based on recorded data from a single camera (webcam only). The second camera provides complementary data not only to more accurately detect possible fraud but also to counterbalance incidental technical 'hiccups'. Hence, not using it potentially undermines not only the technical (functional) reliability of the proctoring process and the trust therein, but also (trust in) the fairness of the assessment process.

The trade-off being that students feel treated as suspects of fraud by the institution, as reported in student evaluations at OUNL:

> *"It's nasty to be treated as a fraud suspect"*
> *"To feel you're being watched is very unpleasant. I even didn't dare look out of the window for fear of being considered a fraud"*
>
> (Nielissen, 2021; *author translations)*

Various authors have pointed out the same effect in relation to the use of plagiarism detection, which requires students to comply with a system that marks them as being untrustworthy (Zwagerman, 2008) and which students tend to understand as an accusation of cheating or dishonesty (Penketh & Beaumont, 2014).

Though it is not entirely clear to what extent the use of a second camera increases the burden of feeling watched (as compared to use of the webcam only), the debate around a second camera directly touches upon two closely related core legal principles regarding privacy and the processing of personal data: *legal ground* and *proportionality*. Legal ground concerns the question under which conditions one is allowed to collect and use data on others. The General Data Protection Regulation (GDPR[i]) identifies six grounds for lawful processing of personal data (González & de Hert, 2019):

1. consent of the data subject
2. necessity of the performance of a contract
3. necessity to comply with a legal obligation of the controller
4. necessity to protect the vital interests of the data subject
5. necessity to perform a task carried out in the public interest or the exercise of official authority
6. necessity in the legitimate interest of the controller or another third party.

Note that, apart from 'consent of the subject', all legal grounds state a 'necessity'. The concept of necessity can be seen as the linking pin between the two principles - legal ground and proportionality – as necessity implies an assessment of whether the controller can achieve the same purpose without processing personal data or by less intrusive means. In other words, necessity implies ensuring proportionality between processing and purpose (González & de Hert, 2019). Based on the principle of proportionality it can be argued that in high stakes, summative assessments a second camera is needed to ensure a reliable assessment process.

Interestingly, COVID 19 has demonstrated how the interpretation of what constitutes legal ground may vary across space and time. Although all European countries are bound minimally by the same GDPR, supplementary national legislation may be more restrictive. This explains why processing of personal data in the form of video recordings for identity and authorship verification (online proctoring) in the context of e-assessment was – at least initially - prohibited in for instance Spain and Portugal, much to the regret of, for instance, the Universidade Aberta in Portugal [(GP1)], which developed a virtual pedagogical model directed at student-centred education that offers flexibility of choice. Dutch universities did not encounter these restrictions and VU Amsterdam, for instance, chose to use online proctoring on the legal ground of 'legitimate interest', arguing the need to check who is the person taking the test and to establish no fraud was committed (Sietses, 2020).

Reliable online assessments by means of remote proctoring at OUNL [(GP5)]
OUNL transformed its practice of supervised computer-based exams at study centres to online exams invigilated by means of record and review proctoring. For as long as the COVID pandemic prohibited any face-to-face exams, the legal ground for record & review proctoring put forward by OUNL, referring to a court decision[1], was the necessity to perform a task carried out in the public interest, i.e. certification.

Once coronavirus measures became more lenient again OUNL students were given the option to take exams either at a study centre or at home. With this change, the legal ground for personal data processing for proctoring purposes changed to 'consent'. Students who opt for the remote proctoring exam consent to video-recordings being made for proctoring purposes.

Still, for particular groups of students, consent may not be entirely 'freely given' but rather the way out of a dilemma (Muravjeva, Janssen, Dirkx et al. 2020), or the result of normalisation of surveillance in what Lyon (2017) refers to as a 'surveillance culture'. The reports on students complying with the use of technology, which they feel treats them as suspects, indicate it is important to remain aware and sensitive to these broader societal development. In this respect growing concerns are expressed that the effort placed into detection of academic dishonesty comes at the expense of developing academic integrity and critical thinking skills in students (Ross & Macleod, 2018). Further research is needed to shed a light on these concerns.

At any rate consent to sharing personal data should be *informed.* Information is critical not only to ensure *informed* consent, but also to build trust. Information and communication, prior to, during and following the e-assessment process are prominent in all good practices. The remainder of this chapter will focus on the five trust dimensions distinguished at the beginning of this chapter and various approaches adopted or suggested by European distance teaching universities.

Approaches to enhance trust

1. Technology
What measures can educational institutions take to make sure students and teachers can trust the e-assessment technology is easy to use and functions as expected? Distance teaching universities mention various approaches adopted in order to enhance trust in the technology, especially for students. This starts with choosing technology on the base of usability and ease of support. Still, students need to be carefully guided through the technical process to reduce stress. For instance by providing an opportunity for trying out the system [(GP1)], by giving clear instructions and also feedback on what is happening during the process. The latter requires monitoring students and systems during the assessment process and providing event support by a group of people with sufficient knowledge of the processes and systems. Following this approach the Private Technical University of Loja (UTPL) reports "the group that needed help did not reach 3% of the entire population" [(GP2)]. Evaluations at OUNL underline the need to provide feedback at the end of the assessment process as well that assures students of proper receipt/storage of their answers (Nielissen, 2021).

More holistically it is suggested that institutions build a narrative that will help learners and stakeholders understand that the "solution" is stable, sustainable, robust and ensures that students data will be respected.

2. Deployment of technology

Trust in the deployment of the technology requires transparency (guidelines on when to use the technology and how to use it) and trust in the competence (proficient use of the technology) by teachers, assessors, proctors, exam committee, staff involved in complaints and appeal procedures. To begin with, guidelines for e-assessments should include a mapping ('translation') to specific course/assessment designs (see chapter X Assessment design). Moreover it is suggested that guidelines imply that a follow up should be assigned to a member of staff to check compliance (quality assurance role). Besides, it is suggested that social learning (e.g. peer supervision) is an effective means to foster the fit between assessment design and technology and to enhance (trust in) proficient use of the technology [GP3, GP4]. An argument which finds support in research (Meijs et al., 2016; Pataraia et al., 2014).

3. The organisation deploying e-assessment

Trust in the organisation deploying e-assessment is mediated by an institution's general reputation in terms of quality of teaching and learning services. Specifically, with respect to e-assessment it is suggested that educational institutions should balance protection of academic standards with ethical considerations related to students feeling overly scrutinized.

Concerning the latter, the debate may gain from institutions explaining to students that protecting academic standards is not simply a matter of upholding a reputation in the institution's interest; that this is very much in the interest of students as well.

Experiences in the Netherlands indicate that this interest may require clarification. In this respect it can be considered good practice to involve students as partners in decision making as was explicitly the case at the OUUK [GP11]. The OUUK and other good practices also demonstrate how a strong a focus on communication and evaluation in general can help to build trust. The Universidade Aberta in Portugal for instance, reports that average grades have not changed following the switch to online assessment: a key indicator and message to enhance trust in the newly evolved practice [GP1, GP6].

4. Privacy & personal data processing

Transparency is an important general quality criterion in assessments, both concerning what is being assessed (content) and how it is being assessed (assessment task, process, criteria). Transparency in this sense serves (trust in) the validity and fairness of the assessment.

In e-assessments, transparency regarding the 'how' extends to the technology being used in the process. In those cases where this technology requires personal data processing, it is key – legally, ethically and with a view on building trust – to be transparent about the purpose(s) of collecting personal data, the exact data being collected, data subject rights etc. The earlier mentioned European General Data Protection Regulation (GDPR) sets out strict rules that must be complied with and specifies in detail which information should be provided to data subjects when seeking their consent to the processing of their personal data. A full overview complemented with usability recommendations can be found in an open access publication by Muravyeva, Janssen, Specht et al. (2020).

However, obtaining truly informed consent is merely one, albeit highly important, aspect in building trust regarding the collection and processing of personal data. Other considerations:

- cybersecurity of the institution is a preliminary condition: switch immediately to other software in case of security leak
- consult the legal department of the university to check licences, compliance of software with the GDPR, data-sharing agreement. An example of the latter is the TeSLA data processing and data sharing agreements
- look for convenient proctoring solutions & practices, i.e. carefully consider which personal data to collect with a view on proportionality and clearly communicate the reasons behind specific decisions made.
- evaluate student experiences
- diversify: continue enabling on campus digital examination and allow students to choose

5. Reliability and fairness of the assessment process
The main purpose of remote proctoring in online assessments, irrespective of the reasons behind the use of online assessments, is to assure that the assessment provides an accurate indication of the knowledge and ability of the candidate. Remote proctoring addresses two possible threats to assuring this. Firstly, that the person taking the exam is not the intended candidate, and secondly, that the candidate is somehow assisted in responding to the assessment tasks. These threats require a two-fold approach: authentication (identity verification) and authorship verification in relation to various types of academic dishonesty (Janssen et al., 2019). Establishing the identity of a candidate is also done in supervised face-to-face exams in a study centre. Also, the supervisor will monitor the further process (i.e. candidates are not using unauthorized means in taking the exam). Students generally do not question the need and fairness of this approach in a face-to-face setting (which is not to say no attempts are made at workarounds). However, in remotely supervised sessions various trust-issues arise with respect to reliability and fairness of the assessment process and people's trust therein.

For instance, does a room scan by means of a second camera at the start of the assessment suffice to assure reliability? To what extend is a candidate's assessment performance influenced by stress induced by a fear that the technology is not working properly, possibly resulting in the software 'flagging' the assessment or worse, claims of fraud. The fact that 'flagged' recordings will always be assessed by a person may provide some reassurance, but without the use of a second camera this reviewer does not have any additional information to rely on, possibly resulting in 'false positives' because the validity of the assessment cannot be established beyond doubt. Clear protocols should help to build trust by explaining when/how technology might indicate a 'suspicion' of fraud and how this will be followed up with students.

Final comments
This chapter focused on trust, privacy and ethical challenges related to online assessments at home and described approaches by various distance teaching universities to enhance trust with respect to five trust dimensions. It should be noted that these trust dimensions do not concern the actual assessment but rather focus on assessment policy, organisation (read online facilitation) and teacher literacy. In other words: the assessment process rather than its contents. It goes without saying that meeting general assessment quality criteria (transparency, validity, objectivity, and constructive alignment) pertaining to the contents of the assessment, is a basic requirement for student trust irrespective of assessment delivery mode.

We paid relatively much attention to trust issues related to reliability/fairness of the assessment process (identity and authorship verification) as well as the surveillance technology adopted to enhance this. Though wider ethical implications have been hinted at, we believe some final comments are in order to stress the fact that the challenges and approaches described should be considered in a wider and more long-term perspective. To begin with, it is probably good to remain aware that academic dishonesty has always been around and will stay around; this is not something that can be fully abolished. Bearing this in mind, the question presents itself which approaches are most effective to foster academic integrity. To focus too much on (technological) solutions for prevention and detection may actually be counterproductive as was pointed out by Henrietta Carbonel (SIG member. Personal communication, February 10th, 2022):

> *Academic integrity is a pedagogical issue and should not be limited to not getting caught during an exam. We need to be able to trust our students that they will not lie about their methods, falsify their results or plagiarise. These are fundamental values of academic work and need to be developed as such.*

Moreover:

> *We need to teach our students to be critical of the surveillance society in which we live, not force them to accept it.*

Understandably, universities may feel proud of or simply relieved about having been able one way or another to continue to provide their services under dire circumstances. Also understandably, many students who appreciated the flexibility of online home exams, are now happy to see home exams become part of regular practice. And of course, flexible delivery is a key asset of distance teaching universities. It could be argued that all is fine as long as students have a choice, as is the case at OUNL, where a considerable group of students still prefers to take an exam at a study centre. Figures indicate that their numbers have declined mid-Covid (56%) as compared to pre-Covid (61%) but they still constitute a majority (Nielissen, 2021). However, scholars in the field of surveillance culture and its effects on trust, human relations, and well-being, suggest we should review current (technological) achievements and focus on pedagogical solutions to reinforce the culture of academic honesty rather than the culture of surveillance.

---

[i] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN.

Operational processes, technology and support

03

T he following Chapter highlights a number of operational challenges that were faced by institutions as the pandemic struck. These challenges were approached in a number of ways that were dependent upon a number of factors including; how each organisation was already structured, the extent to which each organisation had already deployed and gained familiarity with particular technologies and finally the level of support that was required by staff and students. The over-arching challenges that were identified that were faced by all institutions were:

- How did institutions organise themselves to deliver the required operational processes?
- Could face-to-face provision be adapted for on-line delivery?
- To what extent was technology deployed to assist in the delivery of operational process?
- How did Universities support staff and students whilst delivering the process?

Responses from the padlet exercises and from invited Good Practices, as detailed in the introduction, were analysed for suitable examples to populate this Chapter.

How did institutions organise themselves to deliver the required operational processes?

The overwhelming view of the SIG participants was that the rapid onset of the pandemic required urgent rapid responses of a like that has not previously occurred. There was general uneasiness expressed which suggested that participants in the SIG somehow felt that they may be an outlier and that other institutions were somehow better prepared and this came out in the form of responses like "do universities have already frameworks and guidelines for online examinations?" However, it was clear that no organisation had all the answers and also there was little evidence provided that anyone had generated a previously prepared process that it could swiftly bring out and deploy. It was clear that "all universities are struggling, even open and distance universities, [with things like} verification and proctoring, different levels of competence, scalability of solutions".

Various processes were developed by Universities, faculties and staff in response to the pandemic. These responses were multi-level requiring in some cases direct input from University leadership and these responses were then operationalised by faculty staff. As Universities attempted to make rapid changes there was strong evidence that some of them utilised university level groups or committees to effect rapid change. One example taken from a Good Practice of the Open University in the UK demonstrated this well.

Fast response group set up at the OUUK [GP11]
"The university stood up an Emergency Management Team, with subgroups such as the Academic Implications Group (AIG). This group is at the core of this case study. AIG was tasked to ensure that informed decisions are made and then implemented effectively across the university. This included temporary changes to academic policy and the operational delivery of assessment, tuition, and student support. Process was to support student success and maintain the academic integrity and quality standards"

The author of the Good Practice identified 6 reasons or themes as to why this particular model appeared to work well. These themes were common purpose, urgency, listening and being heard, student partnerships, professionalising communication and cross university membership. The theme of common purpose and a cross university membership appeared to be a unifying principle as the following was also identified by others who stated that "The e-Assessment was set up as a pilot project by the Rectorat three years ago in cooperation with a piloting faculty (psychology). We set up an e-exam task force in the faculty including experts from within the university and external experts to address legal, technical and didactical issues. We then gradually implemented the E-

exams after extensive pre-testing of individual components. And we cooperated with a research institute to get an evidence-based evaluation of the processes including issues of tech acceptance".

Despite the example above showing that some Universities had already had some developments underway that could be adapted for many it meant that a great deal of work needed to be undertaken quickly. There was tension between developing new assessment whilst maintaining the workload at manageable levels and so "creating meaningful assessments, measuring high thinking levels, which do not take up too much faculty time to grade and give feedback" comments were apparent and indicative of a common issue across the sector. All institutions and academics were trying to make these rapid changes and for many the easiest solution was to take what they had previously used and try and adapt it accordingly.

Could face-to-face provision be adapted for on-line delivery?

It was clear that many institutions had good examples where assessment was delivered well in a face-to-face environment. The challenge was to what extent could the existing assessment be adapted to make it deliverable and useful in an on-line environment. There was significant evidence that indicated how the process came about and this is well summed up by a case study from Universidad Técnica Particular de Loja (UTPL) in Ecuador.

> **The model of controlled online assessment at UTPL** [GP2]
> The University decided that they needed to outline a particular model for on-line delivery and so "the pandemic conditions forced the UTPL to make modifications in the way of applying face-to-face evaluations, moving from face-to-face assistance to synchronous assistance using telematic means. This change implied the design of a model for the application of controlled online evaluations. Within the strategic component, three elements were considered: students, evaluators and communication. Regarding the application, we worked with technological systems that allowed an adequate interaction, gave reliability to the process, and guaranteed that the results are on time, complete and correct".

In many responses observed it was possible to link together ways in which the first two challenges (How did institutions organise themselves and could face-to-face provision be adapted for on-line delivery) were addressed. Clearly the role of individuals was important and all the more so when these individuals had experience of on-line delivery and so bringing these individuals together to address the challenges of on-line delivery made sense for many institutions, for instance "a dedicated taskforce was instated at the FernUniversität in Hagen to bring together stakeholders involved in online assessment and to ensure quick communication and alignment between various stakeholders". Unfortunately, despite everyone's best efforts problems remained in some institutions and this was sometimes the source of some frustration "Unfortunately, we still don't have the protocol that would standardise procedures - those would definitely make things easier".

Addressing the challenge of adapting face-to-face delivery to on-line delivery also meant that within the same University different approaches were required. Despite the University level overviews that were set up in the majority of institutions to handle process, it was clear that a 'one size fits all' approach would have been both unpopular and probably unworkable. There was a great deal of evidence supplied to the SIG that solutions that were adopted within an institution had some degree of flex so individual academic areas did not have to follow a single set unified process. Sometimes these decisions were left to faculties "large scale proctoring took place in one faculty, open book exams in some of the other faculties" whilst in others decisions were made by individual teaching teams on particular modules or courses "importance of leaving the choice to the teaching teams on the mode of evaluation (summative and normative evaluation; oral or written evaluation;

questionnaires". Clearly there are some decisions that are best taken by higher level authorities but there are others that are best taken closer to the point of delivery to students, presumably because it is here that the likely impact of such decisions is best understood.

Another theme that stood out was the interaction between the academic side of Universities with the necessary and required support of the Information Technology (IT) section of the same institution. It was clear that the processes generated required the input from several parts of an institution and because of the on-line nature of the solution this required close working between disparate groups "education development department sets out a framework, checklist, it goes through IT-department for working protocols to see if that's all fine". There was also evidence that this relationship changed over time and matured as the course of the pandemic played out with the responsibility for delivery flexing accordingly "the educational department prepared all documentation and coordinated the switch to proctored exams together with the IT department. Along the way, our department had to organise extra support. For the next exam period we are working to give responsibility back to the programmes instead of our small team of educational developers". The involvement in IT in delivering the solutions was also reflected in the extent to which many of the solutions that were found were based on the deployment of either new or existing technology.

To what extent was technology deployed to assist in the delivery of the operational process?

