Integrity and Motivation in Remote Assessment

Henrietta Carbonel
UniDistance Suisse, Switzerland
Henrietta.carbonel@unidistance.ch

Angelo Belardi
UniDistance Suisse, Switzerland
Angelo.belardi@unidistance.ch

Jen Ross
University of Edinburgh, UK
Jen.ross@ed.ac.uk

Jean-Michel Jullien
UniDistance Suisse, Switzerland
Jean-michel.jullien@unidistance.ch

Abstract

The shift to distance education during the COVID-19 pandemic highlighted the potential and preference of online learners for remote assessment. Yet, concerns about academic integrity, especially with tools like ChatGPT, prompted a reevaluation of remote evaluation methods. Universities responded by returning to on-campus exams or relying on technological surveillance, with the limits of such approaches from a pedagogical and values perspective. This research offers a third path, re-imagining with the main stakeholders in higher education (teachers, students, institutional leaders, and pedagogical experts) what quality remote assessment could look like in the future. To address this, we took a collaborative speculative design approach. The two-day workshop comprising 34 education stakeholders identified four key characteristics of quality remote assessments: (1) ensuring authorship, (2) designing meaningful assessments, (3) fostering a feeling of autonomy, and (4) reducing stress by fostering a feeling of competence and giving space for failure. We show that the last three characteristics align with the first two psychological needs of Self-Determination Theory (SDT), autonomy and competence. Thus, by designing assessments with such characteristics, teachers will support autonomous motivation and, consequently, engagement, performance, and academic integrity. However, the third need of SDT, relatedness, was largely overlooked and should be considered in further work. The results also highlight the need for structure and a space for failure, which may thwart autonomous motivation. Teachers must carefully balance these seemingly contradictory requirements of remote assessment design. Finally, the collaborative nature of the research led to a change in the practice of some participants.

*Keywords***:** Remote assessment, online assessment, speculative methods, academic integrity, motivation, self-determination theory

Carbonel, H., Belardi, A., Ross, R., Jullien, J-M. (2025) Integrity and motivation in **r**emote **a**ssessment. *Online Learning 29*(2), pp. 25–46. https://doi.org.10.24059/olj.v29i2.4309

The move to entirely distance education during the COVID-19 pandemic highlighted the feasibility and student preference for remote assessment (Cross et al., 2023). However, cheating is a primary concern for teachers, students, and institutions. Are remote assessments measuring the individual student's achievements? Will the value of the diploma be upheld? These worries were heightened by the release of ChatGPT in November 2022, a freely accessible AI chatbot able to answer all questions eloquently, if not always correctly. For online universities, carrying out quality remote assessments is one of the central pedagogical challenges they are currently facing. Three main reactions to these changing conditions in higher education have been a return to on-campus examinations, increased technological surveillance, and re-designing assessment. Given the specific needs of online students and the limits of what can be tested in time-constrained, pen-and-paper exams, on the one hand, and the issue of trust in a heavily proctored environment on the other, we chose to focus on the third option, taking a collaborative and speculative approach. In a two-day workshop, 34 participants (20 women, 14 men) representing the different stakeholders in higher education (teachers, students, institutional leaders, and pedagogical experts) from 10 European and North American institutions collaborated to imagine what quality remote assessments could look like, reacting to speculative scenarios and designing prototypes using speculative design.

Four overarching themes emerged from the workshop. The first theme focused on the issue of authorship and how it can be authenticated at a distance, either through oral exams or by paying attention to the learning process. The three following themes concerned designing meaningful assessments, supporting autonomy, and reducing stress through a feeling of competence while maintaining a space for failure. These findings partially align with the established values of validity and fairness in assessment, although the question of reliability is missing (Forsyth, 2022). However, the novelty is the focus on motivation, with the last three features clearly aligned with the basic psychological needs that support motivation according to self-determination theory (SDT) (Ryan & Deci, 2020). In the workshop, motivation was little explicitly discussed. Traditionally, the external motivators of rewards and punishment were considered sufficient for students to engage in the assessment tasks. However, workshop participants suggested ways of supporting autonomy and competence, which have been shown by SDT to foster autonomous motivation and positively affect student engagement, interest, and performance (Ryan & Deci, 2020), all valued behaviours in relation to assessments. However, participants also highlighted certain factors essential to distance learning, such as structure and space for failure, which may conflict with autonomous motivation.

In the next section, we discuss the question of cheating and current approaches to remote assessment. Then, we describe our collaborative and speculative method. In the third section, we share the results of the workshop. Finally, we discuss how SDT offers a framework for designing assessments and the need to balance it with other online education requirements, such as structure and space for failure.

Before we continue, a clarification of terminology. Online assessment refers to assessments taken using digital tools and technologies via the internet or intranet and may be carried out at a distance or on-campus. Remote assessments are conducted at a distance, without

geographical constraints (other than an internet connection). Nowadays, they usually include the use of technologies to share the results, although the actual work may be done on- or offline. Both types may be synchronous or asynchronous.

Current Approaches to Remote Assessments and Academic Integrity

The landscape of academic integrity and assessment methods is evolving rapidly. This section offers a brief overview of academic cheating, its causes, and the three main approaches to solving these issues.

Contract cheating has become so widespread (Newton, 2018) that it has its international day, "International Action Against Contract Cheating," and the UK parliament legislated to ban essay mills (Media Officer, 2022). In the case of remote assessments with open access to Generative AI, the opportunities for cheating have increased (Jantos, 2021). However, research on the evolution of cheating over the last few years remains limited and does not always point to an increase in cheating (Baillifard & Martarelli, 2023). Moreover, a large Australian study showed that cheating was more prevalent in invigilated exams than in take-home assessments (Bretag, et al., 2019). Historically, the perception of what constitutes cheating has been fluid. Practices such as using calculators in exams, once prohibited, have now become permissible (Bulletin Officiel, 2018). Rules may also vary, depending on the level of study (e.g., the use of reference management software such as Zotero). As cognitive testing levels and learning objectives change, so do the conditions of the exams. Thus, the conditions of remote exams are not fixed but need to be adapted to a course's specific context and objectives.

Research on academic integrity focuses on three main areas and remains practical: the measurement of cheating, its causes, and potential solutions. A plethora of factors have been studied, including students' understanding of what constitutes cheating, the presence of an honour code, academic level, stress, gender, age, previous grades, dissatisfaction with the learning environment, the normalisation of cheating, language barriers, institutional approaches to cheaters, field of study, teaching medium, and the expected outcomes of cheating (Gallant, 2022; Newton, 2018). As for solutions to cheating, they include holistic approaches such as training students about ethical conduct and proper use of sources, educating teachers on detecting cheating, as well as introducing legal and institutional strategies.