As would be expected, in order to bring about process change the application and deployment of technology featured heavily. A number of themes emerged and it was possible to group these into cognate areas. There were five areas that came up repeatedly, these were:

- Sheer range of solutions that were employed
- Solutions developed in house versus those available commercially
- Deployment of technology –proctoring and plagiarism tools
- Changes that were introduced could increase concern/anxiety amongst students
- Difficulties that were encountered with technology

A substantial number of examples were cited that covered a large range of technology solutions [GP1, GP3, GP7, GP9, GP12, GP15]. These were adopted to assist the operational processes that were devised. The solutions that were devised seemed to partly depend on what aspect of the process was being actioned. So, for instance the use of Zoom was used by one University as a student support and verification tool "the main strategy used included the use of Zoom as a tool to support the student and visual supervision of the process in a synchronous way; Through this, I can verify the identity of the student". Whereas for a second institution there was a process requirement to have an oral examination and so the same Zoom technology was deployed but in a different way "oral examinations are replaced by online "zoom" sessions, not necessarily by multiple choice or written examinations". For other institutions they cited a wider range of technologies, presumably because they had familiarity with these technologies combined with the functionality that they were able to give "It was clear a wide range of technologies were employed: Alternative tools for online assessments used: Panopto, Teams, Canvas LMS (assignments, (peer) assessments, quizzes with or without responses lockdown browser)". It was also clear that respondents were happy to utilise commercially available software whilst others either used "in-house" solutions that was already developed or took the time to (rapidly) develop new additional in-house solutions "development of a completely new application for secure and reliable online exams, AvEx, through the collaborative work of experts in technology and methodology" [GP12]. In some cases, Universities were able to link together both external solutions to those that they devised in-house as in the following Good Practice:

> **External and internal IT solutions at UTPL** (GP2)
>
> The main strategy used included the use of Zoom as a tool to support the student and visual supervision of the process in a synchronous way; On the planned day and time, they entered a virtual room (Zoom) through the evaluation system application (SIETTE), in that room the evaluator verified certain conditions and delivered the login credentials to the system. The evaluator of each room had access to the evaluation computer system (SIETTE), to generate entrance and exit credentials, verify the development of the exams, and certify the development of the exams.

One development that demonstrated a wider perspective than just a single university was reported from Finland and relies on a national based approach to developing a technologically based solution "a national platform for e-exams is in use and being developed further". This example is not an isolated one either and both the TeSLA project mentioned in the introduction and the development and sharing of software solutions is highly encouraging in this regard "there was an EU Cooperation and exchange hosted by RWTH Aachen) with other educational institutions, [allowing development of] open software designed for universities, ensuring ongoing development of software throughout collaboration". It would seem going forward that collaboration between institutions should be developed and enhanced so as to provide common well-worked solutions that all can benefit from.

One aspect of the use of technology that came up repeatedly in the feedback from SIG members was around the technologies for proctoring or for detecting plagiarism by students. It was clear that there was some unease around what level of proctoring to use "the choice was made not to use a hard proctoring method. The cultivation of trust as well as a reflection on the fundamental goal of an exam is important". There were reports that when proctoring software had been utilised then this caused unexpected delays in the processing of students results as there was a requirement to go through large number of recordings in order to check if any student misconduct had occurred. In other examples where video proctoring was used that detected student movement away from their screens it was found that the system was unduly sensitive and so caused "false positives" that required faculty intervention to sort out. However, others reported that their proctoring solution had worked successfully and at large scale too, with the FernUniversität in Hagen noting that "live-proctoring was evaluated on a large scale (6800 test sessions) with pruefster.de (a licensee of ProctorExam) or zoom. Pruefster was connected to our Moodle LMS via LTI". It would seem that solutions that deliver reliable proctoring or that permit accurate and timely detection of plagiarism are high on the list of desirables as we move forward. Many have experienced difficulties with these aspects during the pandemic and there is much evidence around that these are serving as "blockers" preventing a wider scale take-up of on-line solutions as we move post-pandemic. One solution may be that we need a closer alliance between institutions to develop such technology as one representative noted "[we are] waiting for an EU solution for proctoring though we still believe that pedagogy and good assessment design is the solution. We are also waiting to trial TESLA". There were other solutions to potential student misconduct described that did not require the use of proctoring tools and this is something worth investigating, the Open University in the UK showed success by reducing the time available for students to take on-line exams – "they were 24 hours long in 2020 but since then the times have been reduced down to 4 hours and this helped with the mark spread and also reduces cheating".

Many of the changes described in this Chapter were highlighted as potentially inducing anxiety or concerns within the student body. There were many comments reported in this regard. It is unclear whether these concerns already existed within students and just increased or whether concerns were initiated due to the rapid deployment of technologies that students had not been previously exposed to for instance "students found proctoring software very invasive, even though our

procedures and data protection around the recordings were extremely rigid. It was hard to convince students of this" There was evidence that some student concern was potentially misguided as it was felt that student's understanding about what say live proctoring entailed was unclear at best and at worst simply incorrect. Therefore, it would seem helpful that effective communication to students about whatever tools are used and how they are deployed is of extreme importance was we move forward. One solution offered was that "students need to be carefully guided in the 'technical' process to reduce stress. Provide an opportunity for a 'try out' [is also helpful] – [and] give clear instructions and also feedback on what is happening during the process"

Some of the above could be considered to be "difficulties" with the technology but one consideration is that they were just difficulties with the effective deployment of technology. This may be down to the limited time that Universities had in order to make the changes as the lockdowns happened in a very short space of time.

Many institutions reported that difficulties with technology were encountered by both students and staff. Several Universities reported that even where they had undertaken some limited remote exams in the past then their systems were not set up to handle the much larger numbers that needed to use then as the pandemic struck. The larger numbers impacted both the scalability of solutions but also were affected by the capacity of systems to accommodate the larger numbers. Examples included personnel, servers, support, organization and all of these issues were exacerbated by having concurrent examinations within a short time window. Some institutions already had on-line assessments capability but these were designed to handle continuous assessments tasks spread out over many months and were not able to cope with the influx of very large number of examination assessments within a compressed time period.

How did Universities support staff and students whilst delivering the process?

A major challenge that all institutions faced during the pandemic was how best to support both staff and students in a period of extensive change. Clearly delivering this support in a non face-to-face manner added another level of complexity. It was clear that many organisations had undertaken extensive student support and for many this was key to the successful delivery of their on-line assessment. In the final Case Study in this Chapter the Open University of the University of Jyväskylä in Finland highlight what they think is key.

> **Student Support at JYU** (GP8)
> From the main part of their report the authors "conclude that online assessment methods require appropriate student support and technological flexibility. Of these, student support and protection of academic integrity in particular pose the greatest limitations for these methods". They reiterate this point in their conclusion to the Case Study stating that "on line examinations and written assignments call for more support and supervision from the part of educators, and insufficient student support with these methods may be a risk factor for cessation of studies in online higher education".

Some of the support that Universities were offering was reactive but at other points Universities required students to take steps themselves to ensure that on-line assessments stood more chance of taking place successfully. One University made it clear that their institution required that students ensured that they had certain levels of broadband connectivity and that they had access to a minimum level of computer equipment. Some institutions generated support that was equally applicable to both students and staff such as providing technical support via telephone during live examination periods. Although it was noted that this level of support was quite time consuming and generated a large volume of calls.

Information, advice and guidance for decision-making going forward

To conclude this Chapter, we thought it helpful to pose some questions around what organisations should ask themselves if they faced a situation in future around moving to on-line assessment. The first question would be the timescale of the change. Most of the changes reported here were enacted within a very short timescale and this mean there was a tendency to use tools and processes that already existed within the organisations. If time is short then this approach is to be encouraged. If the time window is longer then clearly investing some time in identifying what tools and processes would best fit your university would be helpful. A second question allied to this would be how prepared are the staff for any proposed change? As reported here, some staff in some organisations were quite prepared whilst in others, or even within the same organisation, other staff lacked the knowledge, understanding and skills required to make the change. Even in these cases, with the right support both personal and professional, staff were able to deliver on-line assessment effectively. For instance, it was clear that for many staff at Universities the move to on-line assessment was challenging and help, support and guidance was required at all levels.

There were numerous examples cited where it was clear that a variety of support mechanisms were offered and made use of. One of the most comprehensive came from UniDistance who stated that "we wrote a Vademecum to help faculty move their exams online. We carried out webinars to explain the steps to move exams online. We offered training on the different technologies. Webinars are regularly organised for the teaching teams. We created model exam sections in Moodle so that teachers could try them out (hand in exams, upload documents, quizzes, etc). Many other institutions offered up other examples where staff support and staff development was made available. However, despite the numerous attempts to make things easier for staff it was clear that there was still some way to go in some cases. The following comment sums this up well in terms of what help was put in place but with the understanding that it did not solve all the issues "Lot of supportive documents, protocols proposals, GDPR instructions, use cases presented by experienced teachers to other teachers; still in many ways teachers struggled".

Many examples of personal support of others were also apparent. Examples included were of advice or guidance being given but there were also examples where support of individuals was also given. This included situations where individuals within faculties with lots of on-lien experience partnered with individuals who were less experienced in the delivery of on-line material. Some of the support was set up by the institution and occurred formally whereas other examples demonstrated that informal non-structured support was also effective.

Linking back to the issue of time availability, organisations should question whether taking what they do in a face to face environment and simply converting that to on-line delivery is the most effective approach. There is evidence this approach worked in some situations and not in others and therefore a careful analysis ought to be done before such a change is enacted. From all of our inputs received the forward-thinking nature of institutions has come forward. It is clear the wish to learn from what has worked well during the pandemic and to take forward these elements of learning into our future practise comes through strongly. A final quote which sums up our collective wish to take the best from what has been a difficult time for all of us "We have built a pilot project to evaluate pedagogical challenges with online exams. This will lead to a report and guidelines and final strategy and regulations for next academic year".

Final
Remarks

T he demand for shorter and flexible education is growing as part of further upskilling and re-skilling of continuing education learners within a digitalizing economy. In the past years, the demand for online and distance education and related expertise was even further boosted by the Covid19 crisis, forcing universities to emergency remote teaching. As evidenced by a qualitative force field analysis by the EADTU's E-SLP project partners (2021), more students were attracted by distance education in open universities and MOOC platforms and universities in general had to organize more digital CEPD[i]. This has shown to them unprecedented possibilities and challenges of synchronous hybrid, blended and online distance learning. Frontrunner universities already exploited the potential of digital education in CEPD because it is scalable, accessible, inclusive and flexible.

Most European universities, however, miss the expertise and experience in digital education, as well as institutional frameworks and affordable business models to develop it at the scale of their needs. Universities lack leadership and professional staff to support these innovation processes while this expertise is needed for immediate responses to the demand and the development of future strategies and policies. EADTU is supporting these processes by covering action lines of collaboration and sharing of expertise linked to innovating higher education like the creation of the organizational conditions for developing digital education, including professional support services; promoting quality assurance; recognition for digital higher education; and positioning of digital open and flexible education in the changing pedagogical landscape, in the perspective of the European University 2030.

In this respect we wanted this SIG to look closer into the challenges related to online assessment.

With this report, the SIG has captured members' local expertise in how to design and plan institutional online assessment strategies and the experiences from delivering under the conditions of the Covid19 pandemic and in a post-pandemic world. We were able to make an inventory of challenges, practices and new developments, examples of research and innovation in online assessment, and identified several supportive and non-supportive national policies and frameworks that define the context of assessment for the institutions.

Let us conclude by listing the main takeaways of the chapters:

Assessment Design

- *There is a clear need for greater authenticity and personalization of assessment design.*
- *Choice of flexibility must be included in the assessment design.*
- *Comprehensive instructions and spelling out assessment criteria have gained a new practical meaning.*
- *Although the majority of students are able to work independently, some enjoy support from teachers and other students in forums and online meetings.*
- *Formative evaluation and feedback before final examination works not only as support but also as a way of reducing the motivation for cheating. Learning environments and various meeting applications allow group study and peer support. They also help educators arrange a social and communal aspect to learning.*

Trust, Privacy and Ethics

- *We need to teach our students to be critical of the surveillance society in which we live, not force them to accept it.*

- *Flexible delivery is a key asset of online and distance teaching universities. It could be argued that all is fine as long as students have a choice, as a considerable group of students still prefers to take an exam on-campus.*

Operational processes, technology and support

- *Clearly "all universities are struggling, even open and distance universities, [with things like} verification and proctoring, different levels of competence, scalability of solutions".*
- *No organisation had all the answers to deliver the required operational processes nor had anyone generated a previously prepared process that could swiftly be deployed.*
- *There is a clear wish and need to learn from what has worked well during the pandemic and to take forward these elements of learning into our future practise.*

Online assessment is to be part of an educational system that is becoming more flexible for continuing education and responsive to (global) changes. These developments ask for offering new modes of teaching as well as the ways to assess the progress and achievements of the learners. The ideas, practices and case studies presented in this report demonstrated new thinking, pioneering and open-mindedness regarding online assessment as a fully operational and sustainable part of the educational process, in times of a pandemic situation but certainly also beyond.

As indicated in the introduction of this report, the future of assessment will certainly differ between nations, institutions and even disciplines. Also, we can expect further technological developments that will support and influence the innovation of assessment in the future. Artificial Intelligence will, like in many other sectors, play a prominent part in this. What we all need to do is to ensure that overall, higher education can meet the challenge of delivering "capable, competent and informed citizens adequate to the challenges of a twenty-first century lifetime".

New modes of online assessment can only improve by further collaboration between experts, facilitated by a European overarching approach to guarantee continuous exchange of practices in the application of innovations in online assessment and related research. Therefore, EADTU's Special Interest Group on online assessment will continue to provide the peer support needed to address the challenges of the future and help the community to develop better assessment by learning from each other without the need to re-invent the wheel every time.

By sharing related good practice, institutional strategies and projects and results we also hope to inspire universities European-wide in improving their online assessment strategies and policies. And we will keep adding good practice and institutional strategies on our dedicated website[ii]. This website will further grow dynamically, reflecting the changing challenges and institutional responses in this respect for the years to come. The SIG will be sustained by EADTU and contribute to further community building around assessment strategy, policy and practices.

---

[i] All results of the E-SLP project can be found on https://e-slp.eadtu.eu/outcomes
[ii] https://online-assessment.eadtu.eu

References

Aznarte, J. L. (2020). Consideraciones éticas en torno al uso de tecnologías basadas en datos masivos en la UNED. *RIED-Revista Iberoamericana De Educación a Distancia*, *23*(2), 237–252. https://doi.org/10.5944/ried.23.2.26590

Aznarte, J. L., Melendo Pardo, M., & Lacruz López, J. M. (2022). Sobre el uso de tecnologías de reconocimiento facial en la universidad: el caso de la UNED. *RIED-Revista Iberoamericana De Educación a Distancia*, *25*(1), 261–277. https://doi.org/10.5944/ried.25.1.31533

Boud, D. 1995. "Assessment and Learning: Contradictory or Complementary?" In Assessment for Learning in Higher Education, edited by P. T. Knight, 35–48. London.

Carless, D. (2019). Feedback loops and the longer-term: towards feedback spirals. Assessment & Evaluation in Higher Education, 44(5), 705–714.

Edwards, C., Holmes, W., Whitelock D., & Okada, A. (2018). Student Trust in e-Authentication. In Proceedings of the 5th Annual ACM Conference on Learning at Scale, 1–4. https://doi.org/10.1145/3231644.3231700

González, E. G., & de Hert, P. (2019). Understanding the legal provisions that allow processing and profiling of personal data - an analysis of GDPR provisions and principles. ERA Forum, 19, 597–621. https://doi.org/https://doi.org/10.1007/s12027-018-0546-z

Janssen, J. P. W., Guerrero Roldan, A., Hermans, H. J. H., & Noguera, I. (2019). TeSLA e-Assessment Model & Framework. TeSLA. https://research.ou.nl/ws/portalfiles/portal/12344772/TeSLA_E_assessment_model_framework.pdf

JISC (2020). The future of assessment: five principles, five targets for 2025. https://repository.jisc.ac.uk/7733/1/the-future-of-assessment-report.pdf

Emerge and JISC (2020). From 2020s quick fixes to future transformation. https://repository.jisc.ac.uk/7854/1/assessment-rebooted-report.pdf

Kevin Ashford-Rowe, K, Janice Herrington, J. and Brown, C (2014) Establishing the critical elements that determine authentic assessment, Assessment & Evaluation in Higher Education, 39:2, 205-222, DOI: 10.1080/02602938.2013.819566

Lyon, D. (2017). Surveillance Culture: Engagement, Exposure, and Ethics in Digital Modernity. International Journal of Communication, 11(0), 19.

Muravyeva, E., Janssen, J., Specht, M., & Custers, B. (2020). Exploring solutions to the privacy paradox in the context of e-assessment: informed consent revisited. Ethics and Information Technology, 22(3), 223–238. https://doi.org/10.1007/s10676-020-09531-5

Muravyeva, E., Janssen, J., Dirkx, K., & Specht, M. (2020). The role of trust in personal data sharing in the context of e-assessment and the moderating effect of special educational needs. Proceedings of the 28th Conference on User Modeling, Adaptation and Personalization, 328–332. https://doi.org/https://doi.org/10.1145/3340631.3394876

Meijs, C., Prinsen, F. R., & de Laat, M. F. (2016). Social learning as approach for teacher professional development; how well does it suit them? Educational Media International, 53(2), 85–102. https://doi.org/10.1080/09523987.2016.1211333

Nielissen, G. (2021). Studeren in coronatijd. Thuistentamens en andere aspecten van studeren in de coronaperiode. Open Universiteit. Expertisecentrum Onderwijs (ECO).

Okada, A., Whitelock, D., Holmes, W., & Edwards, C. (2019). e-Authentication for Online Assessment: A Mixed-Method Study. British Journal of Educational Technology 50(2), 861–875.

Race, P., S. Brown, and B. Smith. 2005. 500 Tips on Assessment. 2nd ed. London: Routledge.

Pataraia, N., Falconer, I., Margaryan, A., Littlejohn, A., & Fincher, S. (2014). "Who do you talk to about your teaching?": networking activities among university teachers. Frontline Learning Research, 2(2), 4-14. https://doi.org/10.14786/flr.v2i2.89

Penketh, C., & Beaumont, C. (2014). 'Turnitin said it wasn't happy': can the regulatory discourse of plagiarism detection operate as a change artefact for writing development? Innovations in Education and Teaching International, 51(1), 95–104. https://doi.org/10.1080/14703297.2013.796721

Ross, J., Macleod, H., 2018. Surveillance, (dis)trust and teaching with plagiarism detection technology, in: Proceedings of the 11th International Conference on Networked Learning 2018.
Sietses, L. (2020). Whitepaper online proctoring. Questions and answers at remote surveillance. SURF. https://www.surf.nl/files/2020-06/surf-whitepaper-online-proctoring_en_mei-2020.pdf

Shute, V. J., Y. J. Kim. 2013. "Formative and Stealth Assessment." In Handbook of Research on Educational Communications and Technology, 4th ed., edited by J. M. Spector, D. M. Merrill, J. Elen, and M. J. Bishop, 311-321. New York: Springer Science Business Media.

Wilkowska, W., & Ziefle, M. (2011). Perception of privacy and security for acceptance of e-health technologies. Proceedings of the 5th International Conference on Pervasive Computing Technologies for Healthcare, PervasiveHealth 2011, 593–600. https://doi.org/10.4108/icst.perva sivehealth.2011.246027

Zwagerman, S. (2008). The Scarlet P: Plagiarism, Panopticism, and the Rhetoric of Academic Integrity. College Composition and Communication, 59(4), 676–710.

Annex I:
Good Practices √

GP1

Assessment approaches at the UAb: the present and the future

Diogo Casa Nova

Universidade Aberta | Portugal

In this good practice, we present Universidade Aberta´s pedagogical approach to assessment design. Created in 2007 and based on its pedagogical model, this approach has been validated and used throughout the years with success. The approach is introduced both in terms of its pedagogical reasoning and in terms of how it informs regulations and practices. The chapter then moves to reflections about the challenges and opportunities that Covid19 brought to the institution culminating with our thoughts about the future and how we can adopt an institutional approach for moving the assessment fully online.