Faced with the ongoing issue of contract cheating and the new challenge posed by Large Language Models (LLMs), universities and teachers have taken three main approaches: returning to on-campus exams, including pen and paper assessments, introducing online proctoring, and trying new approaches to assessment.

Returning to On-Campus Exams

Following the end of social distancing and lockdowns due to the COVID-19 pandemic, most traditional universities and some online universities (e.g., UNED, Anadolu Open University, or Universidade Aberta) returned to on-campus exams, although often maintaining elements of continuous assessment. After ChatGPT was introduced, some even called for the return to pen-and-paper exams (Cassidy, 2023). However, it seems challenging to offer valid assessments of all learning outcomes in a mode far removed from most learning and working experiences. Moreover, in the very large study by Bretag et al. (2019), students reported

engaging in more contract cheating for invigilated exams (particularly in those including Multiple Choice Questions) than take-home assignments. Thus, the return to tabletop exams is not a cure-all. Moreover, the mission of distance universities is to serve populations that cannot attend traditional universities due to work, family, health, or location constraints. Offering the possibility of completing their studies entirely remotely, including valid assessments, appears essential to student success.

Introducing Technological Surveillance

The second option is a high-tech approach to remote assessment. Educational technologies (Ed Tech) today promise a solution to all our problems, and higher education is no exception. In the face of plagiarism, collusion, or contractual cheating, Ed Tech offers digital solutions, such as plagiarism detectors or online proctoring. While online proctoring companies promise secure exams, research often contradicts their claims (Bergmans et al., 2021). Synthetic text detectors are unreliable; OpenAI retracted its own within six months due to inaccuracy (Kirchner et al., 2023).

Moreover, these technologies create a surveillance culture, forcing students to be monitored "for their own good" and the smooth running of higher education (Ross & Macleod, 2018, p. 238). In addition, these technologies are not neutral and affect the relationship between teacher and student (Lee & Fanguy, 2022). Trust is at the heart of the educational relationship, necessary to dare to ask questions, take risks, or accept feedback. However, the systematic use of fraud detection tools turns the students into a priori suspects, altering this relationship. What is more, in education, the means contribute qualitatively to the character of the results produced (Biesta, 2007; Carr, 1992). Will imposing surveillance on students during their studies mean they will be more accepting of surveillance in society and the workplace? Finally, academic integrity cannot be limited to not being caught; it is a fundamental value of the academic world and beyond and, therefore an essential pedagogical issue (Carless, 2009; Carter & Blanford, 2016; Townley & Parsell, 2004). However, there are deep concerns when considering changing assessments, even when the current format does not meet the learning needs. Trust needs to be built on all sides (Carless, 2009). Moreover, there is no single best solution.

New Approaches to Remote Assessments

We start from the fundamental question of the core purpose of assessments in a rapidly changing world. Information is ubiquitous, technologies can perform tasks at increasingly more sophisticated levels, and the problems to be solved are complex (e.g., the climate crisis). New assessment paradigms aim to engage with these changes to better prepare students for citizenship and work (Bearman et al., 2020). Assessment is a complex or wicked problem with multiple purposes (Forsyth, 2022) and ever-changing contexts. In higher education, quality assessment should promote higher cognitive learning, be sustainable, spaced, authentic, and reflective, offer students agency, encourage critical thinking, and allow the exploration of new avenues while representing knowledge in diverse ways (Bayne et al., 2020; Boud, 2000; Boud & Falchikov, 2007; Carless, 2009; Gough, 2013; Ibarra-Sáiz et al., 2021). Moreover, if the university is, among other purposes, to prepare students for working life, then it must teach them to work under similar conditions, including collaboration and the use of tools (Dawson, 2020). These new assessment forms emphasise preparation for living and acting in a changing, complex world (Morin, 2014, 2015).

Rather than focusing on surveillance, detection, or LLM avoidance, this research seeks to re-imagine what quality remote assessments might look like in a digital world. Using a speculative approach, we open the range of possibles while highlighting the questions that need to be addressed.

Theoretical Framework

SDT offers a valuable framework for discussing our results around the questions of motivation and the basic needs of autonomy, competence, and relatedness. We briefly present the theory first conceptualised by Ryan and Deci (1985, 2020) in the 1970s and backed by substantial empirical research, and will return later to discuss it in relation to our findings.

Motivation was described by Maehr and Meyer (1997, p. 373) as reflected in the actions and affects of a person, as "seen in the *direction*, *intensity*, *persistence* and *quality* of what is done or expressed." However, not all types of motivation lead to the same engagement and outcomes. For our purpose, motivation can be separated into two main types: controlled motivation and autonomous motivation.

According to Deci and Ryan (2008), controlled motivation (including external regulation and introjection) concerns behaviours linked to an external locus of causality, whether through external rewards (e.g., grades) or punishments (e.g., failing a course) or the more internalised rewards of self-esteem or avoidance of anxiety and shame. Autonomous motivation includes intrinsic motivation, when students engage in activities for their own sake (Audrin & Coppin, 2022), driven by genuine interest and enjoyment, but also autonomous external motivation, when students have internalised the locus of causality and recognise the value of an activity or find it congruent with their own values and interests.

> Autonomous extrinsic motivations share with intrinsic motivation the quality of being highly volitional, but differ primarily in that intrinsic motivation is based on *interest and enjoyment* people do these behaviours because they find them engaging or even fun, whereas identified and integrated motivations are based on a sense of *value*—people view the activities as worthwhile, even if not enjoyable. (Ryan & Deci, 2020, p. 3 italics in the original).

Research has shown that autonomous motivation leads to greater interest, engagement in activities, persistence, and enhanced performance (Deci & Ryan, 2008). Externally controlled motivation, in contrast, leads to a greater feeling of pressure and lower levels of interest and performance, especially at higher cognitive levels (Grolnick & Ryan, 1987).

Most importantly for our purpose, SDT affirms that autonomous motivation can be fostered (or thwarted) by the environment. The level of autonomous motivation is strongly related to meeting three basic psychological needs identified as a sense of autonomy, competence, and relatedness (Deci & Ryan, 1985; Ryan & Deci, 2000, 2020). Ryan and Deci describe *autonomy* as a student's sense of initiative and ownership over their learning, as opposed to being controlled through the external pressure of rewards and punishments. *Competence* is the feeling of mastery or of being able to succeed. It is supported by optimal

challenges, positive feedback, and growth opportunities. *Relatedness* is linked to the feeling of belonging when teachers and peers are respectful and caring. When these fundamental psychological needs are fulfilled, research has shown that students exhibit greater autonomous motivation and are thus more engaged, interested and persistent, take a deeper approach, carry out more challenging activities, have better academic results, cope better when they fail, and generally enjoy higher levels of well-being (Ryan & Deci, 2000; Ryan & Frederick, 1997).