The Present

The Universidade Aberta is the only state-funded distance learning higher education institution in Portugal. Although it has now 33 years old it only became fully online in 2008 with the development and implementation of its virtual pedagogical model (VPM) (Pereira et al., 2007). Building on existing best practices in online and distance learning, the VPM has become, throughout the years, the main foundation of how the University operates both in terms of the course units design and development choices as well as the delivery and instructional practices. The VPM is oriented in 4 main principles: student-centred, the flexibility of choice, interaction, and digital inclusion.

Included in the VPM, there are a set of guidelines and rules supporting assessment design and delivery. The first main rule is that all course units must allow a degree of choice in terms of the assessment. Students can choose from being continuously assessed – in which they will have to submit at least three elements per semester per course unit, or through a final exam - when the student chooses to be assessed in a single moment and typically through written tests. Exams were typically done face-to-face in local exam centres across the country and abroad. The UAb has historically supported this flexible option of assessment because of the need to respond to the principle of flexibility, one of the guiding principles of the VPM (Pereira et al., 2007). Continuous assessment elements (also known in UAb as e-folios) have always included a formative element in the form of feedback. As part of assessment design, course unit lecturers aim to integrate the three elements of assessment to enable a sense of relevance in the feedback provided for future assessments. This is the element of single-loop feedback proposed by Carless (2019) that represents how students learn when they work on assessments as part of their course units or programmes of study. For the author, a loop implies an endpoint of the feedback; it can be at an assessment/course unit level (single-loop) or at a course level (double-loop), which would represent a multitude of opportunities in different assessments; conversely, a spiral would imply feedback that is more ongoing and developmental (Carless, 2019).

For the UAb model, the single-loop feedback is the approach taken due to both the student background and the time they take to do their course. UAb students have an average of around 40 years old, they are typically working students and they have restarted their education after a long period of pause. Students will usually engage in their learning as part-time students taking an average of 5 years to finish their undergraduate degree. All of this suggests that UAb students prefer to receive feedback that has an immediate impact on the next assessment. Underlining the commitment of the relevance given by UAb to continuous assessment, the student can use individual e-folios marks as credits so that they can be used in the following academic year (). Annually, about 150,000 assessment elements are submitted to the UAb e-Learning platform with various types and formats that serve to fulfil the basic requirement of the pedagogical model. To complete a degree at the UAb, a student who chooses continuous assessment will have to take at least 90 elements of assessment - there are 30 course units (10 per year) and within each course unit at least 3 elements of assessment (Mendes, et al. (2019).

As with the exam option, and before the pandemic started, the students that chose the continuous assessment path would also need to take a face-to-face assessment which would come after the two continuous e-folios and normally at the end of the semester – the global assessment. Importantly, students could only take the global assessment if they surpass the two continuous assessments with higher a mark higher than 3.5 out of 8 (figure 1).
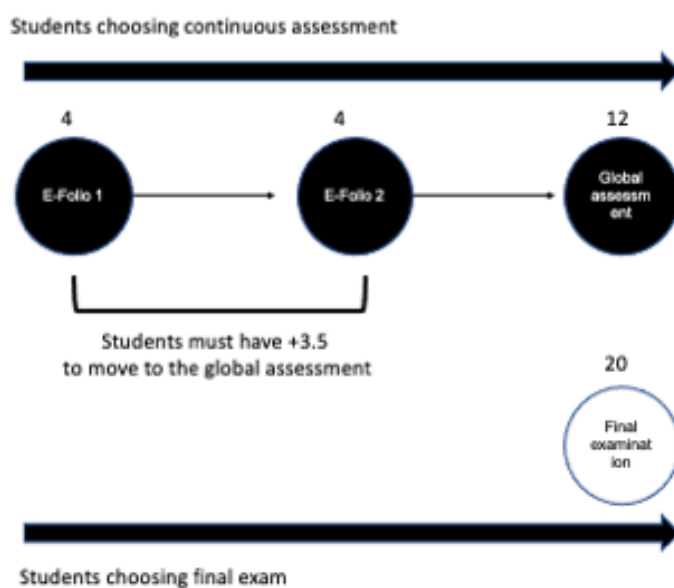
Figure 1 – assessment model at the UAb for 1st cycles

Although it may be argued that UAb is over assessing students, this approach was taken because of three main reasons.

- Assessment points are seen as important to signpost to students what they need to learn and how they are doing in each course unit.
- Assessment points allow us to monitor students´ learning and ensure that dropout risks are anticipated.
- It creates a robust assessment ecosystem which was seen as important due to the lack of credibility given to distance education in the country in 2008 when the model was adopted.

This approach links to how the university operates both in terms of regulations and in terms of its systems and workflow. For example, assessment dates and criteria are validated in the course unit guide and in the learning card. The learning card includes the structure of the assessments (the two e-folios and the global assessment) with the corresponding potential marks (figure 1). Those are validated annually by the central department to ensure that the pedagogical model adopted is integrated into each course unit master instance in Moodle. After validation, the different cohorts of students are then generated in each Moodle instance, and assessments in all different instances cannot be changed anymore during the semester. This approach enables the University to transport all marks from Moodle to the Student Academic System in one go using an automatic workflow as all cohorts will be using the same structure. This consistency in assessment is beneficial for the student and the lecturer (it allows transparency and consistency in the assessment processes) and for the institution (it facilitates digitization and efficient and error-free processing of grades in the Academic Portal).

Looking at the future

Over the years this logistical organisation has not been immune to the existence of some obstacles and challenges, particularly with students who live abroad or in regions more distant from urban centres and who must go to distant examination centres, which are not always easily accessible, and which therefore entail associated costs of travelling to take exams. This is an area that the UAb has been discussing with the Portuguese Secretary of State for Communities, but it has not yet been possible to create alternative mechanisms for holding exams to the frustration of students that live abroad.

Covid19 brought us challenges with the digitisation of the assessment process but opened-up new opportunities. As with other institutions, we needed to move swiftly all face-to-face encounters with our students. For a traditional university, this would imply teaching, support, social activities, and of course assessment. For the UAb the main challenge was the global assessment and the final exams. Those were mainly done in exam centres that needed to close during lockdown which coincided with assessment periods. The University needed to move to online submissions of exams and to adapt to new challenges. That of course brought challenges in assessment designs particularly as some were written exams, but also provided a range of new opportunities to fully respond to our principles of a student-centred institution and flexibility of choice. Students supported this option and enjoyed this new approach. Lecturers were able to adapt to new assessment strategies building new forms of assessments and the average grades across different courses didn't change significantly.

We are now looking at making a final decision of moving completely online including for students that chose the final examination path. That however will require some form of online proctoring, identity certification, staff development, new regulations and data protection policy and, of course, working side-by-side with students to develop new approaches to online assessment.

As an institution, we are committed to our principles, and flexibility is a key element of distance education and one that our students are particularly fond of due to their background. Having a fully online assessment experience will ensure they can do all their learning in their home or in their place of choosing. Providing that we can ensure that the assessment is robust and trustworthy, we believe we can align ourselves to our principles and to our students' expectations.

References

Carless, D. (2019). Feedback loops and the longer-term: towards feedback spirals. Assessment & Evaluation in Higher Education, 44(5), 705–714.

Mendes, António Quintas, Glória Bastos, Lúcia Amante, Luísa Aires, and Teresa Cardoso (2019). Virtual pedagogical model: development scenarios. Universidade Aberta

Pereira, A., Mendes, A. Q., Morgado, L., Amante, L., & Bidarra, J. (2007). Modelo pedagógico virtual da Universidade Aberta: para uma universidade do futuro. Universidade Aberta.

El modelo de "evaluación en línea controlada" de la Universidad Técnica Particular de Loja

Luis Moncada Mora, Duval Quezada Chávez and María José Rubio Gómez
Universidad Técnica Particular De Loja | Ecuador

Introduction

The Private Technical University of Loja (UTPL), in accordance with the provisions of the Academic Regime Regulation issued by the Council of Higher Education (CES), determines that the evaluation of learning is a key element of the educational model because it allows to know the performance of students during their training process. Learning activities at UTPL are managed considering the following components:

- Learning in contact with the teacher
- Autonomous Learning
- Practical-experimental learning

The student evaluation system is characterized by being formative, continuous and summative; and in it two moments of evaluation are distinguished: formative and summative evaluation, and recovery evaluation.

In the autonomous learning component, the "face-to-face assessment" is included. In general, it is established that it will be developed, on the planned and socialized dates through an academic calendar, and will be physically applied at the headquarters and support centers.

On March 16, 2020, the Ecuadorian state, according to decree 1017, declared: "the state of exception due to public calamity throughout the national territory, due to confirmed coronavirus cases." This provision restricted and suspended all the possibility of mobilization, in such a way that the institutions had to modify their activity favoring management with telematic resources. In accordance with what is established by the Ecuadorian state, the plenary session of the Higher Education Council (CES) approved a transitory regulation for the development of academic activities in Higher Education Institutions (IES). This regulation sought to guarantee the right to education by making the processes established for HEIs more flexible.

The pandemic conditions forced the UTPL to make modifications in the way of applying face-to-face evaluations, moving from face-to-face assistance to synchronous assistance using telematic means. This change implied the design of a model for the application of controlled online evaluations, in this document we present the results of the applied model and its main results, which in general are positive for all: Students, teachers and institution.

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Methodology and designed work models designed for online assessment

Controlled online assessment

The "controlled online assessment" model integrates the necessary and sufficient elements so that the student enrolled in the UTPL can take the exams, which before the pandemic had a face-to-face format.
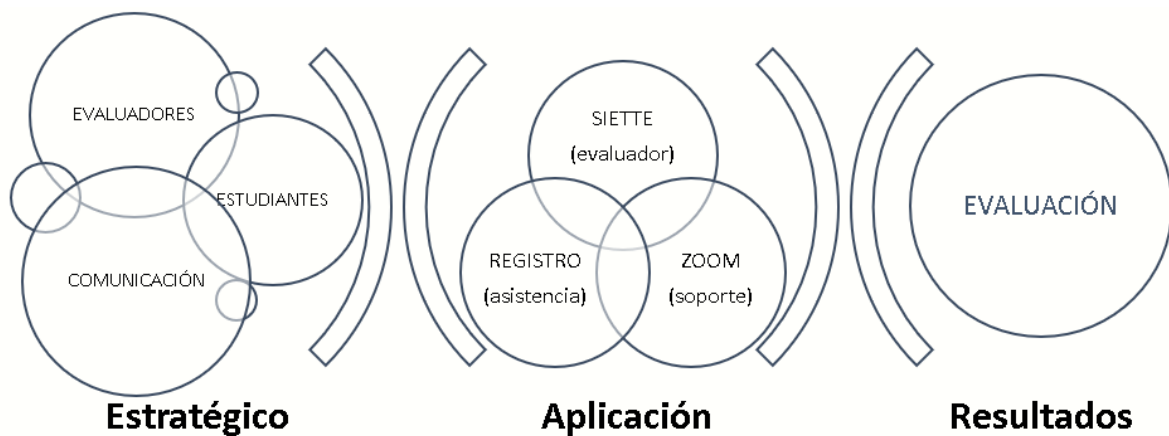
Figure N ° 1 shows the model with its components:

- Within the strategic component, three elements were considered: students, evaluators and communication. Regarding the application, we worked with technological systems that allowed an adequate interaction, gave reliability to the process, and guaranteed that the results are on time, complete and correct.
- The main strategy used included the use of Zoom as a tool to support the student and visual supervision of the process in a synchronous way; Through this, I can verify the identity of the student, deliver the access credentials to the exams generated in the SIETTE evaluation system - this system has been used by the UTPL since 2016. It has multiple advantages, but its simplicity stands out and versatility - and finally register your attendance to the process and the incidents if any.
- As a result of these actions, the results of the evaluation were obtained and the grades were published to the students in a timely manner. Likewise, once the results of the evaluations were published, the digital file of the exam was sent to the student's institutional email, which contains the evaluation questions given by the student with their respective answers.

Controlled online evaluation

The online assessment events required detailed planning that covered the needs before, during and after the administration of the exams. The planning was developed in harmony with the strategic model proposed and accepted by the institution. The key elements of planning are summarized below:

Previous	During	After
• Students to be evaluated • Communication • Schedules • Exams • Settings • Systems • Support and • supervision • Evaluators • Training • Contingency • Academic services	• Process monitoring • Management of problems • raised • Event support • Monitoring students and systems	• Evaluations rendered • Grade management • Results or qualifications • Publication of results • Return of exams • Review of problems • raised in the event • Academic services

The planning was aimed at covering the various scenarios that the heterogeneous profile of the student raises. In an online evaluation model, the particular conditions of individuals become more evident. Likewise, computer systems and support in the processes for the main actors - students and evaluators - are a priority in planning.

During the evaluation event, the student's experience was sought to be positive and for this the monitoring and support was permanent through a group of people with sufficient knowledge in the processes and systems. The assistance was at the moment and the group that needed help did not reach 3% of the entire population.

Once the event was held, the biggest challenge was the publication of the results, in the shortest time possible - the waiting time was cut in half - complete and correct. The information management also allowed to determine risk scenarios, mainly associated with the quality of the internet with which the student was evaluated.

Attention and support in the evaluation processes

The online evaluation, under the model used by the UTPL, required dedicated work to attend to the needs of students and evaluators. In the case of students, minimum conditions of connectivity and equipment were requested, despite this and due to the diverse conditions - students connected from the 24 provinces of Ecuador, in urban and rural areas, and students abroad - a service and support model, always with the presence of an advisor at all times.

The following is the care scheme:
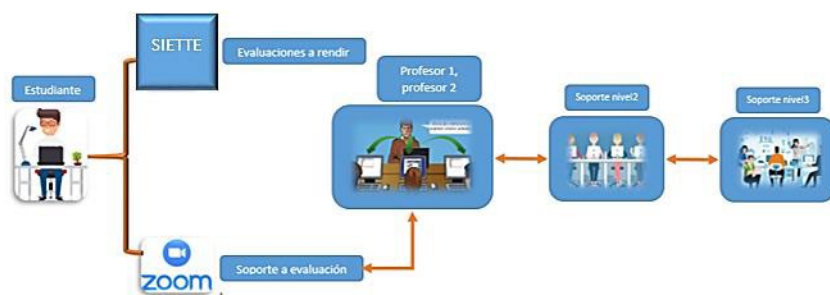
Figure N ° 2: Support Scheme in the OnLine evaluation process.

The students, according to institutional regulations, were informed of the conditions of the evaluation process - similar to those established in the presence -. On the planned day and time, they entered a virtual room (Zoom) through the evaluation system application (SIETTE), in that room the evaluator verified certain conditions and delivered the login credentials to the system. For the cases of students who reported problems, the evaluator had a protocol that included the support of specialized supports in processes and computer equipment.

The evaluator of each room had access to the evaluation computer system (SIETTE), to generate entrance and exit credentials, verify the development of the exams, and certify the development of the exams. The evaluator configured the room in such a way that the interaction with the evaluated person was mainly written.

The systems and other technological resources had the capacity to meet the demand of students and other users according to the planning of the event.

Results

Assessment results and grades were released to students in a timely manner. The information on the evaluation application events carried out in 2020 is presented in the following table.

PERIOD	No. OF EVALUATIONS GENERATED	No. OF ASSESSMENTS PERFORMED	No. OF NON-RENDERED ASSESSMENTS*
April-August 2020 First evaluation	156287	129387	26900
April-August 2020 Second evaluation	139738	129540	10198
April-August Recovery assessment	21778	11303	10475
October 2020- February 2021 first evaluation	164564	152629	11935
* The evaluations not taken correspond, mainly, to students who did not appear because they re-planned their events..			

Elaboration: The Authors.

The good quantitative results - not an analysis of academic performance - were the result of:

- Model established in all its components.
- Process management for the different moments of the evaluation.
- Repowered computer systems.
- Regulatory deployment and adjusted to online evaluation.
- Effective communication for students and other actors.
- Integration of the undergraduate and graduate levels in the same evaluation model.

Results

The online evaluation, under the model proposed by the Private Technical University of Loja, preserved the qualities of efficiency and effectiveness that have characterized the face-to-face evaluation of the distance study system. Having an online evaluation model with the characteristics described in this document has generated confidence in the students, because they have felt the permanent support of their evaluators. Likewise, the model made it possible to cover the diversity of scenarios that were generated from the heterogeneous profile of the thousands of students evaluated.

References

Ley Orgánica de Educación Superior LOES (2020). Ley 0. Registro Oficial Suplemento 298 de 12-oct.-2010. Última modificación: 23-oct.2020.

Reglamento a la Ley Orgánica de Discapacidades (2017). Viernes 27 de octubre de 2017 Suplemento Registro Oficial Nº 109 http://progressservices.com.ec/wp-content/uploads/2017/11/Decreto_194.pdf

RRA (2020). Reglamento de Régimen Académico RPC-SO-08-Nº 111-2019- Consejo de Educación Superior (25 agosto).

https://procuraduria.utpl.edu.ec/sitios/documentos/NormativasPublicas/Reglamento%20de%20R%C3%A9gim en%20Academico%202020.pdf UTPL (2019). Instructivo de admisión y fortalecimiento para estudios de grado y posgrado. Vicerrectorado Académico y Vicerrectorado de Modalidad Abierta y a Distancia.

UTPL (2019). Políticas de Acción Afirmativa. (24/01/2019)

Examples of Digital Tools and Support at Tampere University of Applied Sciences

Kirsi Saarinen | Tampere University of Applied Sciences | Finland

Tampere University of Applied Sciences and Tampere Universities provide teachers and other staff a variety of tools and assistance for online teaching and assessment.

Introduction

At Tampere University of Applied Sciences teachers are provided with a many tools and types of assistance for online teaching and assessment. The guidelines are reviewed regularly and kept up to date to help teachers, for example, to select online assessment tools that meet their needs.

Good practices

Digital tools for teaching

Tampere universities and Tampere University of Applied Sciences provide teachers and other staff members with the range of digital tools, which can be used for teaching, learning, and assessment. The tools can be divided into three categories: 1. presentations, materials, sharing information; 2. learning environments and tools and 3. assessment, feedback, and demonstration on learning.

The users are helped to select a proper tool through a variety of questions e.g., how will students be required to demonstrate their learning? What working methods could be used to limit the number of written assignments at the same time ensuring that students can demonstrate their learning and achieve the learning outcomes?

The section of assessment, feedback and demonstration on learning includes three parts. These are 1. taking exams, 2. assignments and 3. supporting progress. Each part includes examples of tools that are described. In the section of 'taking exams', for example, Exam, Moodle: Quiz and O365: Forms are given as examples. These all include suggestions for utilization. Forms, for example, is a tool for creating quizzes, assignments, and feedback surveys. In addition to this more general description, teachers are provided with more detailed instructions i.e., a separate link to the Digital toolkit.

The digimentor network

Across Tampere universities (Tampere University and Tampere University of Applied Sciences. digitalisation is promoted by a peer support network of digimentors. They not only encourage to utilize digitalization but also offer support for the use of digital tools as well as distribute good practices. Digimentors are teachers from the faculties and schools they work in. They have pedagogical knowledge in their field and are accessible for their colleagues.

Teaching and Learning Centre

The Teaching and Learning Center (TLC) of the Tampere Universities community is a network that brings together pedagogical expertise and the information and services needed by teachers including e.g., feedback and (online) assessment.

References

Tampere University of Applied Sciences. (2021, November 11). Digital tools for teaching. https://intra.tuni.fi/en/handbook?page=23454

Teaching and Learning Centre. (2021, December). Tampere University and Tampere University of Applied Sciences. https://www.tuni.fi/tlc/en/home-en/

Continuous Assessment Method on Engineering Physics Courses at Tampere University of Applied Sciences

Kirsi Saarinen

Tampere University of Applied Sciences (TAMK) | Finland

At Tampere University of Applied Sciences subject teachers have developed assessment methods for online courses. Engineering physics teachers have designed online assessment methods for their own engineering physics courses. One of these is a continuous and flexible assessment method that is used and adapted by physics teachers on their own online courses.

Introduction

Engineering physics teachers felt that a more flexible assessment method was needed. Teachers decided to develop a more continuous and more student-centred way to assess students on online physics courses. The aim was also to reduce teachers' workload regarding assessment. The method is currently used and adapted on online engineering physics courses at Tampere University of Applied Sciences.

Background

Traditionally there are three types of assessment methods used. The first type of assessment is to use one final exam. Homework assignments help students to prepare for the final exam. The second method is to have homework assignments as a part of assessment. The assignments give points which are included in the sum of the total points. The third type of assessment divides the course content into two parts: a mid-term exam and a final exam. These are supplemented with homework assignments. According to the physics teachers these types of assessment were not that flexible, and they did not encourage students to proceed at their own speed. Therefore, a more continuous and more student-centred way was needed. Physics teachers decided to add a continuous assessment part to the final assessment. This continuous assessment part consisted of both weekly exams and measurement assignments. The problem with this type of assessment was the heavy assessment load of weekly exams. Students also asked for the possibility to retake weekly exams.

Good practices

Physics teachers modified the online course, and it was piloted. The weekly exams were replaced with the automated basic level exam. Students could take this online exam as many times as they wanted. They could also choose the time when to take it. With the basic level exam alone, it was possible to pass the course.

The automated basic level exam reduced physics teachers' work in arranging retake exams. Students spent for a considerably long time in attempting the basic level exam. Currently students are allowed only one attempt per day to encourage them to study between the attempts.

References

Suhonen, S. & Tiili, J. (2021, August 31). Continuous, versatile, and flexible assessment method on engineering physics courses [Video]. YouTube. https://www.youtube.com/watch?app=desktop&v=hF0Uekemq4s

Online Proctoring

Ekaterina Muravyeva and José Janssen

This good practice describes the approach taken at OUNL to enable reliable online assessments by means of remote proctoring.

Open Universiteit | Netherlands

Introduction

When the pandemic started, higher educational institutions were pushed to look for solutions to continue providing their educational services, without delay and the loss of quality. At the Open University of the Netherlands (OUNL), students were provided with an opportunity of online assessment using online proctoring.

Good practices

Online proctoring at OUNL

Online proctoring is a form of location-independent digital assessment that involves online invigilation using special software (SURF, https://www.surf.nl/en/onlineproctoring). At OUNL online proctoring takes place using software that allows 'live' proctoring as well as 'record-and-review' proctoring, i.e., a recording is saved and assessed later. OUNL so far has only used the 'record-and-review' option making use of webcam recordings, screen recordings, sound recordings and internet visits. For the room scan, prior to the assessment, a second camera is required. No lockdown browser is used.

For the initial review of the recordings, artificial intelligence is applied to 'flag' possible irregularities. All flagged fragments are subsequently assessed by a reviewer. Where irregularities are detected/confirmed by the reviewer, the recordings need to be sent to the Examination Board for further investigation.

OUNL started out from the principle that setting up the system of online assessment, the interests of students are central, meaning: [1] there should be a balance between the domain specific quality of the examination and measures taken to protect the quality of the assessment process; [2] tools used must be user-friendly. OUNL is responsible for providing information and technological solutions to the students to make online assessment possible. However, a basic requirement is that students possess a PC/laptop, webcam and internet connection.

Education and examination regulation

When using online proctoring it is essential that students are informed beforehand about the procedures and what irregularities may be further investigated. The Education and examination regulation – established by the Examination Board clarifies the concepts of fraud, plagiarism and irregularities. Irregularities are defined as "(…) any event as a result of which the knowledge and ability of the candidate cannot be determined or the quality of the interim or final examination cannot be guaranteed" (Education and examination regulation, 2020).

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Students find an information tile on their OUNL dashboard providing all information about online exams at home, as well as access to these exams in one place (see screenshot below).
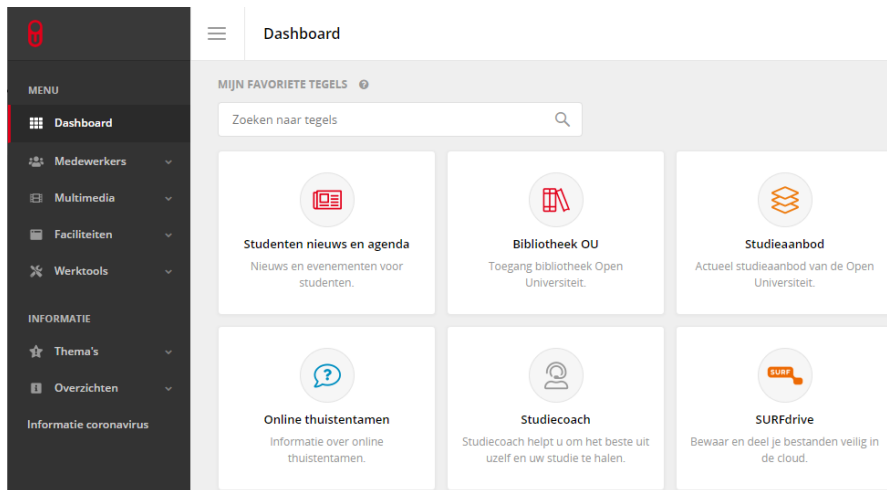
For students it is of course important to be informed about the rules and what constitutes a violation of the rules so that they can feel confident during the exam. This is especially important since there is no invigilator present who can take remedial action in case of irregularities - e.g. notify the student that no books are allowed lying on the desk - as might be the case with an exam at the study centre or at home with 'live' proctoring. Therefore, it is important also with a view on fairness, to clarify the rules to students every time before an exam starts.

Student support in e-assessment software

In addition, the proctoring software provides various student support opportunities prior to and during the exam:

- a test exam: during this test students can become familiar with the procedure and check whether their room meets the requirements. However, the number of tests is restricted in order to prevent 'experimenting with fraud';
- a system check: students have to check the system before the exam starts. The student will be given access to the exam only if this check has been successfully completed;
- a clear step-by-step instruction about the procedure (ID-check, room scan, materials check, and wrist/ear check) including a video instruction.

Trust in the system

Reasons why students do not choose for a 'home' exam, even if they would like to, are varied: because they do not have a suitably quiet environment at home, because they are ill-equipped technically or do not feel sufficiently technically skilled, or because they are afraid of making mistakes that will lead to the exam being declared invalid (Nielissen, 2021). This is undesirable. Every student should feel safe taking an exam at home.

The OUNL is therefore responsible for organizing the examination process in such a way that: [1] every student is able to provide recordings of sufficient quality so that there is no doubt regarding the validity and students can trust the system; [2] the Examination Board is able to carry out its tasks: to investigate irregularities detected by the system, and to formulate sanctions if necessary.

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Legal grounds for personal data processing

Last but not least, based on a court decision (De Rechtspraak, 2020), during the pandemic the legal ground for personal data processing in the frame of online proctoring at the OUNL was a public interest. After the pandemic it will be students' consent as students will have a choice: taking an assessment at the study centre or at home. Both grounds are included (along with several others regarding other purposes) in the corporate privacy statement of OUNL (English version).

Consent is "any freely given, specific, informed and unambiguous indication of the data subject's wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her" (art. 4 GDPR). An informed consent procedure has two purposes: [1] providing relevant information to students through an information letter, and [2] documenting students' consent through a consent form.

The GDPR establishes minimum information requirements (art. 13 and 14 GDPR). The template provided in the Appendix provides a full overview as well as instructions for filling it out (see also: Muravyeva et al., 2020). However, meeting these requirements does not necessarily mean information is complete and sufficiently clear to everyone. Therefore, ideally, when presenting the information letter there should be enough time left to consider the consent decision and make further enquiries through contact details included.

Furthermore, rec. 39 GDPR requires information to be "easily accessible and easy to understand, and that clear and plain language be used". Plain language means that people can find information they need, understand it from the first time they read it, and use this information to perform a task, in the case at hand: take an informed decision (Redish as cited in Schriver et al., 2010). Art. 12 GDPR provides further suggestions regarding transparent information and communication, including that information "may be provided in combination with standardised icons in order to give in an easily visible, intelligible and clearly legible manner a meaningful overview of the intended processing".

A consent form is usually attached to the information letter and replicates the key points to ensure understanding. To record consent students can be asked to sign a paper or click a button in a web-form. When sensitive data (such as biometric data for identification in e-assessment) are collected then students need to provide an explicit consent meaning there should be a checkbox for this type of data in a consent form which needs to be explicitly ticked by a student.

References

Nielissen, G. (2021). Studeren in coronatijd. Thuistentamens en andere aspecten van studeren in de coronaperiode. Open Universiteit.

Muravyeva, E., Janssen, J., Specht, M., & Custers, B. (2020). Exploring solutions to the privacy paradox in the context of e-assessment: Informed consent revisited. Ethics and Information Technology. https://doi.org/10.1007/s10676-020-09531-5

Open Universiteit. Examenreglement 2020-2021 (2020).

Open Universiteit. Proctorbeleid Open Universiteit – concept versie 0.5.1 (2021).

Rechtbank Amsterdam. (2020, Juni 11). Uitspraken. Opgehaald van De Rechtspraak: https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBAMS:2020:2917

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN

Schriver, K., Cheek, A. L., & Mercer, M. (2010). The research basis of plain language techniques: Implications for establishing standards. Clarity, 63, 26–33. Retrieved from http://clarity-international. net/journals/63.pdf

Appendix 'Template for an information letter and consent form'

Information letter

1.General information

1.1 Purpose(s). Your personal data is requested for the following purposes…

[describe the context and purpose(s) of personal data processing, e.g., purpose of research, technology used, learning services provided, etc.]

1.2 Personal data type(s). The following type of personal data is requested…

[specify in detail all sensitive (e.g., images of face, video recordings or specific health data) and/or non-sensitive data (e.g., name, age or date of birth)]

1.3 Storage period. Start and end date…

[specify a date or occasion when storage starts, and a period of time or end date when storage ends]

1.4 Data controller(s). Name of a person / entity and contact information…

[introduce the data controller, e.g., a person or entity determining the purpose and means of personal data processing]

1.5 Data processor(s). Name of a person / entity and contact information…

[introduce the data processor, e.g., a person or entity processing personal data on behalf of the data controller].

1.6 Voluntariness. Sharing your personal data for the purpose(s) explained above is entirely voluntary. You can withdraw your consent at any time without giving a reason.

1.7 Consequences. Consenting will mean… Not consenting will mean…

[explain consequences of (not) sharing personal data]

2.Data subject rights

2.1 The right to delete. You can request to delete personal data collected from you when, for instance, it is incorrect.

2.2 The right to portability. You can request provision of your personal data in a format that allows you to use this data in a different setting.

2.3 The right to object. You can submit a complaint when, for instance, processing of your personal data demonstrates a risk situation for you.

2.4 The right to access. You can request information about the processing of your personal data including a copy of personal data that is under processing.

2.5 The right to correct. You can request a correction of your personal data when processing involves incorrect or incomplete personal data.

2.6 The right to restrict. You can request to restrict processing of your personal data when, for instance, legal grounds (such as consent) for processing should be investigated.

3.Contact information

3.1 For additional information, please, contact…

[introduce the contact person and provide contact details]

3.2 To exercise (one of) your rights, please, contact…
[introduce the contact person and provide contact details]

3.3 Data protection officer…
[introduce the Data protection officer and provide contact information]

3.4 Data protection authority… *[provide contact details]*

Consent form

I read the information and had an opportunity to ask questions. I consent to my personal data being processed for the purposes described *[recap]*

Name:

Date of birth:

Signature:

A copy of the signed informed consent form will be made available to you for your own use through…

[explain how the signed informed consent form will be made available, e.g., e-mail, paper copy]

Moodle test activity pilot project

L. Amante; M. C. Pinto; I. Oliveira; D. Casa Nova

Universidade Aberta | Portugal

The pandemic caused by the SARS-COV-2 coronavirus brought about deep changes in the functioning of society in general, and confronted higher education institutions with several challenges, forcing them to rethink the assessment process of their students as it is based on face-to-face tests. Universidade Aberta (UAb) has promoted a deep reflection about the changes to be introduced in this field and decided that all 1st cycle students' final tests, conducted face-to-face until the end of February 2020, would be conducted remotely and submitted through the Moodle platform, after the necessary technical changes to make this resolution possible. In this context, the Vice-Rector of UAb, responsible for innovation and quality, led the delivery of a pilot project in which the final assessment, in a restricted set of curricular units, was done using the "Moodle Test" tool.

Introduction

"Test Activity in Moodle", was a pilot project promoted by the Universidade Aberta's rectory, aimed at using the Moodle Test (MT) tool to conduct online tests, replacing the face-to-face exams and/or submissions of final electronic written tests, on the Moodle platform. The project involved seven curricular units (CU) from four departments of the Universidade Aberta (UAb), a Portuguese public university of distance education. The project objectives were to i) promote among the participating teachers the necessary skills to develop, monitor, and evaluate, successfully, online tests using the Moodle platform; ii) implement a viable and robust process that would guarantee the academic integrity of the online tests; and to iii) evaluate the success of the process in comparison with previous practices.

A team of researchers from the Distance Education and Elearning Laboratory (LE@D) undertook the evaluation of the project to respond to the 3rd objective, identifying its most favorable aspects, as well as critical aspects to be improved.

Good practices

The UAb has maintained over the years, and as part of its undergraduate degrees, a final face-to-face assessment (Global e-folio or exam). The students enrolled in the continuous assessment modality will also have to complete other assignments in the form of E-folios. The students that chose not to follow a continuous assessment modality will take a high-stake test (exam) at the end of the year (Pereira et al. 2007). Given that it was impossible to carry out face-to-face assessments during the pandemic, the UAb started moving its final assessments online using the Moodle platform, the platform where the CUs are delivered. In this form of assessment, an assessment brief/matrices and answer sheet are made available to students. The student, at the end of the set time, submits the test through the specific device created for this purpose.

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

In the 2nd semester of 2021, a pilot project was developed to explore the use of the Moodle Test tool (MT) in these final exams replacing the existing procedure, seeking to optimize the whole process.

Method

The team responsible for the evaluation of this project defined a mixed analyses methodology (Creswell, 2003), adopting instruments of a qualitative (interviews and document analysis) and quantitative (questionnaire survey) nature, and established four stages in the process. Stage 1: analysis of the matrices underlying the development of the tests, to characterize the tests regarding their structure, skills/objectives under evaluation, types of questions used, among other aspects. Stage 2: design, development, and application of an online survey addressed to students about the experience of taking the online test with the TM tool (Global e-folio and Exams) to analyse their degree of satisfaction with this experience. In this sense, online interviews were conducted previously with students from different areas who had gone through the experience under analysis. The final survey presented 36 items, divided into 6 sections (see table), and was sent to the 1373 students involved in the pilot.

Sections of the survey	Type and number of items
1. Participant Characterisation	5 questions (1 short answer and 4 multiple-choice)
2. Technical preparation for the tests	4 items (Likert Scale)
3. Conditions of the test	12 items (Likert Scale)
4. Suitability of the test for the MT tool	6 items (Likert Scale)
5. Overall satisfaction	6 items (Likert Scale)
6. Positive/Negative Aspects and Suggestions	3 open-response items

The items in sections 2, 3, 4, and 5, adopted a Likert scale with 5 levels of response (1 Strongly Disagree and 5 Strongly Agree). 3rd stage: inferential statistical treatment of the data (collected via a survey), as well as qualitative analysis of the open questions. 4th and final stage: Interviews were conducted with the teachers involved, after the entire evaluation process was completed, to assess their satisfaction with the different objectives of the project concerning the process experienced and the results obtained.

Sample

The sample was comprised of 379 students, 31.7% (n=120) male, 67.8% (n=257) female and 0.5% (n=2) other gender. The mean age was 40.73 years (SD=8.52) and ranged from 21 to 64 years. The difference between males (M=41.03, SD=8.57) and females (M=40.69, SD=8.47) in age was not statistically significant [$t(373)=0.358$, $p=.720$]. Almost half of the sample considers themselves to have high (47.8%) or very high (17.2%) digital skills. Regarding teachers, all involved were interviewed (7).

Main results

Regarding the development of skills to design and deliver the online tests, there was a positive evaluation given by the teachers who felt they had developed, during the training offered, the necessary skills to use the MT tool. Most students were quite satisfied with the conditions and

procedures adopted. This feeling was also expressed in the open answers to the questionnaire, where the positive aspects mentioned outweighed the negative aspects. The conditions to take their MT was also evaluated very positively by most respondents, highlighting, as most evident aspects, the shorter amount of time spent, its control, as well as security, related to the fact that the answers are automatically recorded. The open answers, collected at the end of the survey, corroborated the results of the answers obtained in the closed questions. It should also be noted that students from the Statistics for Social Sciences CU had the most positive evaluation of the pre-conditions to take the tests, compared to the students from the other CU, probably because they are the most experienced students in this type of test as the teacher used it throughout the semester.

Concerning the difficulties felt while taking the test, only the reference to navigating with restrictions and the settings used to time each answer per question was mentioned. These results were corroborated in the open-ended questions and were listed as negative aspects, occasionally associated with other aspects, such as not seeing the full text in the questions requiring open answers and fear/lack of confidence of having technical problems. Regarding the satisfaction with the characteristics of the tests, most students considered adequate the use of the TM tool in tests for objective questions and for open questions, although, in the latter case, the level of agreement was lower.

Considering the students' overall satisfaction with the process, it was found that the experience was overall positive for most students. A significant majority would like to use this tool in all the CUs. Teachers considered the experience of using the MT very positive, even though they emphasised that it required more work whilst transposing the existing version of the test to the TM tool. They also emphasised the greater ease and speed in the correction and feedback process, especially when it comes to answers to objective questions. They also highlighted the good receptivity of their students and considered themselves overall quite satisfied with the experience. The analysis of the collected data and its triangulation allowed us to conclude that the delivery of final exams and global e-folios using the MT tool was evaluated as very positive by both students and teachers, and both groups were in favour of continuing and expanding this pilot experience.