Motivation is not a stable, personal characteristic of learners but is complex, multifaceted and sensitive to the changing context (Hartnett et al., 2011). Numerous studies in education and across cultures have shown that when we design environments to support these needs, students reach higher levels of autonomous motivation, leading to positive assessment outcomes. However, it is also noteworthy that thwarting these needs (e.g., via performance goals, deadlines, or a controlling environment) is not neutral but reduces motivation, self-esteem, risk taking on the one hand, and increases loneliness, frustration and cheating on the other (Bartholomew et al., 2011; Bartholomew et al., 2011; Deci et al., 1999; Grolnick & Ryan, 1987; Kanat-Maymon et al., 2015).

A Collaborative and Speculative Method to Re-Imagine Remote Assessments

When researching education futures, traditional evidence-based research does not offer the possibility to imagine multiple alternative approaches. In “Why What Works Still Won’t Work: From Evidence-Based Education to Value-Based Education” (2010), Biesta shows that there are knowledge, efficacy, and practice deficits when traditional scientific methods are applied to education. The first two points are particularly relevant when looking at the future. First, the world changes as a result of our interventions, and the objects of research do not remain untouched. Scientific experiments can show what has worked in the past (which is valuable and needed knowledge) but without assurance that it will continue to work in the future. There will always be a knowledge deficit about the effect of an intervention in the future. Moreover, education systems are “open, semiotic and recursive” (Biesta, 2010, p. 500), an action in education does not have a linear, deterministic consequence, but at most probabilistic, always complex, leading to an efficacy deficit. We therefore, took an approach better adapted to the purpose of the research: a collaborative speculative design method often used when studying the future of universities (Mitrović et al., 2021; Ross, 2023; Staley, 2019).

Speculative design methods offer a means of “exploring and creating possible futures under conditions of complexity and uncertainty” (Ross, 2018, p. 197). These are not necessarily futures to strive towards but a diversity of possibilities for thinking about how things could be (Facer, 2016). While traditional design is about breaking down problems and solving them, speculative design feeds on imagination. It aims to open up new perspectives on what are sometimes called wicked problems (McCune et al., 2023) to create spaces for discussion and debate about alternative ways of being. Design speculation can act as a catalyst for collectively redefining our relationship to reality (Dunne & Raby, 2013, p. 2). We move away from the deterministic approaches of ed tech companies and forecasting reports to offer alternatives based

on the values and principles of the stakeholders in higher education. Particular attention is given to ensure a diversity of voices and critical discussions around these imagined futures are constitutive of the method. For a more detailed discussion of the epistemology of future education research, see Ross (2023) or Carbonel (2021).

Speculative methods do not claim to offer universally applicable outcomes, they may offer unrealistic, ideal, or dystopian designs. Moreover, the outcomes will depend on the participants and context. However, these visions can "offer new ways at looking at issues, and they can surface issues that may not be otherwise visible" (Ross, 2023, p. 183) and thus inform the decisions of teachers, programme directors, and institutions. Moreover, the process itself affects the participants and their future practices.

The speculative research method follows the four steps outlined in Ross (2023): a speculative question, an object-to-think-with, an audience to engage with, and a means to capture and analyse the design decisions and reactions to the object. An anonymised version of the work documents and collected data is available here: https://miro.com/app/board/uXjVMhQ9F6o=/

A speculative question: What might characterise quality remote assessments in a digital world?

An object to think with: Participants engaged in various ways with the question of remote assessments. On the first day, we worked on defining cheating and academic integrity. Then we used three scenarios to imagine ideal (or dystopian) assessments for the future, considering the points of view of an online student, a teaching team, and an ed tech-rich university. On day 2, participants developed remote assessment prototypes choosing one of three approaches: a traditional instructional alignment approach, a superhero design approach, and a speculative design approach. See the Miro board for a complete presentation of all the activities and prompts.

An audience to engage with: "What and whose knowledges are being used to create these ideas of the future and where are the absences" (2021, p. 19) affect the outcome of the work. Therefore, careful attention was paid to ensure a broad representation of all the stakeholders within higher education. However, this had to be balanced with keeping a group size that allowed for meaningful collaboration. The response to the invitations was unexpectedly positive, given the significant time commitment, leading to 35 confirmed participants and just one cancellation. Thirty-four academic community members (20 women, 14 men) engaged individually and asynchronously and then met on campus for a two-day workshop in spring 2023. The participants included ten higher education teachers, ten pedagogical specialists, six university managers, five distance university students, two university staff members (faculty managers), and one high school teacher. The institutions represented were the universities of Basel, Edinburgh, Lausanne, and Lund, Gymnasium am Münsterplatz (Basel), HES-SO Valais-Wallis, IDIAP, Open University (UK), TELUQ (Canada) and UniDistance Suisse. The fields covered included artificial intelligence, economics, education (including two assessment specialists and a researcher in speculative methods), history, languages, law, philosophy, physics, and psychology. Participants spoke English (the primary language of the workshop), French

and German. These were the official positions and affiliations of the participants, although most combined multiple hats. Voices from outside higher education (potential students, civil, political, and economic society members, etc.) were not represented and would probably have brought a different perspective. However, for the purposes of this work, it was necessary to focus on those with more direct and immediate experience of pedagogical assessment issues. Participants took part as researchers in the process and were offered the opportunity of being co-authors of the paper. The work was carried out in line with the Ethics Commission guidelines of UniDistance Suisse.

A means to capture and analyse the design decisions and responses to the object: the discussions and prototypes were recorded and collected on the Miro board. The analysis used Braun and Clarke's (2012) six-phase approach: becoming familiar with the data, generating initial codes, combining the codes in overarching themes, the coherence and accuracy of the themes relative to the data, a definition of each theme, and the final report. Following an independent analysis, the authors then shared their codes and, after a few iterations, agreed on the four overarching themes. The accuracy relative to the data was rechecked by the authors and through a peer review process with five participants (four teachers and one pedagogical specialist) from the workshop.

Results

The data analysis highlighted four overarching themes concerning the characteristics of quality remote assessments: ensuring authorship, designing meaningful assessments, fostering a feeling of autonomy, and reducing stress by fostering a feeling of competence and giving a space for failure. We describe the solutions and recommendations of the workshop participants for each issue. The findings are summarised in Table 1 below.