Project evaluation

A group of researchers from the Laboratory of Distance Education and ELearning was commissioned to evaluate this pilot project, having developed a mixed methodology (qualitative and quantitative instruments). The results allow us to conclude that the overwhelming majority of the students involved in the pilot project considered the "Moodle Test" tool adequate and reliable. Its use was approved by both the students and the participating teachers, suggesting that the use of this tool may constitute a good practice when the objective is to conduct online assessment tests.

References

Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed-method approaches. London: Sage Publications Ltd.

Pereira, A.; Quintas-Mendes, A.; Morgado, L.; Amante, L.; Bidarra, J. (2007). Modelo Pedagógico Virtual da Universidade Aberta – Para uma Universidade do Futuro (pp.111) Universidade Aberta: Lisboa. 111 pp. ISBN 978-972-674 http://twixar.me/t6Q1

Data-driven learning to improve writing skills in foreign languages

Elena Martín-Monje, M. Dolores Castrillo
Universidad Nacional de Educación a Distancia (UNED) | Spain

This Good Practice deals with foreign languages, language learning, written skills, data-driven learning and personalised feedback.

Introduction

An interdisciplinary team of linguists, psychologists, educators and computer engineers who belong to GLOBE Innovation Group (Innovative Didactic Group for Languages in Open and Blended Environments) has explored the applicability of Data-driven Language Learning (DDL) in the context of formal and non-formal education in a two-year teaching innovation project. The G-Rubric tool, an automatic evaluator of discursive texts already used in previous projects -though only in Spanish- and recognised with several awards and distinctions (Jorge-Botana, 2015), has been used to provide immediate and personalised feedback to undergraduate students in their written production practices in English in the subject "English for Professional Purposes".

To this end, a specific corpus in English already was created in the first phase of the project and has been used, as well as the other updates for the G-Rubric tool to provide immediate and personalised feedback to undergraduate students in their written production practices in English. The tool has also been piloted through a mentoring programme by Master's students in the subject "Open Language Learning", who have had real practice with Open Educational Resources that improve writing skills (in this case G-Rubric). On the other hand, a new edition of the MOOC "How to Succeed in the English B1 Level Exam", previously created by the members of this GID for the CUID (Centro Universitario de Idiomas a Distancia), has been held, with the G-Rubric tool already integrated so that students can also reinforce and improve this written competence in the context of non-formal education, and enabling the opportunity to prepare for the free English B1 level test at the CUID and obtain external and official certification of their level in English.

Good practices

The aims of the project were as follows:

1. To explore the possibilities of Data-Driven Learning in the improvement of written English language proficiency in undergraduate and Master's students, incorporating the latest research in this field.

2. To offer more effective feedback on the lexis used in written production in English, using the G-Rubric tool in the context of English as a foreign language.

3. To initiate a mentoring programme for the improvement of written competence in English: Master students (from the subject "Open Language Learning" in the Master ICT in Language Teaching and Processing) will act as mentors for 1st year undergraduate students (from the subject "English for Professional Purposes" in the Bachelor's Degree in Tourism).

4. To show the students of the ICT Master's Degree in Language Teaching and Treatment a practical and real example of open language learning, closely related to the subject they are studying, "Open Language Learning".

5. To promote the accreditation of the foreign language level of UNED students through the preparation and completion of the CUID free language test, updating the free MOOC course "How to succeed in the English B1 Level Exam", already available on the UNED Abierta platform with tasks designed with G-Rubric, encouraging them to participate to enrich their learning experience and that it is not limited to that of the degree they are studying, but that they can obtain external and official certification of their level of English language at the university's Language Institute.

The main results obtained are the following:

1. The students of "English for Professional Purposes" have had the help of a tool that has assisted them in practising and improving their WRITTEN COMPOSITION before the final delivery (G-Rubric);

2. A positive assessment is appreciated by the students in relation to the usefulness of G-Rubric to provide personalised feedback in English for Specific Purposes.

3. Students have also positively valued the mentoring of Master's students to undergraduate students;

4. Master's students have had real practice with open technologies for language learning; and

5. External accreditation of English as a foreign language has been promoted through a MOOC.

Conclusion

The most notable contribution of this work is the attempt to bring teaching innovation to different areas of the university community, building bridges between formal and non-formal education, between undergraduate and postgraduate studies, between teachers and students. Thus, in the teaching innovation project "Data-Driven Learning (DDL) for the improvement of written competence in English" the following contributions have been made: 1) the possibilities of Data-Driven Learning (DDL) in the improvement of written competence in undergraduate and master's degree students have been explored, incorporating the latest research developments in this field; 2) the G-Rubric tool (developed by UNED lecturers and already successfully used in other disciplines) has been adapted to offer personalised feedback on written production in English in the subject "English for professional purposes" in the 1st year of the Bachelor's Degree in Tourism and in the MOOC "How to succeed in the English B1 level exam"; 3) a mentoring programme of Master's students with undergraduate students has been initiated; 4) students of the Master's subject "Open Language Learning" have been involved in a real example of open language learning and 5)

accreditation of foreign language level has been promoted through the university's Institute of Languages, with ad hoc contents of the MOOC "How to succeed in the English B1 level exam".

References

Boulton, A. (2017). Data-Driven Learning and Language Pedagogy. In Language, Education and Technology: Encyclopedia of Language and Education. https://doi.org/10.1007/978-3-319-02237-6

Chen, M. & Flowerdew, H. A critical review of research and practice in data-driven learning (DDL) in the academic writing classroom. International Journal of Corpus Linguistics, 23(3), 335-369.

Jorge-Botana, G., Luzón, J. M., Gómez-Veiga, I., & Martín-Cordero, J. I. (2015). Automated LSA assessment of summaries in distance education. Journal of Educational Computing Research, 52(3), 341-364.

Santamaría Lancho, M., Hernández, M., Sánchez-Elvira Paniagua, Á., Luzón Encabo, J. M., & Jorge-Botana, G. (2018). Using Semantic Technologies for Formative Assessment and Scoring in Large Courses and MOOCs. Journal of Interactive Media in Education, 2018(1).

Pros and cons of online learning and assessment methods in higher education L.

Pessi Lyyra & Tomi Waselius

University of Jyväskylä | Finland

We review the main learning and assessment methods in higher education in a Finnish Open University: online exams, written assignments, visual presentation and peer assessment. Shortcomings and benefits are described for each assessment methods related to academic integrity (student authentication, plagiarism), student support as well as course material and academic skills learning. We conclude that online assessment methods require appropriate student support and technological flexibility. Of these, student support and protection of academic integrity in particular pose the greatest limitations for these methods. However, the benefits overcome the shortcomings in such a degree that these methods will most probably remain in use especially in institutes offering distance learning in higher education.

Introduction

Institutes offering online distance learning in higher education, such as open universities, have long tackled issues and challenges related to online distance learning and assessment, presently relevant for most education during the COVID-19 lockdown era. These issues and challenges include those of academic integrity – for example student authentication and plagiarism detection – assessment, and designing appropriate student supporting distance learning environments.

In this paper, we introduce a few most common online distance learning and assessment practices adopted in basic and bachelor studies in psychology at Open University of the University of Jyväskylä (henceforth, 'OUJYU'), Finland. We have selected these methods to familiarize students with a variety of learning and assessment methods: diverse online exams, written assignments, as well as visual presentations including peer review. These also correspond to the wide range of work life skills required in the lifelong learning in contemporary academic and other areas of work life, as outlined by the European education policy (EU, 2019). We briefly review these methods and enumerate in our view the main pros and cons related to each. Moreover, we propose some good practices developed to meet the related online distance learning challenges. Blended or hybrid models involving both online and traditional face-to-face learning and assessment have not been used, but we will consider the applicability of the methods for hybrid education and assessment as well.

Main methods in online distance assessment

Online exams

Probably the most used distance learning assessment method may be the online exam, and at OUJYU it has replaced traditional and electronic exams requiring physical presence from the part of

the students. Online exams can take various forms, employing open questions assessed by educators to diverse computerized short questions. Basically, students are required to participate in the exam during a given time frame, and submit or type their answers online. Despite obvious advantages for student protection during the COVID-19 situation, threats to academic integrity are diverse due to lack of proper proctoring. The most acute challenges are student authentication, and plagiarism. Exam design becomes of paramount importance. For example, it is preferrable to use open book exams with open questions to promote reflection and applied discussion of the material rather than reproducing it. Computerized questions should be systematically varied to prevent dissemination of the questions among students. This assessment method works relatively well for many, but not so for the more exact sciences.

Another form of online exam is the online oral exam. It is readily compatible with online and hybrid learning environments, and largely resolves the student identification issue. The obvious downside is the limited time and technological resources from the part of both students and educators required for this assessment mode. Each session needs to be arranged separately. Requiring face-to-face online connection is, however, prohibited by the national legislation in Finland, which limits using this as an all students encompassing practice. Moreover, individual, or situational, differences related extraversion of students may confound academic skill assessment (Thomas et al., 1993).

Written assignments

The main alternative for exams has been some form of written assignment. Students are instructed to produce and submit essays, study diaries and the like in a more flexible time frame than with exams, for example during a few months. Based on student feedback at OUJYU, compared to exams, this method not only promotes a more holistic, critical and applied type of learning, but also students' academic writing skills. Students also feel less performance related anxiety and pressure than with exams, as they can more efficiently manage their schedules, and control their writing process.

Requiring advanced academic writing skills, this learning method requires a lot of student support. At the least, the task should be thoroughly instructed in terms of both format and content. For assessment, spelling out the criteria as comprehensively as possible has become particularly essential. Students find written assignments typically laborious but highly instructive. Due to the typical length of the essays, their assessment can be highly tedious and time consuming compared to exams, especially with formative feedback. The main drawbacks of this learning and assessment method are ethical: students are easily persuaded to use other students' works, or as a worst case, revert to plagiarism or inappropriately using other people's work (Rowe, 2004). Therefore, student authentication and plagiarism detection are necessary especially with this method.

Online presentation and peer assessment

As contemporary academic dissemination of ideas largely exploits visual presentation technologies, and modern learning environments provide tools for presentation and peer assessment, we have made use of this as a form of learning and assessment in higher education. Students submit presentations with pre-recorded slides and narration, and assess each other's works in an online workshop environment in this learning method. Many learning environments incorporate tools for this. In addition to self-assessment skills, students require assessment skills of their peers' work, and gain experience in the use of presentation methods and tools. The assessment needs be structured, students instructed well to give positive and constructed feedback. Student presentations also

contribute to learning and processing of central course topics. According to feedback, students find this refreshing and effective as a learning method, upholding communality, and a more social type of learning. This method improves students' work life skills more efficiently than other learning and assessment methods. Peer assessment can also be exploited as part of final assessment. As with oral exams, video presentations do not suffer from student authentication issues. However, plagiarism identification does not apply optimally for video presentations. Student support and instructions are even more important than with written assignments, although at best this may contribute to the feeling of communality and contacts between students, much appreciated by students during lockdown.

Conclusions

The reviewed online distance learning and assessment practices have brought about a novel, flexible and technological perspective on assessment. Online exams and written assignments call for more support and supervision from the part of the educators, and insufficient student support with these methods may be a risk factor for cessation of studies in online higher education (Maunula, Maunumäki, & Anttonen, 2021). Comprehensive instructions and spelling out assessment criteria have gained a new practical meaning. Although majority of the students are able to work independently, some enjoy support from teachers and other students in forums and online meetings. Formative evaluation and feedback before final examination works not only as support but also as a way of reducing the motivation for cheating. Learning environments and various meeting applications allow group study and peer support. They also help educators arrange a social and communal aspect to learning.

It is more than probable that many of these practices will remain in use after the COVID-19 era also at our institute. However, there are still a few student support and ethical challenges to meet. For online exams and written assignments, we have used a plagiarism detection (Turnitin) but practically no other student authentication at OUJYU. The extent of other forms of cheating is largely unknown but undoubtedly present, and difficult to counteract because of limitations imposed by local legislation. Nevertheless, our university participated in the Horizon 2020 project TeSLA, (Trust-Based E-Assessment System for Learning) as a pilot institute (Ladonlahti, Laamanen, & Uotinen, 2020). The system is developed and found to successfully address many academic integrity issues, particularly student authentication (Mellar et al., 2018). Incorporating TeSLA in the distance learning environments is set to be launched during the year 2022 at our institute. Another presently not identifiable form of cheating is the unwanted use of online material by students using translation software (e.g., Winch, 2018). This form of cheating is typically used in language studies, but it is equally applicable in studies in other languages than English, in which most of the applicable source material is available. Developing for example trust based (Baneres et al., 2016) or machine learning measures (Chitra & Rajkumar, 2016) to detect this type plagiarism will also be a major challenge for higher education institutes in non-English speaking countries.

References

Baneres, D., Rodríguez, M. E., Guerrero, A.-E., & Baró, X. (2016), Towards an adaptive e-assessment system based on trustworthiness. In S. Caballé & R. Clarisó (Eds.), Formative assessment, learning data analytics and gamification. Vol 2 (pp. 25-47). Academic press. DOI: 10.1016/b978-0-12-803637-2.00002-6

Chitra, A. and Rajkumar, Anupriya. "Plagiarism Detection Using Machine Learning-Based Paraphrase Recognizer" Journal of Intelligent Systems, vol. 25, no. 3, 2016, pp. 351-359. DOI: 10.1515/jisys-2014-0146

EU. Key competences for lifelong learning. Luxembourg: Publications Office of the European Union (2019). https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en

Graf, S. T., Rasmussen, F., & Ruge, D. (2021). Online oral examinations during Covid-19: A survey study at University College level. Tidsskriftet Læring Og Medier (LOM), 14(24). DOI: 10.7146/lom.v14i24.125805

Ladonlahti, T., Laamanen, M., & Uotinen, S. (2020). Ensuring Diverse User Experiences and Accessibility While Developing the TeSLA e-Assessment System. In D. Baneres, M. Rodríguez, & A. Guerrero-Roldán (Eds.), Engineering Data-Driven Adaptive Trust-based e-Assessment Systems. Lecture Notes on Data Engineering and Communications Technologies, vol 34. Springer. DOI: 10.1007/978-3-030-29326-0_10

Maunula, M., Maunumäki, M., & Anttonen, S. (2021). Zero-Achievers' Non-Progressing Studies in Finnish Open University: Three Preventive Factors. Journal of Education, Society and Behavioural Science, 34(11), 110-120. DOI: 10.9734/jesbs/2021/v34i1130371

Mellar, H., Peytcheva-Forsyth, R., Kocdar, S., Karadenic, A., & Blagovesna, Y. (2018). Addressing cheating in e-assessment using student authentication and authorship checking systems: teachers' perspectives. International Journal for Educational Integrity, 14, 2. DOI: 10.1007/s40979-018-0025-x

Rowe, N. C. (2004). Cheating in online student assessment: Beyond plagiarism. Online Journal of Distance Learning Administration, 7 (2). 1-10.

Thomas, C. S., Mellsop, G., Callender, K., Crawshaw, J., Ellis, P. M., Hall, A., MacDonald, J., Silverskiold, P., & Romans-Clarkson, S. (1993). The oral examination: a study of academic and non-academic factors. Medical Education, 27, 433-439. DOI: 10.1111/j.1365-2923.1993.tb00297.x

Winch, Junko (2018). Google Translate and plagiarism in university language formative assessment work. Google Translate & Modern Languages Education, 29, University of Nottingham. URI: http://sro.sussex.ac.uk/id/eprint/76839

Using MS TEAMS for online peer assessment: an innovative educational proposal

Paz Díez-Arcón, Elena Martín-Monje, M. Dolores Castrillo
Universidad Nacional de Educación a Distancia (UNED) | Spain

This Good practice deals with teaching foreign language, online peer assessment, MS TEAMS and collaborative learning.

Introduction

In the academic year 2021/2022 the optional subject "Teaching English as a Foreign Language" has been launched in the Degree in English Studies at Universidad Nacional de Educación a Distancia (UNED) with 584 students enrolled in it. This subject is designed to meet the learning needs of future professionals in the teaching of English as a foreign language, providing an overview of the main methodological principles for English Language Teaching and their practical application.

In this way, the contents of the subject "Teaching English as a Foreign Language" are considered in an integrated manner, focusing not so much on the acquisition of purely conceptual knowledge, but rather on training the student to carry out concrete tasks through the design of activities and lesson plans for teaching English. The evaluation of the course performance is measured considering 1) an individual final exam and 2) the collaborative design of a task plan. Optionally, students can obtain an extra 5% added to their final grade by completing a voluntary task, which consists in creating and sharing a video presentation of their practical work and assessing the presentations made by other work groups. The innovative educational proposal presented in this paper focuses on this voluntary task.

Methodology

The teaching team (TT) arranged to create an educational group on Microsoft TEAMS called "Collaborative Space EILE" (Spanish acronym for "Enseñanza del Inglés como Lengua Extranjera") and to make use of Microsoft Stream. Access to both Microsoft Office applications is provided to students by the university through the institutional email accounts.

Participating students have to prepare a video presentation of their work and store it in the collaborative group. The storage implies that the presentations will be open access for all students participating in the optional task. The teaching team is responsible for embedding a form in each of the presentations uploaded to "Stream", so that each presentation can be assessed. Students are guided by a rubric stored in the collaborative group which provides them with the assessment criteria, namely: structure, content, presentation, group work, verbal, and non-verbal communication, as well as the grading scale.

Students will have to access each of the presentations using the shared space in Microsoft Stream. They will have to evaluate, according to the established guidelines, the work of their classmates.

Additionally, the teaching team will include a link to the results obtained in each of the presentations. It will be published in the comments section of each video. In this way, the members of the collaborative space will have open access to the resources produced by their peers, as well as to the results of their own and others' evaluations. At the moment of submitting this paper, this innovative proposal is still ongoing, since it is being carried out in the autumn term.

Good practices

The aims of the innovation are:

- To engage students in online dynamics in line with the distinctive methodology of UNED (distance learning).

- To expand the use of digital tools provided by the university to foster collaborative work.

- To design assessment tasks that allow to develop future foreign language teaching professionals' communicative skills in English language and to promote collaboration.

- To promote online peer assessment to:

  1. Encourage students to critically reflect and be more responsible for their own learning progress and performance

  2. Foster negotiation with other to come to a consensus, as assessments must be agreed among the members of each work team

  3. Produce peer feedback to confirm existing information, add new information, identify errors, correct errors, and improve conditional application of information

  4. Develop students' provision and reception of constructive feedback and criticism

  5. Arrange for students to consider and specify the level, value, or quality of a product or performance of other equal-status learners

  6. Help students to identify strengths and weaknesses, target areas for remedial action and develop metacognitive, judgmental, and professional skills

Conclusion

The creation and promotion of the collaborative group in Teams has led to a growing interest in the opportunities the platform provides for collaborative work among the students of the subject. The TT has provided precise instructions for the optional task, accompanied by a dedicated webinar and is providing constant monitoring through the UNED online campus forums and email. There are currently a total of 120 students, or in other words, over 20% of those enrolled in the subject, who have requested to join the collaborative group. It is to be expected that the members participating of the group class in Microsoft Teams are interested in carrying out the optional task.

The proposal presented is part of the first phase of an ongoing research. At an upcoming stage the effects of the innovation will be measured. First, a comparison of average grades among students who have participated and those who have not will be carried out. In this way, it will be possible to check whether the measures proposed, such as group work or peer assessment, have a tangible

impact on the score achieved in the practical task. On the other hand, the possible existence of a correlation between the implementation of the innovation and the overall academic results will be calculated. Finally, the "Course Experience Questionnaire" (Wilson et al. 1997) in its validated version adapted for Spanish speakers in the university context (Ugalde et al. 2012) will be applied to all students. In this way it will be possible to determine whether there are significant differences between students who have made use of the innovation and those who have not in the set of dimensions the questionnaire explores. In accordance with the objectives of the educational innovation, it is to be expected that there will be relevant results in the dimension that measure the experience in relation to teaching and, especially, in those that deal with aspects of assessment and e-learning.

References

Buchal, R., & Songsore, E. (2019). Using Microsoft Teams to support collaborative knowledge building in the context of sustainability assessment. *Proceedings of the Canadian Engineering Education Association (CEEA)*.

Guzmán, N. L. (2021). Microsoft Teams como LMS en la educación superior virtual. *Revista Compás Empresarial*, *11*(32), 58-75.

Hewson, E., & Chung, G. W. (2021). Beyond the VLE: transforming online discussion and collaboration through Microsoft Teams. *Hosted by UNED, Madrid (Spain)*, 36.

Topping, K. J. (2009). Peer assessment. *Theory into practice*, *48*(1), 20-27.

Sarauz, M., Shuguli, J., Vaca, D., & Villafuerte, R. (2020). Evaluación de satisfacción a los estudiantes sobre el uso del software Microsoft Teams. *Minerva*, *1*(2), 13-18.

Ugalde, C. G., Montenegro, H., & Villafaña, L. L. (2012). Análisis de confiabilidad y de validez del instrumento Course Experience Questionnaire (CEQ). *Educación y educadores*, *15*(1), 8.

Wilson, K. L., Lizzio, A., & Ramsden, P. (1997). The development, validation and application of the Course Experience Questionnaire. *Studies in higher education*, *22*(1), 33-53.

Open book assessment

Lucie Rohlíková

University of West Bohemia | Czech Republic

This case study describes the best practices example which was used as an assessment method in the framework of pre-service teacher training at the Faculty of Education of the University of West Bohemia in Pilsen, Czech Republic. The change of the method of assessment was necessary during the university closure due to COVID-19 pandemic in 2020 and 2021. The case study describes the process, and reflects on critical success factors.

The evaluation was carried out using Google applications; specifically using Google Meet and Google Doc.

Introduction

During the COVID-19 pandemic, and during the closure of universities, we looked for suitable methods of distance assessment in all subjects implemented in the training of future teachers. Most subjects are practically oriented, and assume that there will be a reflection on specific didactic situations. The pandemic caused many problems in the training of future teachers, especially in their pedagogical practice, which is implemented directly in schools, but changes in the implementation of teaching and in the method of evaluation had to occur in virtually all subjects.

Action taken

In the "Technology enhanced learning" course, realized at the Faculty of Education of the University of West Bohemia in Pilsen, the final exam was realized before 2020, so that the student worked independently for 90 minutes on the preparation of the methodological sheet. In the methodological sheet, they worked on the basis of the assignment of the practical topic, the target group, and the designated technical equipment, in order to describe the activity using technologies for implementation in primary schools. After the presentation and defence of the chosen activity within the colloquium of students and two teachers who participate in the teaching of the subject, a theoretically focused oral exam followed.

At the time of the pandemic, we decided to conduct the entire test in a remote manner, using Google Meet video conferencing, and work with a template of method sheets placed in the shared space of the university's Google disk.

The testing process: The students were informed that the exam would be conducted in the form of an open book, so that throughout the exam, they could have their notes, portfolio, books, and other resources, as well as access to the Internet. At the beginning of the exam, the teacher gave everyone a common topic, and the specific technical equipment that could be taken into account when planning activities for primary school students.

The teacher made available to individual students a template of the methodological sheet, provided with their name, and on which they had to supplement this information in a shared environment:

- Subject/theme
- Thematic unit
- Motivational framework of the activity
- Number of pupils
- Aids
- Downloading the application
- Brief description of the activity
- Suitable place
- Developed key
- Competence
- Objectives of the activity
- Cognitive goals
- SAMR level
- Assignments for students
- Timing
- Evaluation
- Links (interdisciplinary relationships)
- Author of the topic
- Application previews

Good practices

Over the course of 90 minutes, the teachers were able to follow the students' work on the method sheet in Google Drive. Students were told that they could turn off their Google Meet video camera if they wanted to, and that they could work quietly, without constant supervision. At the same time, they were asked to keep Google Meet and sound turned on for any teacher questions. In the event that the teacher experienced any major problems during the online work, and they needed to direct the student in a slightly different direction, or they needed to adjust the framework of the activity so that the student did not unnecessarily elaborate an inappropriate activity, they could contact the students either via audio commentary within Google Meet, or via comments directly entered into the methodological sheet.

At the end of the 90 minutes, the individual student presented their work in such a way that they were present for the other students' exams. The discussion on the individual prepared activities therefore had not only an evaluative character, but also an added value, from a didactic point of view. During the discussion, we worked not only with the evaluation of the activity by the teacher, but also with the students' self-evaluations and mutual evaluations of the students. We carried out a mutual evaluation of the student in such a way that the individual student present provided brief feedback on the proposed activity to the student immediately after his/her presentation in the chat.

The theoretical examination, which follows the first, practical part, took place individually - in the form of an interview with the student about three topics, which the student drew from the pre-given topics.

Students' view

The students greatly appreciated that, due to the possibility of looking into the literature and working with resources, the exam could be closer to the reality of preparing a teacher for teaching, especially when they also have all of the resources at hand when planning the activity.

They also appreciated that they didn't have to have the camera on all the time, which gave them some privacy and also reduced the amount of stress.

The teachers' partnership approach and conducting the exam as partner discussions were also important for a pleasant working and team atmosphere during the exam. The exam therefore acquired a strong didactic character, and thanks to this, it was more than just a control of learning outcomes, which is also another important element of teaching the subject.

Agile, collaborative academic decision-making at scale and speed

Klaus-Dieter Rossade

The Open University | United Kingdom

This best practice case study addresses the need to implement changes when time is short and doing nothing is not an option – for example during a pandemic. It describes the work of a university-wide Academic Implementation Group that was stood up at the Open University UK from March 2020 to March 2021. This group enabled principled and effective decision making. The case study describes the process, reflects on critical success factors and some of the impact at the time and beyond the life of the group.

Introduction

The disruption from the COVID-19 pandemic required HEIs around the world to adapt and change at great speed. When the first national lockdown in England was announced on 23 March 2020, over 130,000 students at The Open University, UK, were about to complete their modules and, for over 10,000 of them, their degrees. Supporting students to pass the final assessment of their modules became a non-negotiable priority. The wellbeing of students and OU staff was at stake.

Action taken

The university stood up an Emergency Management Team, with subgroups such as the Academic Implications Group (AIG). This group is at the core of this case study. AIG was tasked to ensure that informed decisions are made and then implemented effectively across the university. This included temporary changes to academic policy and the operational delivery of assessment, tuition and student support.

Chaired by the Deputy Vice-Chancellor, AIG included representatives from academic and professional services units, along with senior executive members of the OU Students Association and Associate Lecturer community. Each member was invited to represent their stakeholder group(s) and facilitate two-way communication channels to these groups. This helped to push temporary policies into faculties and professional service units, and to get feedback from staff and students experiences of these temporary measures.

All members contributed towards a common university goal: to support student success and maintain the academic integrity and quality standards as required by national regulators and quality assurance bodies in the four nations of the United Kingdom. Twelve months after the first meeting, AIG was discontinued, and decision making moved back into pre-pandemic existing groups and processes.

Mode of operation: Initially, the group met weekly initially to work through the implications of decisions such as moving exams online, cancelling final assessments where possible, relax rules about submission extensions, discretionary postponement of final assessed tasks, consideration of

special circumstances, as well as standardisation of marks and module results awarding processes. After about seven months, the group met every other week: by then key decisions had been taken and the group was now considering emerging issues from the ongoing pandemic and the national response to this.

To illustrate the complexity of AIG decision making: When face2face exams were moved online in March/April, the group decided not to change the exam questions so not to introduce errors from hastily amended exam papers. Moving closed book exam papers online required greater standardisation of results and several approaches were considered. Students needed help to understand the complex ways of determining module results. Resit examinations in September were subsequently adapted to the new delivery mode. All of this needed to be communicated at the right time, at the right level of detail, and adapted to the assessment context of each module.

Good practices

Reflecting on the work of this group over 12 months and discussing it with colleagues, the following points stand out:

1.   Common purpose: The pandemic provided a strong identification with the core purpose of the group: maximise student success during Covid19 while staying true to academic integrity and standards. It united colleagues in a way that is perhaps not always present in existing governance and management meetings.

2.   Urgency: Doing nothing was not an option during the pandemic year. Whatever the differences in perspectives and opinions between staff and students, the group needed to come up with decisions and actions quickly. It also meant colleagues were working over and above their normal workload. Such workloads are not sustainable in the medium term, but there was also a sense of achievement when students got their results and knew they could continue with their studies, change their careers, or start employment without delay. For key workers in the National Health Service, we ratified results to students outside normal schedules so students could commence new jobs that relied on the early award of the OU qualification. The work of the group thus contributed directly to the national effort to address the pandemic by increasing resourcing in Health professions.

3.   Listening and being heard: Listening to the voices in the (MS Teams) room was the predominant mode of working. As decisions had to be made, not everybody's view could be accommodated, but the chair ensured that all members were heard, and their views considered even if decisions went a different way. The right balance between consulting and making decisions can be delicate and sometimes lead to too much discussion with no action or the opposite. In the AIG, one might argue, the balance was about right. The style of chairing and the recording of dissenting voices could be seen as essential for this outcome.

4.   Student partnership: Student involvement was crucial as their representatives helped get the message right and bring back feedback from students as the pandemic progressed. Students were invited from the start, not as an afterthought, and the president of the OU Student Association confirmed that this appears to have now become more common in the university's governance and management practice.

5.   Professionalising communication: Having a dedicated team of communication experts helped turning good decisions into good news releases to staff and students. Early on in the process, we did not get this right all the time and this caused confusion, but over time, messaging improved and delivered the desired results. There is now greater awareness about the role of communication on other projects and change programmes. Good work can come undone if communication has not been considered appropriately.

6.   Cross-university membership: The group effectively brought academic governance and university management at one table with the right people present to balance staff and student management with academic quality assurance and standards. These functions are traditionally more separated at the Open University. A new Academic Policy Management Group may take over some of the functions of the AIG and thereby link management and academic governance going forward, ready for future emergencies.

In the panel discussion following her opening keynote at I-HE 2021 conference, reflecting on the question by the chair about what had stood out for panel members during the pandemic, the Open University UK Deputy Vice Chancellor Josie Fraser recalled the collaborative and effective work of the Academic Implications Group that had contributed in great measure to student success during the 2020 pandemic year.

Cancelling final assessed tasks

Early on in the work of the group the decision was taken to cancel all final assessed tasks (exams or end of course assignments) where we had sufficient data from students' continuous assessment. It was a bold decision, taken with good intentions and in line with suggestions from regulating and quality standards bodies.

Many students expressed their gratitude, though some had banked on demonstrating their learning in their final assessed task. It also created much additional work for staff to get all academic members on board, explain the processes to students, review and adapt existing module result awarding processes and more.

This is one of many decisions taken in the early months of the pandemic. There was often no right or wrong and not everybody's needs could be accommodated. However, once the group had made the decision, it stood and took its course. In most cases, the outcomes reflected the quality of the decisions.

References

Two academic papers are in progress which will explore in greater detail the unique way of working in this group, the strong partnership with students and the impact beyond the twelve months of operation of the group. The authorship of these papers reflects the cross-stakeholder nature of AIG, bringing together academic staff, professional services staff and student representatives as joint authors.

Avoiding e-proctoring, ensuring trust: UNED's AvEx

José L. Aznarte, Ángeles Sánchez-Elvira, Miguel Santamaría, Llanos Tobarra Abad, Jesús González Boticario

Universidad Nacional de Educación a Distancia (UNED) | Spain

From the first weeks of the pandemic, it was clear that the usual face to face exams were not an option for the June 2020 call. Thus, the rectorate had to decide whether to postpone them or to implement a remote examination system. Since face-to-face exams represent an important stake for the quality of UNED's teaching and learning processes, this decision was crucial and had to be taken with urgency.

Introduction

From the first weeks of the pandemic, it was clear that the usual face to face exams were not an option for the June 2020 call. Thus, the rectorate had to decide whether to postpone them or to implement a remote examination system. Since face-to-face exams represent an important stake for the quality of UNED's teaching and learning processes, this decision was crucial and had to be taken with urgency. After exploring the available market solutions, the rectorate decided to implement its own software to allow for remote exam sitting. This software is called Aula Virtual de Exámenes – AvEx ("virtual examination hall"). While trying to replicate the usual conditions of face-to-face exams, fraud prevention was an essential requisite, and legal certainty was also to be guaranteed. Facial recognition-based solutions were discarded in favour of a multilevel approach which succeeded in enforcing the University's strict rules for examination.

Facial recognition and its problems

In recent years, FRT applied to surveillance is expanding. However, despite the promises of sellers of these AI-based technologies, there is mounting evidence that these technologies can cause serious harm and that there are technical, legal, and ethical difficulties associated with them.

UNED, as a pioneer institution in distance learning, which recently welcomed its community participation to develop an ethical framework for the use of massive data-based technologies (UNED, 2019), pondered a key question regarding remote examination: can we delegate the responsibility to guaranteeing cleanness in online exams to technology only? In order to find an answer, a series of potentially problematic issues was identified (for a detailed account of these issues, see Aznarte et al. 2021):

a/ There is no clear legal framework for invasive surveillance technologies.

b/ The use of FRT might imply a violation of the legal principles of necessity and proportionality.

c/ FRT can violate privacy rights.

d/ FRT are naturally imprecise, and its software is fallible (Simonite, 2019).

e/ FRT can produce automatization bias (Lyell, 2016).

f/ FRT can produce discriminations and violations of the equality principle.

g/ FRT can generate discriminations based on different functional abilities.

Last, but not least, it is a known fact that FRT, in spite of their promises, are unable to guarantee authorship or to avoid the use of non-permitted materials in online tests. As hackers have taught us, it is almost impossible to conceive a system which is 100% secure. There is no way to avoid someone having two keyboards and screens connected to the same computer, for example, or accessing the exams from a virtual operating system. These are only two of many possible creative examples.

AvEx security measures
Given the above, UNED decided to implement AvEx, a system without FRT, relying on a set of incomplete measures that, together, guarantee the fairness of the examination process. This software allows for synchronous and simultaneous examination of thousands of students and tries to replicate the conditions of face-to-face tests without TRF. AvEx security measures can be divided into three different categories as follows.

Security elements related to test design
In remote examination, one of the fundamental factors to reduce fraud is to be found in the very design of the exam. This must be balanced with the fact that fraud minimization is not the only objective: any change to the tests should not imply an increase in their difficulty. Some of these measures are:

Wide question banks: combinatorial automatic generation of exams allows for a drastic reduction of the probability of two students having the same exam. In AvEx, these banks can be created by course section, thus allowing for a balanced exam to be offered to every student.

Open book exams: teams were encouraged to allow the use of any material while taking the examination. In any regard, non-memoristic questions are considered to be a better tool for evaluation, and thus it is a good opportunity to shift our evaluation culture.

Time/number of questions ratio: Adjusting the allotted time for the exam, depending on its complexity, implies that less time is available for cheating. Teachers were encouraged to also take into account low-bandwidth situations.

Software related security elements
Since UNED developed its own software, and despite the urgency of the first weeks, was able to introduce several security elements from the very first version of AvEx:

Randomization of questions and answers: since exams are taken synchronously by the students of a single course, randomization impairs knowledge sharing.

Sequential access to questions: difficulting the accumulation of questions/answers and thus the capturing and sharing of them.

Disabilitation of certain software freedoms: impossibility to copy and paste text from the application hinders quick sharing of information.

Verificatio: UNED's own text matching engine, allowing for the automatic comparison of students' answers, both amongst them and with other texts either from the course material or from the internet. Coincidences can thus be highlighted and the course responsible can act upon them.

Random picture taking: during the test, students are required to allow access to their webcam, and photos are taken randomly. These pictures are not automatically analysed, but they are attached to the exam and thus available for the course teams to verify authorship.

Remote assistance (under development): AvEx will allow bidirectional audio-visual communication between a student and a teacher in charge of the process. This communication can be used both for solving procedural questions and for verifying and preventing any unwanted behaviour.

Other security measures

The University put other exceptional measures in place to guarantee the fairness of the process. One example is a sworn declaration of authorship and of no violation of the regulations: Students are informed about the existing sanctioning system while an appeal to their individual responsibility is made. This signed document will be used in eventual legal processes. Another is a delayed interview: Students agree to the possibility that the course responsible fix an appointment with them, as a complement to the exam, in order to confirm the result of the evaluation.

Conclusion

It is important to consider the evaluation system as a whole: it is the decisive conjunction of the different aforementioned elements that helps fraud minimization. This way, we can guarantee rigour and quality of our evaluation, without the need of using overrated and problematic technologies in the process. The results of AvEx after five examination calls from June 2020, with a low number of issues recorded and a generally high student and teacher satisfaction, are encouraging and draw a clear path for the future.

References

Aznarte, J. L., Melendo Pardo, M., & Lacruz López, J. M. (2021). Sobre el uso de tecnologías de reconocimiento facial en la universidad: el caso de la UNED. RIED, 25(1). https://doi.org/10.5944/ried.25.1.31533

Lyell, D. (2016). Automation Can Leave Us Complacent, and That Can Have Dangerous Consequences. https://theconversation.com/automation-can-leave-us-complacent-and-that-can-have-dangerous-consequences-62429

Simonite, T. (2019). The Best Algorithms Still Struggle to Recognize Black Faces. https://www.wired.com/story/best-algorithms-struggle-recognize-black-faces-equally/

UNED. (2019). Marco Ético para el Uso de Tecnologías Basadas en Datos Masivos en la UNED. https://participa.uned.es/

GP13

Improving engagement and student performance through e-continuous assessment

Miguel Santamaría Lancho

Universidad Nacional de Educación a Distancia (UNED) | Spain

The positive effects of online continuous assessment on student involvement (Rengel, 2009; Holmes, 2015), study planning, and academic results are well known.

At the UNED (Spanish National Distance Education University), following academic regulations, teaching teams must include e-continuous assessment activities in the design of their courses. However, these activities are voluntary for students. The weight of continuous assessment in the overall evaluation is low, at around 20% of the final mark.

This is a consequence of an institutional culture of assessment that focuses on assessment as a tool for certifying learning acquisition.

Considering the positive effects of continuous assessment, a change of this institutional culture is being promoted to focus on assessment to promote learning (Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. 2003), increase student involvement and enrich evaluation to facilitate the evaluation of competencies (Dejene, W., & Chen, D., 2019).