Table 1

Highlighted Characteristics of Remote Assessments

Designing assessments to …		Examples of features	Qualifications
ensure authorship		• Oral examinations, possibly as a follow-up to a written assignment • Observe or scaffold the learning process to follow the student's work and ensure authorship	The **process** is important for learning to happen, but should this process be graded?
Foster autonomous motivation	**be meaningful**	• A topic relevant to the student • Develop knowledge and skills students value • Real audience • Explain the rationale for the assignment	
	foster autonomy	• Offer choice(s): format, topic, approach, tools, or even the learning objectives. • Flexibility: just-in-time assessments; easy to request extensions • Discussion of rules for assessments: rational, but also choice (e.g., use LLMs or not)	Students need to take responsibility for these choices. Attention to the marking scheme so it works for the different options. **Need for structure.**

	reduce stress by fostering a feeling of competence	• Communicate expectations clearly
		• Feedback and feedforward so that students now where they stand and can improve their work. This may include automatic, group, individual and peer-feedback.
		• Scaffolding assignments
		• Technical preparation and support.
			• **A space to fail:**
			  • Continuous assessment rather than high stakes exams
			  • Kindness, generosity, and empathy
			• Not too many assessments to avoid overload and maintain flexibility.

Designing assessments to …		Examples of features	Qualifications
ensure authorship		• Oral examinations, possibly as a follow-up to a written assignment • Observe or scaffold the learning process to follow the student's work and ensure authorship	The **process** is important for learning to happen, but should this process be graded?
Foster autonomous motivation	**be meaningful**	• A topic relevant to the student • Develop knowledge and skills students value • Real audience • Explain the rationale for the assignment	
	foster autonomy	• Offer choice(s): format, topic, approach, tools, or even the learning objectives. • Flexibility: just-in-time assessments; easy to request extensions • Discussion of rules for assessments: rational, but also choice (e.g., use LLMs or not)	Students need to take responsibility for these choices. Attention to the marking scheme so it works for the different options. **Need for structure.**

	reduce stress by fostering a feeling of competence	• Communicate expectations clearly
		• Feedback and feedforward so that students now where they stand and can improve their work. This may include automatic, group, individual and peer-feedback.
		• Scaffolding assignments
		• Technical preparation and support.
			• **A space to fail:**
			  • Continuous assessment rather than high stakes exams
			  • Kindness, generosity, and empathy
			• Not too many assessments to avoid overload and maintain flexibility.

Ensuring Authorship

A primary concern of all participants was to ensure the validity of assessments in relation to authorship. Does the exam or assignment measure the knowledge and skills of a given student? Two main solutions were offered: oral exams and attention to process.

Oral exams give greater assurance that it is the student themselves that is being evaluated. Several teachers in the workshop had already switched to this format despite the time constraint with large cohorts. Examinations can be exclusively oral or a viva as a follow- up to a written assignment so as to include the development of writing skills and the deepening of understanding linked to writing.

The second suggestion was to pay attention to the process. For learning to happen, students need to engage deeply and persistently with the task. This process is absent when someone or something produces the output for you. Thus, focusing on the process becomes even more important when the output, e.g. an essay, can be generated reasonably well by a Large Language Model (LLM) within seconds. In the assessment prototype P1, for example, the teacher included a reflection by the students on their learning process, expectations, difficulties, and findings. Although LLMs can also produce convincing reflective writing, discussions throughout the research and writing process between teachers and students can help ensure the student is doing the work. Others suggested scaffolding a large assignment by breaking it down into smaller tasks throughout the semester. This helps teachers better know the students' work and ensure authorship. It also encourages regular work throughout the semester, which may be more difficult in online education settings when students have competing demands on their time, and education often comes after family and work obligations. Finally, a participant suggested that students hand in their written work with a full editing history (e.g. using Etherpad or Google Docs).

The question of authorship and academic integrity was hotly debated. What should students be able to do alone? When should tools be allowed or even become part of the learning objectives? The answers depend on the course, the learning objectives, the overall context, and the values and principles of the teacher.

Designing Meaningful Assessments

The essence of creating meaningful remote assessments was a dominant theme across most prototypes and suggestions. The terms meaningful or worthwhile assessment includes several key elements:

Relevance of Topics: Assignments that engage students are grounded in relevant topics. For instance, a task requiring students to research sustainable electricity consumption in Switzerland involves applying class concepts and using creativity in finding solutions.

Skill Development: Assessment tasks can be made meaningful if students see the skills they develop as useful, in particular for their future jobs. A human resource management task involved students analysing a company's HR policy and suggesting practical solutions. In a master's course in psychology, students created online experiments and then collected and analysed the resulting data. Meanwhile, higher education instructors in a digital course were asked to select platforms, share them via QR codes, and address privacy issues—a set of tasks of immediate applicability in their roles as teachers.

Engaging Real Audiences: Genuine engagement increases the authenticity of a task. Suggestions included discussing a topic with family members, addressing real-world stakeholders, or sharing insights with peers.

Explaining the Rationale: In all cases, explaining the rationale of an assignment emerged as central. This is especially true for tasks with little intrinsic interest, such as content that requires memorisation. For instance, one teacher shared with their first-year

students the feedback from the third-year students on the relevance of memorising the basic facts of psychology early on.

The arrival of AI in academic and professional realms is reshaping the landscape of what needs to be taught and learned. While some argued for more content learning due to the ever-increasing amount of knowledge available, others focused on lifelong learning or critical analysis. There is ongoing uncertainty about what might be delegated to AI versus what students should personally master. Moreover, it raised the question of whether higher education should assess foundational knowledge (as per Bloom's taxonomy) or focus on advanced skills like analysis and creation. There is no one-size-fits-all answer. Therefore, educators must articulate their rationale transparently to gain student buy-in and inspire genuine engagement.

In summary, designing meaningful assessments means aligning them with worthwhile topics and competencies, engaging real audiences, and explaining their relevance. Even when a task lacks intrinsic appeal, a clear explanation of its purpose can foster student engagement. Moreover, with AI redefining the workspace, educators must continuously reassess what is taught and evaluated to maintain relevance.

Fostering a Feeling of Autonomy

The notion of autonomy—encompassing initiative and ownership of one's studies—was a significant focal point, articulated through three interlinked themes: choice, flexibility, and discussions around academic integrity.