This report shows the effects of increasing the weight of continuous assessment in an Economic History course, taught in the first year of the Bachelor's Degree in Economics. E-continuous assessment activities enhanced student engagement, increased final exam attendance, and improved final exam performance.

Introduction

UNED has high drop-out rates among its students, like other distance education universities, especially in the first year. The low final exam attendance rates (50-55%) result from this high drop-out rate. These part-time students find it challenging to plan their studies and compatible with their other obligations and social commitments. The teaching team responsible for the course decided to increase the weight of continuous assessment in the final mark to generate an incentive to increase the number of students who carry out weekly continuous assessment activities. In this way, the teaching team expected to make it easier for them to plan their studies, give them regular feedback on their progress (Isaksson, 2007; Rushton, 2005), make them feel better prepared for the final exam and thus increase the number of students taking the exam.

How increasing the weight of continuous assessment could improve student engagement and performance

To increase the weight of continuous assessment, the teaching team offered students a choice between the existing assessment system and a new one that reinforced the weight of continuous assessment.

Previous continuous assessment system
CONTINUOUS ASSESSMENT ACTIVITIES - 10 Weekly Marked Tests: 1 point - 2 TMA (Tutor Mark Assignment): 2 Points Maximum mark to be added to the final mark: 2 points   FINAL FACE TO FACE EXAM - 20 multiple-choice questions (4 points) - 2 practical exercises similar to the TMAs (6 points)
New reinforced continuous assessment system
CONTINUOUS ASSESSMENT ACTIVITIES - 10 Weekly Marked Tests (*): 1 point   - 2 TMA (Tutor Mark Assignment): 2 Points - 2 self-assessments of the TMA : 2 point Maximum mark to be added to the final mark: 4 points   FINAL (reduced) FACE TO FACE EXAM - 20 multiple-choice questions (4 points) - 1 practical exercises similar to the TMAs (3 points)

Given the voluntary nature of the continuous assessment, students could choose between three options: No continuous assessment, continuous assessment with a weight of 20% or continuous assessment with a reinforced weight (40%).

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Results

Increased student involvement

The increase in the weight of continuous assessment increased the involvement of students, as shown by the rise in the percentage of students who took the graded tests and the TMAs, compared to the previous year.
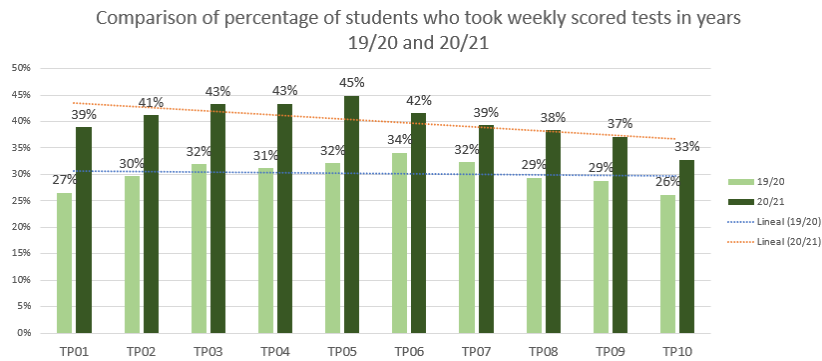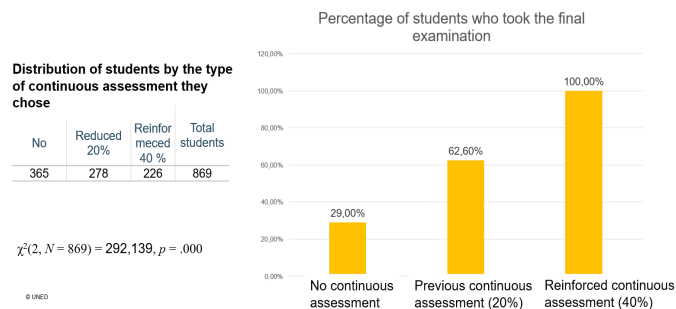

Graph 1. Percentage of students doing weekly scored test
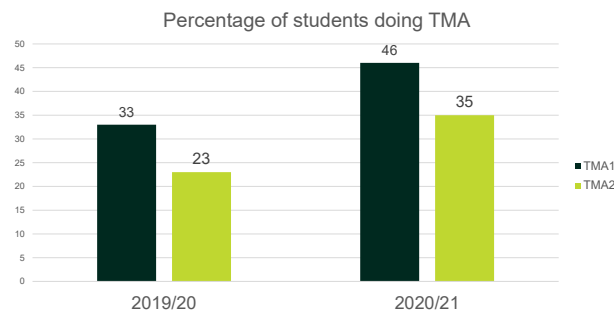
Graph 2. Percentage of students doing TMA

Increase in the final exam attendance rate

Only 29 % of the students did not do continuous assessment; however, all those who chose continuous assessment with more weight in the final exam sat the final exam.

Distribution of students by the type of continuous assessment they chose

No	Reduced 20%	Reinformeced 40 %	Total students
365	278	226	869

$\chi^2(2, N = 869) = 292,139, p = .000$

© UNED

Graph 3. Percentage of students who took the final exam

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Continuous assessment improved performance in the final exam

The students who opted for the reinforced, continuous assessment obtained a better average grade in the final exam, consistent with other research findings (González, M. de la O., Jareño, F., & López, R., 2015).

N= 506.

$F(2, 506) = 88,408, p = .000.$

Average mark in the final exam depending on the type of assessment chosen
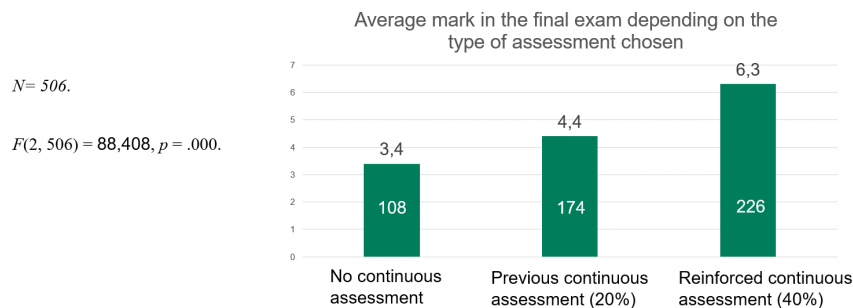
Evaluation of the experience by the students

After the final exam, students were asked for their opinion using a survey. 38% of the students responded. Regarding the reason why they chose continuous reinforced assessment, they felt that it would help them to keep up with the subject and be better prepared for the exam.

Students reported that it helped them to better plan their studies and organised their time. They also noted that they felt more competent in carrying them out as they completed the tasks. Finally, they stated that the continuous assessment helped them prepare for the final exam.

Overall, the students rated the experience very positive and indicated that they would like this type of assessment to be applied in other subjects (Gibbs & Taylor, 2016; Trotter, 2006; Holmes, 2015).

References

Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. (2003). Assessment for learning: Putting it into practice. Maidenhead: Open University Press.

Gibbs, J. C., & Taylor, J. D. (2016). Comparing student self-assessment to individualized instructor feedback. Active Learning in Higher Education, 17(2), 111-123. doi:10.1177/1469787416637466.

González, M. de la O., Jareño, F., & López, R. (2015). Impact of students' behavior on continuous assessment in Higher Education. Innovation: The European Journal of Social Science Research, 28(4), 498-507. https://doi.org/10.1080/13511610.2015.1060882.

Holmes N (2015) Student perceptions of their learning and engagement in response to the use of a continuous e-assessment in an undergraduate module. Assessment and Evaluation in Higher Education 40(1): 1-14.

Isaksson, S. (2007). Assess as you go: The effect of continuous assessment on student learning during a short course in archaeology. Assessment and Evaluation in Higher Education, 33(1), 1–7.

Rengel, Z. (2009). A model formative assessment strategy to promote student-centred self-regulated learning in higher education. US-China Education Review, 6(12), 29–35.

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

Rushton, A. (2005). Formative assessment: A key to deep learning? Medical Teacher, 27(6), 509–513. doi:10.1080/01421590500129159.

Trotter, E. (2006). Student perceptions of continuous summative assessment. Assessment & Evaluation in Higher Education, 31(5), 505-521. doi:10.1080/02602930600679506.

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

GP14

Continuous assessment in the subject of English II for Tourism: development of a methodological proposal for the UNED 60/40 course

M Ángeles Escobar Álvarez, Ana Ibáñez Moreno
Universidad Nacional de Educación a Distancia (UNED) | Spain

The subject under study is "Inglés II para Turismo" (Degree in Tourism, Faculty of Economics, UNED).

This subject is part of the formation in English for students of Tourism and enables them to obtain a B2 level in English. When they finish the course, they are expected to cover most grammatical aspects related to the English language, which would help them to employ in the communicative strategies they may need in the industry of tourism. The assessment method attempts to check development of grammatical and lexical skills in both written and oral productions. To assess the acquisition of contents, there are several tests that are automatically corrected online with a Quiz tool. In addition, there are other tests that assess language production in a more creative way, based on the use of audio description recordings. They can also practice their oral and written skills with extra voluntary assessments: writing entries for the course blog and recording themselves by telling anecdotes or stories that happened to them when travelling related to customer complaints. Additionally, the course book "English Grammar and Learning Tasks for Tourism Studies" (UNED, 2011) is part of study materials and includes a lot of self-assessment exercises on grammar contents.

Introduction

The main aim of this study was two compare two assessment modalities, in order to be able to assess students' communicative skills in English, both oral and written, through the use of audio narration. Both assessment modalities comprised continuous assessment tasks besides the final examination paper; however, the first modality included only one online assessment task that consisted of the 20% of the students' final mark), whereas the second modality (experimental for this study) included more online tasks (40% of the students' final mark). Students could freely choose between these two assessment modes, 80/20 (control group) versus 60/40 (experimental group), as shown in the course guide prepared for this purpose with Genialy: https://view.genial.ly/6027ff792ec856159ae0a30a/learning-experience-challenges-continuous-evaluation-activities-ingles-ii-para-turismo-uned.

The results of the students who chose between the two modes were then evaluated by means of a post-questionnaire and their exam results. A questionnaire was also given to tutors to assess their

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

satisfaction with the new assessment model. The results showed that the students who chose the 60/40 mode obtained a better final mark than those who chose the 80/20 mode.

Objectives

The objectives were met with great success and even exceeded our expectations. These objectives were:

-To create a set of videos on tourism through collaborative work between tutors and teaching staff

-To increase the motivation and involvement of tutors in the subject

-To test whether the 60/40 assessment model contributes to an improvement in students' learning outcomes and motivation

-To test whether the increase in communicative activities with the use of audio description as a didactic resource contributes to improving the attitude and motivation of students regarding the practice of oral English at a distance.

In short, we can say that the primary objective of having implemented the continuous assessment of the subject English II of Tourism of the Degree in Tourism as a continuous assessment subject proposal EXAM 60% + PECS 40% was achieved. The tutors also collaborated extensively in the correction of the optional Continuous Evaluation tasks included for this continuous assessment modality. Thanks to the activities proposed in this optional task, most of the students were able to practice their oral skills of English in professional areas of Tourism, which otherwise they would not have been able to do so.

Good practices

Design and planning of the work

Before the start of the course, a meeting was held with the collaborating tutors, in which they were informed about the project and the tasks to be carried out. In addition, students were informed about the option this year of participating in a 60/40 assessment and were asked to choose between one modality or the other (80/20) before the end of the course, by completing a questionnaire on Google, in order to have a record of their choice. The PECs were prepared with two options for the oral PEC, depending on whether they had chosen modality A or B, in order to evaluate the oral PEC with 20% for students in modality B (60/40) compared to 0% for students who chose modality A (20/80).

Development of the activities carried out

All the students of the subject (231) can be considered as having participated in the project, since we wanted to evaluate not only the results of the students who chose mode B (60/40 assessment) but also the number of students who chose this mode as opposed to those who chose the traditional assessment mode (mode A, 20/80). Although the majority of students chose mode A (75%) compared to 58 out of 231 who chose mode B (25%), the final marks show better results for the majority of the group who chose mode B.

Number of teacher tutors involved and tasks

Five tutors participated in this project by completing all the tasks, although eight tutors signed up. All of them were fully involved and declared to have learned from the project, as well as having experimented with innovative methodologies. The tasks they carried out were several. Firstly, one task was to select 5 videos that contained some interesting audio-visual content to be told, related to the world of tourism, and that could be described without too much difficulty (i.e. that had some "gap" without music or conversations where the narration could be inserted). They had to be videos of a level they considered suitable for their peers, according to the vocabulary they should use. They also had to add a narrated audio script with what they thought could be told from that video. They completed the attached table with all the data, including a first example video). In addition, they had to correct the extra PECs of the students who opted for the 60/40 assessment by means of a rubric, which is also attached in annex 2. On the other hand, they were asked to complete a questionnaire on the development of the project. And finally, they were asked to submit the tutorial activity report.

Presentations in Genialy for the students:

https://view.genial.ly/6027ff792ec856159ae0a30a/learning-experience-challenges-continuous-evaluation-activities-ingles-ii-para-turismo-uned (on continuous assessment);

https://view.genial.ly/600995128918840d054db36a/guide-guia-docente-ingles-para-turismo (Course teaching guide).

Results Obtained

The main results showed that, although only 25 % of students chose the 60/40 assessment mode, the majority performed better with this mode: out of 50 students, only 15 obtained lower final marks than if they had chosen the 80/20 mode. This is shown in the annex, where the marks obtained for each PEC are detailed, as well as the mark they would have obtained if they had chosen mode A (80/20). Furthermore, in the post-questionnaire distributed to the students, they indicated that they found the Continuous Evaluation tasks interesting and motivating. However, most of them also indicated that they found them challenging, and some of them suggested a simpler task design, with shorter and clearer instructions and more realistic expectations, as they had to describe a tourist video of Iceland in a very short time and in a very concise and precise way, as is done in audio description. Thus, we have taken these suggestions into account for the design of the assessment tasks this year. Finally, Table 1 illustrates students' answers to the course satisfaction questionnaire.

Table 1. Students' answers to the post questionnaire

1. I think I have worked by writing skills (83%)

2. I think I have improved my writing skills (86%)

3. I think I have worked my reading comprehension skills (82%)

4. I think I have developed my reading comprehension skills (76%)

5. I think I have learned practical and useful extra vocabulary and expressions (76%)

6. To correct my classmates has helped me reflect about my own learning and English (89%)

7. Collaborative work has helped me work on my own learning process (86%)

8. The use of authentic materials has motivated me to learn English (79%)

9. I have had to be creative, and this has helped me in my own learning process (89%)

10. The description of audiovisual material was a good way to foster my writing skills (90%)

Comparable examples

Comparable examples of Good practices in this same online course of English for Tourism have been published in two papers, given below:

Escobar, M. A. and Ibañez, A. 2018. Las TIC en la enseñanza del inglés para fines específicos: una propuesta metodológica. In Encuentro Journal 27. (pp. 38-52)
http://www3.uah.es/encuentrojournal/index.php/encuentro/article/view/4

Ibañez, A. & Escobar, M.A. 2021. On the Use of Video Description in an Online Collaborative Writing Project with ESP Learners of Tourism Studies. In Language Teaching Research Quarterly 23. 45-63. DOI: doi:10.32038/ltrq.2021.23.05

References

Moreno, A. I., & Vermeulen, A. (2013). Audio description as a tool to improve lexical and phraseological competence in foreign language learning. In Tsagari, D., & Floros, G. (Eds.), Translation in Language Teaching and Assessment (pp. 41-65). Newcastle upon Tyne: Cambridge Scholars Publishing. Ibáñez Moreno, A., & Vermeulen, A. (2014). La audiodescripción como recurso didáctico en el aula de ELE para promover el desarrollo integrado de competencias. In Orozco, R. (Ed.), New Directions in Hispanic Linguistics (pp. 264-292). Newcastle upon Tyne: Cambridge Scholars Publishing.

Ibáñez Moreno, A., & Vermeulen, A. (2015). Profiling a MALL app for English oral practice — A case study. In García-Laborda J., Bárcena, E., & Traxler, J. (Eds.), Mobile Technology for Foreign Language Teaching: Building Bridges between Non-Formal and Formal Scenarios, special issue of the Journal of Universal Computer Science, 21(10), 1339-1361.

Ibáñez Moreno, A., & Vermeulen, A. (2017). The ARDELE project: Controlled empirical research on audio description as a didactic tool to improve (meta)linguistic competence in foreign language teaching and learning. In Díaz Cintas, J., & Nikolic, K. (Eds.), Fast-Forwarding with Audiovisual Translation (pp. 195-211). London: Multilingual Matters.

Talaván, N., & Lertola, J. (2016). Active audiodescription to promote speaking skills in online environments. Sintagma, 28, 59-74. doi: https://doi.org/10.21001/sintagma.2016.28.04

Talaván, N., Ibáñez, A., & Bárcena, E. (2017). Exploring collaborative reverse subtitling for the enhancement of written production activities in English as a second language. ReCALL: the Journal of EUROCALL, 29(1), 39-58. doi: https://doi.org/10.1017/S0958344016000197

E-assessment in the TRADILEX project

Noa Talaván, Antonio Tinedo-Rodríguez
Universidad Nacional de Educación a Distancia (UNED) | Spain

TRADILEX is a project which aims at studying how Didactic Audiovisual Translation fosters language learning. It has been implemented in a virtual course through a series of Lesson Plans which contain AVT tasks, and two language skills tests. Assessing the tasks and the language skills in a virtual and asynchronous environment was a paramount challenge. There was a need to have all the data centralised in a concrete platform because making use of different applications was confusing for both, the teachers, and the students in the course. Therefore, two key elements were taken into account: the importance of feedback and the importance of scaffolding. That is why the team chose Moodle because it facilitates both, the task of providing students with instant feedback and the inclusion of scaffolding in the form of Didactic-Mediated Dialogue in the virtual course through HTML5 code. The resources of the virtual platform allowed us to create tasks with e-rubrics which facilitate assessment and foster communication through specific applications. Besides, teachers have their own virtual space with video tutorials about the FAQs and fora to share their thoughts on the process of assessment. E-assessment is thus a key dimension of the TRADILEX project.

Introduction

Assessing in virtual environments is a challenge and a need for the 21st century education. Assessment goes beyond accountability because, according to Camilloni, Celman, Litwin, & Palou de Maté (1998), it is an essential component of a planning for it provides both, students, and teachers, with relevant information on the process of learning and on the process of teaching. E-assessment has the advantage of providing students with immediate feedback and it can be implemented in different ways such as a web-based system with assessment tools (Alruwais, Wills, & Wald, 2018, p.34).

Assessment is crucial for the TRADILEX project because after doing each activity in the course which aims at fostering language learning through Audio-visual Translation (AVT) tasks, students receive their feedback within a maximum span of time of seven days. Fernández Abascal et al. (2010) highlighted the importance of extrinsic motivation, which is a type of operant conditioning, when it comes to achieving a goal or completing a task, because you can alter the level of motivation by provoking certain stimuli. Burgers, Eden, van Engelenburg, & Buningh, (2015) highlighted how positive feedback is a booster for motivation.

When designing the TRADILEX project, the washback effect of the tests and the activities included on it was something crucial because as Harris & McCan (1994) affirm, the washback effect, which is the influence of a test in the course, plays an essential role since it is linked to motivation. According to Harries & McCan (1994, p. 27), in the field of language learning, a good test is that test which

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

contains authentic and real-life examples of tasks learners will have to perform in the future. That is why the initial and the final tests for B1 and B2 used in TRADILEX were thoroughly designed by members of the team. The names of these tests were ITIS (Initial Test of Integrated Skills) and FITIS (Final Test of Integrated Skills) (Couto-Cantero, Sabaté-Carrové, & Gómez-Pérez, 2021). Even though the tests were originally designed for online environments, its implementation was a challenge that has been improved progressively according to the perceptions of both teachers and students in pre-piloting experiences.

Furthermore, the e-assessment dimension of the TRADILEX project goes beyond testing the language skills at the beginning and at the end of the project. García-Aretio (2014) focused on the importance of formative assessment in the design of e-learning courses, and it impregnates the TRADILEX project because every single task is assessed through an *ad hoc* interactive rubric.

Technological challenges

A project such as TRADILEX, which is fully developed in online environments, necessarily faces technological challenges such as:

- Choosing an appropriate virtual platform.

- Didactic-Mediated Dialogue (DMD).

- Its asynchronous nature.

- Dropout rate.

Choosing an appropriate virtual platform that centralizes the data is crucial when it comes to designing the e-assessment dimension of a project which is fully implemented online. Making use of multiple platforms could be discouraging for both teachers and students. In this case, the research team took the decision of making use of *Moodle*. The main advantages of Moodle are the following ones:

- It is a free and open-source Learning Management System (LMS).

- It includes apps for assessment and for learning: fora, chats, blogs, collaborative glossaries, testing tools, etc. Besides, more apps by developers may be installed to meet specific needs of the project.

- It is based on a constructivist approach of learning in which social communication is at the very core.

- It is constantly updated.

Following García-Aretio (2014), DMD plays an essential role when it comes to designing virtual courses because it somehow replaces the role of the teacher by providing students with specific and clear instructions on how to follow the course.

Figure 1. DMD in the virtual course

In the TRADILEX project, DMD has taken a prominent role and it is available in English and in Spanish. It has been embedded in the course through HTML and there is also a PDF guide available for students. Besides, each lesson plan has its own guidelines to facilitate the process.

The main objective of this thorough design is to avoid dropout rate. Besides, taking the asynchronous nature of the course into account, different fora were created for specific purposes so that students and teachers could easily communicate with each other.

Figure 2. Fora in the virtual course

Good Practices

The good practices consist of the development of a system which aims at facilitating the communication between teachers and students through a series of e-rubrics for tasks and for tests that allows students to know their marks and their feedback when the teacher has just marked them as it is displayed in Figure 3.

Figure 3. One of the rubrics used in TRADILEX

The inclusion of communication tools as shown in Figure 2 and the thorough design of the DMD as displayed in Figure 3 are also good practices of the project. Students and teachers involved in TRADILEX show their satisfaction and express their positive feedback on the process of virtualisation and centralisation of e-assessment. In fact, the very nature of Moodle fosters ubiquity so teachers can assess anytime anywhere, by providing them with the flexibility they need. Besides, a specific space has been created for teachers so that they can share their thoughts on the process. This space contains video tutorials with the FQAs to facilitate the assessment task.

References

Alruwais, N., Wills, G., & Wald, M. (2018). Advantages and challenges of using e-assessment. *International Journal of Information and Education Technology*, 8(1), 34-37.

Burgers, C., Eden, A., van Engelenburg, M. D., & Buningh, S. (2015). How feedback boosts motivation and play in a brain-training game. *Computers in Human Behavior*, 48, 94-103.

Camilloni, A., Celman, S., Litwin, E., & Palou de Maté, M. d. (1998). *La evaluación de los aprendizajes en el debate didáctico contemporáneo*. Paidós.

Couto-Cantero, P., Sabaté-Carrové, M., & Gómez-Pérez, M. d. (2021). Preliminary design of an Initial Test of Integrated Skills within TRADILEX: an ongoing project on the validity of audiovisual translation tools in teaching English. *Research in Education and Learning Innovation Archives*, 73-88.

Fernández Abascal, E. G., García Rodríguez, B., Jiménez Sánchez, M. P., Martín Díaz, M. D., & Domínguez Sánchez, F. J. (2010). *Psicología de la motivación.* Ramón Areces.

García-Aretio, L. (2014). *Bases, mediaciones y futuro de la educación a distancia en la sociedad digital.* Síntesis.

Harris, M., & McCan, P. (1994). *Handbooks for the English Classroom: Assessment.* McMillan.

Annex II:

Assessment and recognition of MOOC courses and pathways

Assessment and recognition of MOOC courses and pathways

This section provides a framework for assessment and recognition of courses offered on MOOC platforms. It is based on an extensive report produced by the Knowledge Alliance: Iniesto, F. (2021) Models and Guidelines for Assessment and Recognition of MOOCs and microcredentials. EMC-LM Project. CC-BY 4.0. and on: Habib, M. and Sanzgiri, J. (2020). Compendium on good practices in assessment and recognition of MOOCs for the EU labour market. EMC-LM Project. CC-BY 4.0. See both on: https://emc.eadtu.eu/emc-lm/results-menu

Both reports consider three important elements of assessment and recognition in the context of MOOC platforms: identity verification (ID verification), summative assessment processes and categories for microcredential recognition.

This section is applicable to all layers of qualifications (see section on qualifications). As EMC has developed standards for the CMF qualification, it is focusing on this. For example, a microdegree can be considered instead.

Fulfils CMF microcredential definition

Microcredential
Microcredentials aim for small units of study that meet the desired outcomes. Lay foundations for a new qualification to address the needs of employers and learners looking for small units of study that meet their career goals and/or to develop higher education-level skills. Enable Courses produced to the CMF to be recognised towards Formal Qualifications, as they will be designed in accordance with recognised national qualification frameworks. Finally, enable Courses produced to the CMF to be stackable between different higher education institutions in Europe and beyond to support personalisation of learning.

Course
The course is defined by CMF as a plan of study which includes a Summative Assessment created and evaluated by a nationally recognised university under its national quality assurance framework. Course content is aimed at employees and should combine a mix of theory and practice to ensure it has direct relevance to the workplace.

According to the CMF, a microcredential should award a transcript that sets out the course content, learning outcomes, total study hours, EQF level and number of credit points (ECTS) earned. It should be designed for those studying at university level – anywhere from first-year undergraduate (EQF Level 5) to doctoral standard (EQF Level 8).

Study time & workload

The CMF indicates the total study time including assessment is 100 to 150 hours which translates to 4-6 in the European Credit Transfer and Accumulation System (ECTS). The expectations of a course are that it is designed so that the number of hours of study per week are suited to learners who will need to fit study around full-time work and familial responsibilities.

Assessment and recognition

ID verification

The CMF specifies that the course should deploy a reliable method of ID verification at the point of the summative assessment. This should comply with the provider's policies and/or be a method that is widely adopted across platforms. The Compendium defined three levels depending on their reliability: "basic", "good" and "better". Methods marked as "basic" should be accompanied by another method marked as "good" or "better" to grant verification. The following ID verification methods are recommended for microcredentials:

- Platform ID Verification. Basic. Match learner's own photo via a selfie or a webcam with an ID
- Provider Registration. Basic. Learners complete a registration process with the provider.
- Interviews.
  - Basic – On-site oral interview. An interview at the provider's premises
  - Good – Online interview. A short online interview to verify student identity and work
- Recorded presentations. Better. Recording a presentation as part of a capstone project

As reported in the BizMOOC project it is important to consider the accessibility and be compliant with W3C accessibility guidelines7 and WCAG 2.0 according to the European Commission.

Assessment

The CMF indicates a microcredential must employ a rigorous summative assessment method that allows the award of academic credit. This credit can be achieved either directly following successful completion of the course or via recognition of prior learning upon enrolment as a student on the provider's course of study. The Compendium identified several types of assessment and their combinations. The following types of assessment are recommended for microcredentials although all, as noted above, have some limitations:

- Computer-graded assessment. This could take the form of a final exam, or quizzes based on case studies or projects
- Teacher-graded assessment. Teacher-graded assessments are often associated with essays and capstone projects
- Multi-type assessment. Mixture of computer-graded assessment and teacher-graded assessment.

Assessment types should as well consider their accessibility.

Accreditation and recognition

The CMF suggests the course should provide a transcript (certificate supplement) that sets out the course content, learning outcomes, total study hours, EQF9 level and number of credit points (ECTS)10 earned. In addition, a credible industry backer for a microcredential might endorse its relevance for employment purposes. Endorsement is not always necessary, especially if the university's brand or the course subject would not benefit from a non-university endorsement. The Compendium has identified several methods for recognition:

- Academic Credit. Offering transferable academic credit which is flexible and offers convenience for students. This can be done by awarding ECTS or by making agreements with universities that they will accept the credits (Transferable).
- Professional Credit. Awarding professional credit hours or credits from formal professional accreditation bodies (Formal). The professional certificate is backed by a business leader to enhance its credibility and offer more work relevance (Endorsement).
- Combined: Offering academic and professional credits in the same programme. This offers more opportunities for learners than offering only one form of credit.

MICROBOL and MicroHE projects identify microcredentials should be awarded in a digital and signed format, for example, the identified Europass Digital Credentials (EDC)11. As well as the need to have a strategy that addresses recognition of microcredentials.
OEPASS and ECCOE project indicate the transcript should be issued in a widely spoken language or an easy-to-read graphical format, in a standardised form, according to standardised processes.

Quality Assurance framework

The CMF suggests the ENQA Guidelines (ESG) should be the reference framework used12. Every microcredential must be associated with the award of credit, either directly or via recognition of prior learning. In that regard, the quality is assured by providers confirming that the microcredential passes the provider's standard quality assurance processes. Providers are responsible for ensuring that their internal quality assurance mechanisms follow strict Internal quality criteria and procedures, in line with national quality standards, creating a guarantee for quality.

Framework for assessment and recognition of microcredentials

This framework maps the elements of assessment and recognition, allowing MOOC platforms, universities, and employment services to place microcredentials and similar courses in context. The EMC-LM project is piloting this framework on different courses and platforms in autumn 2021 so that the framework can form the basis for assessment and recognition between MOOC platforms in Europe.

The two checklists below can be used to check:

- that a course is a microcredential, according to the Common Microcredential Framework13 and
- that it is following current best practices for assessment and recognition.

Apply the following two checklists to the microcredential considering the explanation of terms from the "Models and guidelines for assessment and recognition of MOOCs" based on CMF and the "Compendium on good practices in assessment and recognition of MOOCs" included at the end. The checklists are designed to be used at the planning and design stages of microcredentials, to allow check if the best assessment and recognition approaches are in place, allowing reflection.

Each of the criteria has information to help the evaluator to know what to evaluate and how to proceed to the test. Space for comments has been added for each of the criteria to allow to add any comment that can enrich the evaluation. The rating method for each of the criteria is as follows:

No. The feature to test is not correctly addressed:
- **NA (Not achieved)**: The feature to test is missing.
- **PA (Partially achieved)**: The feature to test is available but not integrated.

Yes. The feature to test is correctly addressed:
- **LA (Largely achieved)**: The feature to test is available and partially integrated.
- **FA (Fully achieved)**: The feature to test is available and fully integrated.

If the criterion is not applicable none of the previous options is selected, comments should be added.

Review "Fulfils CMF microcredential definition"

Levels: NA (Not achieved); PA (Partially achieved); LA (Largely achieved); FA (Fully achieved)

Dimension	Criteria	Fulfils microcredential definition			
		NA	PA	LA	FA
1.1 Microcredential	The course defines units of study which do one or more of the following: • lay the foundations for learners to gain a new qualification that will enhance their employability • are designed to meet the career goals of learners • develop higher-education level skills				
	Comments:				
	The course defines units of study which enable the course to be counted towards formal qualifications issued in line with recognised national qualification frameworks				
	Comments:				
	The course defines units that can be combined with those at other higher education institutions				
	Comments:				
1.2 Course	The course includes a plan of study which includes a summative assessment created and evaluated by a nationally recognised provider under its national quality assurance framework				
	Comments:				
	The course combines theory and practice that are directly relevant to the workplace.				
	Comments:				
	The course is levelled at Level 4 - 8 in the EQF or the equivalent levels in the provider's national qualification framework considering a combination with ECTS (doctorate, bachelor, master, undergraduate level).				
	Comments:				

Dimension	Criteria				
1.3 Study-time & Workload	The course has a total study time, including completion of the summative assessment of 100-150 hours				
	Comments:				
	The course is designed so that the number of hours of study per week is suited to learners who will need to fit study around full-time work and/or familial responsibilities				
	Comments:				

Review "Assessment and recognition"

Levels: NA (Not achieved); PA (Partially achieved); LA (Largely achieved); FA (Fully achieved)

Dimension	Criteria	Assessment and recognition			
		NA	PA	LA	FA

2.1 ID verification	The course operates a reliable method of ID verification at the point of assessment that complies with the recognised University's policies or is widely adopted across platforms using (more than one could be used). Methods defined as "basic" should be accompanied by another method marked as "good" or "better" to grant verification for full achievement:
	• Platform ID Verification. (Basic)
	• Provider Registration. (Basic)
	• Interviews.
	  o On-site oral interviews (Basic)
	  o Online interviews (Good)
	• Recorded presentations (Better)				

	Comments:				
	The ID verification method has been checked as accessible for participants with accessibility needs.				
	Comments:				
2.2 Assessment	The course provides a summative assessment to enable the award of academic credit via recognition of prior learning upon enrolment for specified qualifications offered by the course provider				
	Comments:				
	The course provides a summative assessment that enables the award of academic credit via completion of the course using: • Computer-graded assessment • or Teacher-graded assessment • or a mixture of Computer-graded assessment and Teacher-graded assessment				
	Comments:				
	The summative assessment (s) has been checked as accessible for participants with accessibility needs.				

Designing online assessment - solutions that are rigorous, trusted, flexible and scalable

	Comments:				
2.3 Accreditation and recognition	The course provides at least a method for recognition: • Academic Credit: Formal and transferable. • Professional Credit: Formal and endorsement • Combined: Academic and professional				
	Comments:				
	The course should be awarded in a digital and signed format, for example, the identified Europass Digital Credentials (EDC).				
	Comments:				
	The course provider has a strategy that addresses the recognition of microcredentials.				
	Comments:				
	The transcript is issued in a widely spoken language or an easy-to-read graphical format, in a standardised form, according to standardised processes.				
	Comments:				
2.4 QA framework	The quality is assured by passing the normal provider quality assurance processes: • The course offers academic credit and is quality assured using the same procedures that are used for other courses for academic credit offered by the institution. • The course offers professional credit and is quality assured using the same procedures that are used for other courses offering similar professional credit				
	Comments:				
	The provider of the course applies internal quality assurance mechanisms following internal quality criteria and procedures.				
	Comments:				

Definition of terms

- "Accessible". For both ID verification and summative assessment in case, they include web content it needs to comply with WCAG[14] accessibility guidelines. Videos need to include subtitles and transcription and participants can download, store, and use resources through the process without an internet connection
- "Accreditation and recognition". Methods for recognition for microcredentials are:
  o **Academic Credit**. Offering transferrable academic credit which is more flexible and offer more convenience for students. This happens either through awarding ECTS or through agreeing with a list of universities to accept the credits (**Transferable**).
  o **Professional Credit**. Awarding professional credit hours or credits from professional accreditation bodies (**Formal**). The professional certificate is backed

by a business leader to enhance its credibility and offer more work relevance (**Endorsement**).

  o **Combined**: Offering academic and professional credits in the same programme. It offers more opportunities for learners.

- "ID verification". The course deploys a reliable method of identity verification (ID verification) at the point of the summative assessment. that complies with the provider's policies and/or is widely adopted across the Platforms. Three levels depending on their reliability are defined: "basic", "good" and "better". Methods marked as "basic" should be accompanied by another method marker as "good" or "better" to grant verification. The following ID verification methods are recommended for microcredentials:

  o **Platform ID Verification.** *Basic*. Match learner's photo via a selfie or a webcam with an ID

  o **Provider Registration.** *Basic*. Learners complete a registration process within the provider.

  o **Interviews.**

    ▪ *Basic*. Conducting an interview at the provider premises (On-site oral interviews)

    ▪ *Good*. Conducting a short online interview to verify student identity and work (Online interviews)

  o **Recorded presentations.** *Better*. Recording a presentation as part of a capstone project (Recorded presentations)

- "ECTS". The European Credit Transfer and Accumulation System[15]. The ECTS is a tool of the European Higher Education Area for making studies and courses more transparent.

- "EDC". Europass Digital Credentials (EDC)[16]. A Europass Digital Credential is a digital file, issued by the institution where you studied. It describes your qualification, and can also include information on your classes, grades, projects and other achievements.

- "EQF". The European Qualifications Framework (EQF)[17] is a common European reference framework whose purpose is to make qualifications more readable and understandable across different countries and systems.

- "Formal Qualifications" Qualifications are defined within a national qualification framework and regulated by the relevant Quality Assurance authority.

- "Quality Assurance Framework". Every Microcredential must be able to award credit, either directly or via recognition of prior learning. In that regard, the quality is assured by participants to pass the normal provider quality assurance processes. ENQA Guidelines (ESG) should be the reference framework used[18].

- "Recognised Provider". An institution with degree awarding powers, which is regulated by the relevant applicable national education quality assurance authority.

- "Recognition of Prior Learning". The policy is operated by a Recognised Provider for the identification, assessment and formal acknowledgement of past learning and achievement, which is considered when admitting a student to a formal qualification.

- "Summative Assessment". An activity that evaluates what a learner has achieved after a period of study, relative to the learning aims and in accordance with a national qualification framework. A microcredential must employ a rigorous summative assessment method that allows the award of academic credit. That is achieved either directly following successful completion of the course or via recognition of prior learning upon enrolment as a student on the provider's course of study. The following types of assessment, considering their limitations, are recommended for microcredentials:

  o **Computer-graded assessment**. These assessments could be a final proctored exam or quizzes based on case studies and coding projects

- o **Teacher-graded assessment**. Teacher-graded assessments are often observed with essays and capstone projects
- o **Multi-type assessment**. A mixture of computer-graded assessment and teacher-graded assessment.
- "Workload". A measure expressed in hours of all learning activities that may feasibly be required for the achievement of the learning outcomes.

Contributing Institutions

EADTU | Netherlands
Open University | United Kingdom
Open Universiteit | Netherlands
FernUniversität in Hagen | Germany
Open University | Israel
University of Ljubljana | Slovenia
CALED | Ecuador
Universidade Aberda | Portugal
Universitat Oberta de Catalunya | Spain
UniDistance | Switzerland
Tampere University of Applied Sciences| Finland
Thomas More University College | Belgium
Artevelde University of Applied Sciences | Belgium
Hellenic Open University | Greece
Universidad Nacional de Educación a Distancia | Spain
National Center for Distance Education | Czech Republic
Jyväskylä University | Finland
Johannes Kepler Universität | Austria
Open University | Cyprus
ČADUV | Czech Republic

EADTU