Choice in Assessments

Participants underlined the importance of incorporating elements of choice. This could range from the choice of format (be it an essay, video, or platform, for example) to the topic (within the confines of the module), the approach, the tools employed, and even the specific learning objectives of the module. For instance, in prototype P1, students were tasked to select their audience and platform and explain the rationale behind these choices. "Any means of communication is fine: written, filmed, recorded, oral, drawing comics, object + explanation, metaphor, art piece…" In this same group, participants also highlighted that choice had to go with responsibility, and students should be able to justify them.

Flexibility in Learning

Intertwined with choice, flexibility is especially crucial for distance learners, who often juggle multiple responsibilities. A novel proposal was the concept of "just-in-time assessments," allowing students to take exams when they feel prepared. This offers students the autonomy to manage their study schedule based on other commitments. This idea extends to a more adaptable course structure, where modules are not bound by semesters but are instead paced according to students' needs. However, participants rapidly mentioned the potential pitfalls of this approach. Synchronous class sessions risk losing their meaning, academic interactions and support may become challenging when students are at varied stages, and the sense of belonging to a cohort—with the resilience it offers—might disappear.

Autonomy in Relation to the Context of Assessment

An enhanced understanding of, and involvement in, academic rules can foster greater autonomy. Participants suggested that if students not only grasp the rationale behind specific rules but also take part in shaping them, it could engender a sense of ownership. One group defined cheating as "breaking the contract which students and teachers agreed on." This implies that teachers and students have discussed and agreed on the rules. One idea posited that students might choose whether or not to utilise Large Language Models (LLMs) for a given task, contingent on their learning outcomes. They would then declare their choice, and evaluation criteria would be adjusted accordingly.

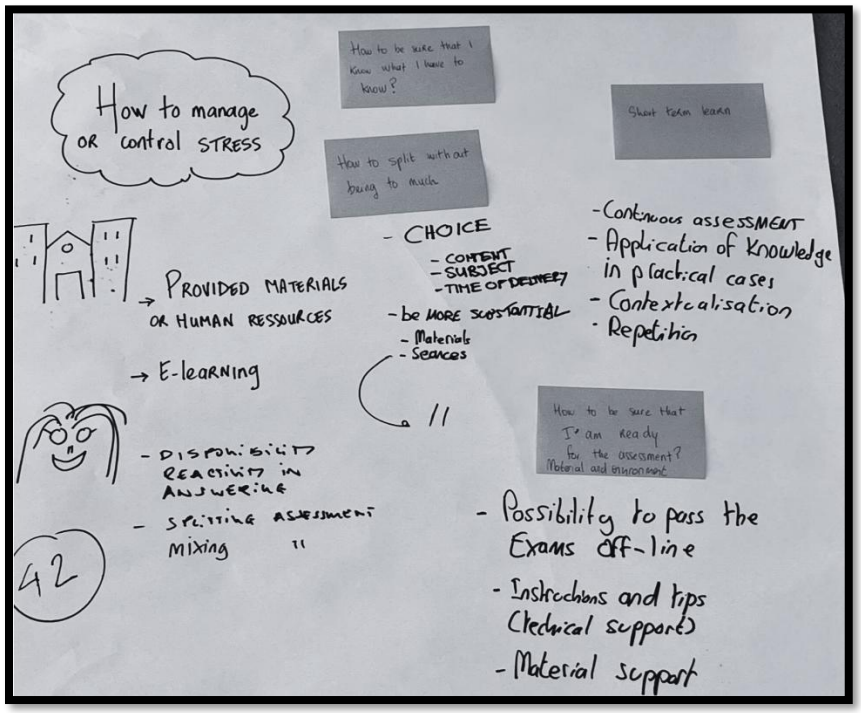
In summary, multiple approaches can be employed to grant students autonomy in assessments. While autonomy is pivotal, students must also show responsibility for their choices and be given ample support.

Reducing Stress by Fostering A Feeling of Competence and Giving a Space for Failure

During the activity on developing assessment prototypes, all five students selected the Superhero design group (they were spread across different groups for all other activities). Their conversation centred on stress during assessment, as depicted in Figure 1. The students clearly associated assessments with heightened stress and focused on ways of mitigating it. They emphasised the importance of thorough academic and technical preparedness, as well as the necessity of allowing room for mistakes. Some teachers had a more nuanced perspective on stress during exams, considering it was sometimes necessary to be able to perform under pressure. Participants noted that this should then be an explicit learning objective, with some questioning the equivalence of stress during exams and in a work environment.

Figure 1

How to Manage or Control Stress



Both students and teachers underscored the role of timely and relevant feedforward and feedback. The superhero design poster prominently featured phrases like “regular feedback.” “super-speed learning platform,” and “formative evaluations.” Through such feedback mechanisms, students can ascertain their current standing, identify areas of strength, recognise what requires further effort, and find paths to improve. Students felt that feedforward could enhance learning and alleviate stress. Participants also emphasized the importance of transparent criteria. In the discussions involving the high-tech university scenario, participants suggested using AI for personalised assessment, which could help students evaluate their progress and access tailored recommendations based on learning analytics—available “24/7.” Peer feedback was recognised as valuable, teaching students to evaluate other student’s work and better evaluate their own in the future. However, experience showed that its effectiveness depends on careful attention to the process and teacher support. The challenge of providing individualised support to large student groups emerged as a significant impediment to quality assessment. Some educators prioritised feedforward during the semester and just a grade for the final exam. Ideally, a teacher’s cohort would comprise 10 to 20 students. However, some suggested AIs could generate personalised feedback in the future.

The group using speculative design methods to develop prototypes also noted the “need to build the approaches to learning and working that are necessary (we don’t assume students are all ready and willing to work in these open-ended ways).” Scaffolding learning activities can help build a feeling of competence. “Splitting” assessments was suggested, although too many assessments could also become an issue. The previously mentioned just-in-time assessments also

allow students to take the exams only when they feel ready. Being well-prepared also pertains to technology, especially in remote learning environments. Students voiced the necessity for tech support, clear guidelines, advice, and hardware provisions. One student suggested the possibility of offline examinations.

Despite students seeking a sense of "comfort and security," learning inevitably encompasses elements of "ambivalence, risk-taking, and discomfort." Opinions diverged on addressing failure—some advocated for "no learner left behind," while others believed in limited timeframes for success. Grading approaches varied, including standard or criterion-referenced grading but also norm-referenced strategies. Participants suggested continuous assessment (rather than a single time-limited table examination at the end of a module), multiple low-stakes (or no stakes) assignments or dropping the lowest grade(s). The module's atmosphere was also considered important in supporting risk-taking: "acknowledging how students feel and finding ways to reassure." Fostering competence while accommodating failure is paramount to learning, posing a challenging equilibrium for teachers.

Our results focus on four broad areas of intervention to design quality remote assessments. The first focuses on control, ensuring authorship of the work while supporting learning as teachers pay attention to the process. The three other areas, meaningful assessments, a sense of autonomy, and reducing stress through a feeling of competence, are all closely related to motivation and SDT. These are obviously not the only elements of quality assessment but part of a holistic approach. Moreover, discussions highlighted the importance of balancing these needs with other aspects, such as the need for structure, responsibility, and space for failure. In the following section, we discuss the role of motivation in assessment and the conceptual framework self-determination theory can offer when designing assessments.

Discussion and Conclusion

Traditionally, assessment design focuses on the issues of validity, reliability, and fairness (Forsyth, 2022). These characteristics were mentioned in the workshop and remain relevant. However, participants also highlighted the importance of meaning, autonomy, and competence in assessment design. These can help reinforce validity and fairness. Ensuring reliability may become more challenging, but fruitful approaches could include aiming for an expert agreement through moderation when evaluating non-similar assignments, or rethinking evaluative criteria in relation to trustworthiness, as in Lincoln and Guba's (1985) work on evaluating qualitative research. In the following discussion, we show how meaning, autonomy, and competence relate to SDT and autonomous motivation. We shed light on the lack of attention to the third psychological need, relatedness. We then qualify these needs that must be balanced with structure and space for failure in the case of higher education. Finally, we mention the effect on the actors of the current research.

In the educational sciences literature on assessment, there is little explicit attention on creating assignments that foster motivation. External loci of motivation through rewards (grades or self-esteem) or punishment (failing a course, anxiety or shame) have long been considered the main source of motivation to complete an assignment, based on behaviourism (Skinner, 1965) and social exchange theory (Emerson, 1976). Our results show a shift from focusing on

controlled extrinsic motivation to fostering autonomous motivation. The participants' suggestions, such as giving choices, discussing the relevance of a task, and ensuring flexibility, increase the student's feeling of autonomy. In the same way, the actions suggested to reduce stress, such as providing clear information, giving feedback, scaffolding tasks, and ensuring technological readiness, support a feeling of competence in students. As described in the theory section, supporting autonomy and competence increases autonomous motivation. It thus can lead to greater interest, engagement, resilience and finally to higher performance, in particular for higher-level cognitive tasks. Autonomous motivation is not only related to meaningful tasks but can also be induced for uninteresting ones if students understand the importance of the activity (Deci et al., 1994). Moreover, Kanat-Maymon et al. (2015) have shown that greater autonomous motivation leads to less cheating both in experimental and real-life contexts. Park (2020) also showed that students cheated less when intrinsic goals were met. Finally, Sutherland-Smith and Dawson (2022) argue that when students are asked to do meaningful assignments and are supported by teachers through feedback and thus interested and motivated to do the work themselves, they are less likely to cheat. Therefore, the recommendations highlighted during the workshop support two of the psychological needs of SDT, leading to greater autonomous motivation and, thus, better learning performance and less cheating.

The third psychological need of SDT is relatedness and belonging. However, the focus so far has been on the individual student working alone. Learning is a social activity; knowledge is constructed in a specific socio-material context (Kuhn, 1962/2012) and social interactions with teachers and peers help support long-term engagement and resilience. Garrison et al. (1999) and the subsequent research (Garrison et al., 2010) on the community of inquiry framework highlight the importance of both social and teacher presence in distance teaching and learning. Moreover, Ryan and Deci (2000) underlined that encouraging a feeling of relatedness helps students deal better with failure. Finally, if we are preparing students to become active citizens and workers, collaboration and communication are fundamental skills. We expect professionals to discuss their work with others, use resources, get feedback, and incorporate all these into their final work. This should also be valued in higher education learning outcomes (Boud & Bearman, 2022).

Although a caring atmosphere was considered important ("kindness, generosity, and empathy") by the workshop participants, relatedness and belonging were less explicitly present in the workshop discussions. Exams were often expected to measure the knowledge and skills of an individual student working alone. Further research on the role of relatedness and belonging and how it affects motivation, engagement, and learning outcomes, in the context of remote exams would be useful. A fifth row on supporting relatedness could then be added to Table 1.

The characteristics of quality remote assessments highlighted in the workshop are thus supported empirically and theoretically by SDT and foster deeper learning and greater academic integrity. However, participants also noted important factors for remote assessments that may thwart the basic psychological needs: the need for structure and a space to fail.

A sense of autonomy must be balanced with structure, particularly in distance learning. Ryan and Deci (2020) highlight the need for structure, as distinguished from control: "Whereas controlling behaviours pressure students to behave or achieve, structure entails setting clear

expectations and goals, having consistent rules and guidelines, and providing informational support for engagement and rich efficacy feedback." (p.4) These align with the workshop's recommendations. However, teachers also emphasised the role of deadlines, which have been shown to negatively affect performance and interest in the task (Amabile et al., 1976). The debate was left open during the workshop with the idea that deadlines help students stay on track with their studies within a busy schedule vs. "just-in-time exams," taken when a student felt ready, even if they did not fit within the semester timetable. The balance between autonomy and structure in remote assessment in higher education depends on the context. However, a better understanding of how guidelines and structure affect motivation in distance learning would be beneficial.

The second discussion point is the balance between the need for a sense of competence and that of a space for failure. SDT research emphasises the importance of positive feedback and suggests, for example, "[s]tructuring tasks for small but consistent wins" (Sutherland-Smith & Dawson, 2022, p. 97). However, failure, and not only minor mistakes, is integral to a deep learning process and positive feedback does not always support the learning process (Juul, 2013; Kapur & Bielaczyc, 2012; Pépin, 2018). How can teachers support both a sense of competence and leave space for failure? Some ideas included creating an atmosphere of support and trust or explaining the purpose of failure (Kapur & Bielaczyc, 2012). A related concept is psychological safety, which was extensively investigated in occupational research focusing on learning in work teams (Frazier et al., 2017; Newman et al., 2017). Newman et al. (2017) named it a "key cognitive state that allows learning processes to occur"(p. 532), and the meta-analysis by Frazier et al. (2017) found a clear association between psychological safety and learning behaviour. In a psychologically safe environment or team, people are not afraid to voice their opinions, take risks, make mistakes, ask for help, and give feedback (Edmondson, 1999; Turner & Harder, 2018). Fostering a psychologically safe environment in the (virtual) classroom, even within an assessment setting, could thus be a good path towards more space for failure.

Finally, in the methods section, we mentioned that one of the purposes of speculative approaches was that it affected the actors, leaving no one unchanged. As participants shared their prototypes at the end of the workshop, most mentioned changes they had made to their assessment forms, sometimes at the margin, sometimes more fundamentally. The day after the workshop, one participant wrote,

> I came away with ideas for my teaching practice, and the cross-fertilisation of views really helped me to step back and look at my own practice, without losing sight of my ultimate objectives. Already yesterday, I spent the whole evening working on my planning for next year using the elements that this seminar has given me. I did the same thing this evening.

In conclusion, although the speculative design approach does not offer a universal solution or measurable best practices, it opens up the field of possibilities, illustrates the complexity of remote assessment and offers avenues for reflection. Ensuring authorship and fostering autonomous motivation were seen as central to creating quality remote assessments by the participants in the speculative design workshop. By fostering autonomy, meaning and a

feeling of competence, teachers can support greater engagement and help reduce the risk of cheating. These factors also help support both validity and fairness of assessments.

Much work remains to be done, including measuring the impact of autonomous motivation in assessment on engagement and skills development, defining the meaning of cheating in a digital world, the question of consistency and evaluative criteria when representing knowledge in different ways, or the relative weights of agency, competence and belonging in relation to assessment.

Acknowledgments
We wish to thank all the participants who dedicated their time and effort for this study: Alessandro Dall'Aqua, Alice Thurre, Ambroise Baillifard, Caroline Boilard, Cedric Bösch, Cindy Zen-Ruffinen, Corinna Martarelli, Cosette Josseron, Damien Carron, Joel Piffaretti, Klaus-Dieter Rossade, Lucie Rochat, Manuel Grieder, Marc-André Carle, Marco Valentino, Marta Dados-Ribeiro, Matthias Kubat, Maud Aspart, Mélanie Bonvin, Morgane Gay-Bianco, Natalie Sarrasin, Nicole Prince, Pamela Banta Lavenex, Patricia Heckendorn-Kenzelmann, Petra Köhler, Rachel Forsyth, Tanguy Darbellay, Tara Balet, and Thomas Reber. Without their engagement, this research would not have been possible.

The project was funded by the Fonds de recherche, de développement et de coopération of UniDistance Suisse and was carried out in line with the Unidistance Ethics Commission principles.

There are no conflicts of interest.

References

Amabile, T. M., DeJong, W., & Lepper, M. R. (1976). Effects of externally imposed deadlines on subsequent intrinsic motivation. *Journal of Personality and Social Psychology*, *34*(1), 92–98. https://doi.org/10.1037/0022-3514.34.1.92

Audrin, C., & Coppin, G. (2022). Interest and confusion: Contrasting theoretical approaches. *Swiss Psychology Open*, *2*(1), 5. https://doi.org/10.5334/spo.35

Baillifard, A., & Martarelli, C. S. (2023). Notes et taux de décrochage inébranlables durant la Covid-19 en enseignement universitaire à distance: *Savoirs*, *N° 60*(3), 13–30. https://doi.org/10.3917/savo.060.0013

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., Bosch, J. A., & Thøgersen-Ntoumani, C. (2011). Self-determination theory and diminished functioning: the role of interpersonal control and psychological need thwarting. *Personality and Social Psychology Bulletin*, *37*(11), 1459–1473. https://doi.org/10.1177/0146167211413125

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., & Thøgersen-Ntoumani, C. (2011). Psychological need thwarting in the sport context: Assessing the darker side of athletic experience. *Journal of Sport and Exercise Psychology*, *33*(1), 75–102. https://doi.org/10.1123/jsep.33.1.75

Bayne, S., Evans, P., Ewins, R., Knox, J., Lamb, J., Macleod, H., O'Shea, C., Ross, J., Sheail, P., & Sinclair, C. (2020). *The manifesto for teaching online*. The MIT Press.

Bearman, M., Dawson, P., & Tai, J. (2020). Digitally mediated assessment in higher education: Ethical and social impacts. In M. Bearman, P. Dawson, R. Ajjawi, J. Tai, & D. Boud (Eds.), *Re-imagining university assessment in a digital world* (pp. 23–36). Springer International Publishing. https://doi.org/10.1007/978-3-030-41956-1_3

Bergmans, L., Bouali, N., Luttikhuis, M., & Rensink, A. (2021). On the efficacy of online proctoring using Proctorio: *Proceedings of the 13th International Conference on Computer Supported Education*, 279–290. https://doi.org/10.5220/0010399602790290

Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, *57*(1), 1–22. http://dx.doi.org.ezproxy.is.ed.ac.uk/10.1111/j.1741-5446.2006.00241.x

Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, *22*(2), 151–167. https://doi.org/10.1080/713695728

Boud, D., & Bearman, M. (2022). The assessment challenge of social and collaborative learning in higher education. *Educational Philosophy and Theory*, 1–10. https://doi.org/10.1080/00131857.2022.2114346

Boud, D., & Falchikov, N. (2007). *Rethinking assessment in higher education: Learning for the longer term*. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/ed/detail.action?docID=292915

Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & van Haeringen, K. (2019). Contract cheating: A survey of Australian university students. *Studies in Higher Education*, *44*(11), 1837–1856. https://doi.org/10.1080/03075079.2018.1462788

Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., van Haeringen, K., Saddiqui, S., & Rozenberg, P. (2019). Contract cheating and assessment design: Exploring the relationship. *Assessment & Evaluation in Higher Education*, *44*(5), 676–691. https://doi.org/10.1080/02602938.2018.1527892

Bulletin Officiel. (2018). *Utilisation des calculatrices électroniques aux examens et concours de l'enseignement scolaire, au diplôme de comptabilité et gestion (DCG), au diplôme supérieur de comptabilité et de gestion (DSCG), au diplôme d'expertise comptable (DEC) et au brevet de technicien supérieur (BTS), à compter de la session 2018*. https://www.education.gouv.fr/bo/15/Hebdo42/MENS1523092C.htm

Carless, D. (2009). Trust, distrust and their impact on assessment reform. *Assessment & Evaluation in Higher Education*, *34*(1), 79–89. https://doi.org/10.1080/02602930801895786

Carr, D. (1992). Practical enquiry, values and the problem of educational theory. *Oxford Review of Education*, *18*(3), 241–251.

Carter, C. B., & Blanford, C. F. (2016). Plagiarism and detection. *Journal of Materials Science*, *51*(15), 7047–7048. https://doi.org/10.1007/s10853-016-0004-7

Cassidy, C. (2023, January 10). Australian universities to return to "pen and paper" exams after students caught using AI to write essays. *The Guardian*. https://www.theguardian.com/australia-news/2023/jan/10/universities-to-return-to-pen-and-paper-exams-after-students-caught-using-ai-to-write-essays

Cross, S., Aristeidou, M., Rossade, K.-D., Wood, C., & Brasher, A. (2023). The impact of online exams on the quality of distance learners' exam and exam revision experience: Perspectives from The Open University UK. *Online Learning*, *27*(2), Article 2. https://doi.org/10.24059/olj.v27i2.3761

Dawson, P. (2020). Cognitive offloading and assessment. In M. Bearman, P. Dawson, R. Ajjawi, J. Tai, & D. Boud (Eds.), *Re-imagining university assessment in a digital world* (pp. 37–48). Springer International Publishing. https://doi.org/10.1007/978-3-030-41956-1_4

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, *62*(1), 119–142. https://doi.org/10.1111/j.1467-6494.1994.tb00797.x

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, *125*(6), 627–668. https://doi.org/10.1037/0033-2909.125.6.627

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology / Psychologie Canadienne*, *49*(3), 182–185. https://doi.org/10.1037/a0012801

Edmondson, A. (1999). Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly*, *44*(2), 350–383. https://doi.org/10.2307/2666999

Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, *2*(1), 335–362. https://doi.org/10.1146/annurev.so.02.080176.002003

Forsyth, R. (2022). *Confident assessment in higher education* (1st ed). Sage Publications.

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. *Personnel Psychology*, *70*(1), 113–165. https://doi.org/10.1111/peps.12183

Gallant, T. B. (2022). *The ICAI Reader (2nd ed):* 44.

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: computer conferencing in higher education. *The Internet and Higher Education*, *2*(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education*, *13*(1), 5–9. https://doi.org/10.1016/j.iheduc.2009.10.003

Gough, N. (2013). Towards deconstructive nonalignment: A complexivist view of curriculum, teaching and learning. *South African Journal of Higher Education*, *27*(5), 1213–1233.

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology*, *52*(5), 890–898. https://doi.org/10.1037/0022-3514.52.5.890

Hartnett, M., St. George, A., & Dron, J. (2011). Examining motivation in online distance learning environments: Complex, multifaceted and situation-dependent. *The International Review of Research in Open and Distributed Learning*, *12*(6), 20. https://doi.org/10.19173/irrodl.v12i6.1030

Ibarra-Sáiz, M. S., Rodríguez-Gómez, G., & Boud, D. (2021). The quality of assessment tasks as a determinant of learning. *Assessment & Evaluation in Higher Education*, *46*(6), 943–955. https://doi.org/10.1080/02602938.2020.1828268

Jantos, A. (2021). *Motives for Cheating in Summative E-Assessment in Higher Education—A Quantitative Analysis*. https://doi.org/10.21125/edulearn.2021.1764

Juul, J. (2013). *The art of failure: An essay on the pain of playing video games*. MIT Press.

Kanat-Maymon, Y., Benjamin, M., Stavsky, A., Shoshani, A., & Roth, G. (2015). The role of basic need fulfillment in academic dishonesty: A self-determination theory perspective. *Contemporary Educational Psychology*, *43*, 1–9. https://doi.org/10.1016/j.cedpsych.2015.08.002

Kapur, M., & Bielaczyc, K. (2012). Designing for productive failure. *Journal of the Learning Sciences*, *21*(1), 45–83. https://doi.org/10.1080/10508406.2011.591717

Kirchner, J. H., Ahmad, L., Aaronson, S., & Leike, J. (2023). *New AI classifier for indicating AI-written text*. https://openai.com/blog/new-ai-classifier-for-indicating-ai-written-text

Kuhn, T. S. (2012). *The structure of scientific revolutions* (Fourth edition). The University of Chicago Press. (Original work published 1962)

Lee, K., & Fanguy, M. (2022). Online exam proctoring technologies: Educational innovation or deterioration? *British Journal of Educational Technology*, *n/a*(n/a). https://doi.org/10.1111/bjet.13182

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.

Maehr, M. L., & Meyer, H. A. (1997). Understanding motivation and schooling: Where we've been, where we are, and where we need to go. *Educational Psychology Review*, *9*(4).

Media Officer. (2022). *Essay mills are now illegal—Skills Minister calls on internet service platforms to crack down on advertising—The Education Hub*. https://educationhub.blog.gov.uk/2022/04/28/essay-mills-are-now-illegal-skills-minister-calls-on-internet-service-providers-to-crack-down-on-advertising/

Morin, E. (2014). *Introduction à la pensée complexe*. Éd. Points.

Morin, E. (2015). *Les sept savoirs nécessaires à l'éducation du futur*.

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, *27*(3), 521–535. https://doi.org/10.1016/j.hrmr.2017.01.001

Newton, P. M. (2018). How common is commercial contract cheating in higher education and is it increasing? A systematic review. *Frontiers in Education*, *3*. https://www.frontiersin.org/articles/10.3389/feduc.2018.00067

Park, S. (2020). Goal contents as predictors of academic cheating in college students. *Ethics & Behavior*, *30*(8), 628–639. https://doi.org/10.1080/10508422.2019.1668275

Pépin, C. (2018). *Les vertus de l'échec*. Pocket.

Ross, J. (2023). *Digital futures for learning: Speculative methods and pedagogies*. Routledge.

Ross, J., & Macleod, H. (2018). Surveillance, (dis)trust and teaching with plagiarism detection technology. *Networked Learning*, 8.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, *61*. https://doi.org/10.1016/j.cedpsych.2020.101860

Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, *65*(3), 529–565. https://doi.org/10.1111/j.1467-6494.1997.tb00326.x

Skinner, B. F. (1965). *Science and human behavior* (First Free Press Paperback edition). The Free Press.

Sutherland-Smith, W., & Dawson, P. (2022). Higher education assessment design. In S. E. Eaton, G. J. Curtis, B. M. Stoesz, J. Clare, K. Rundle, & J. Seeland (Eds.), *Contract Cheating in Higher Education: Global Perspectives on Theory, Practice, and Policy* (pp. 91–105). Springer International Publishing. https://doi.org/10.1007/978-3-031-12680-2_7

Townley, C., & Parsell, M. (2004). Technology and academic virtue: Student plagiarism through the looking glass. *Ethics and Information Technology*, *6*(4), 271–277. https://doi.org/10.1007/s10676-005-5606-8

Turner, S., & Harder, N. (2018). Psychological safe environment: A concept analysis. *Clinical Simulation in Nursing*, *18*, 47–55. https://doi.org/10.1016/j.ecns.2018.02.004