

The ultimate guide for everyone who wants to learn more about why and how to implement online assessment Copyright 2020 Inspera Edited by Julie Lykke Storm All rights reserved

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Introduction

Or: Why online assessment is crucial to modern education and what you can learn about it in this guide.

Welcome! We are happy that you have decided to download this eBook. That means that you have already taken your first step on the road to digital assessment. The eBook has been written for those of you who are ready to start an exciting journey to transform your understanding and approach to assessment practice.

But, let us start from the very beginning. What is digital or online assessment (also known as e-assessment)? Within educational working area, we can use the following definition:

'Digital assessment refers to the application of digital technologies to create, administer, report and manage tests and examinations.' Gartner, 2016

Online learning and online assessment go hand in hand since both of the practices play important roles in growing areas such as adaptive learning, analytics and personalised education.

Why online assessment?

The development and adoption of digital technologies, as well as the accelerating shift to digital workflows and information handling, means that using digital tools for assessment is a natural extension of this wider shift in practice. There is also an added impetus due to requirements from students who are unaccustomed to extended periods of writing with pen and paper and find it difficult to demonstrate the full extent of their capabilities.

Digital assessment is a way of offering learners a more authentic assessment experience. Authentic assessment is a set of methods and techniques for assessing the academic achievements of a student that includes activities requiring the application of knowledge and skills to real-world situations. Higher education institutions must aspire to bridge the gap between 'digital' at work and on campus, and online assessments are an important step in that direction.

It's also true that online assessment speeds up the effectiveness of the whole assessment process. The administrative burden is heavily reduced, and the time and money saved can be used for the staff to focus on their core academic tasks. In the end, moving assessment online allows you to gain higher quality with fewer resources.

Online assessment is here to stay. Technology is pervasive in modern-day society, and educational institutions need to digitally transform themselves to adapt and provide services that are fit for the future.

Who is this eBook for?

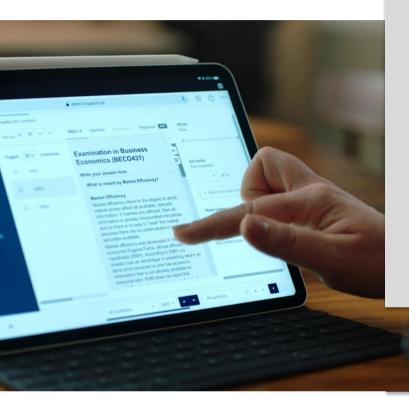
Since you have downloaded this eBook, it probably is for you. We have written this eBook because we want to give a broad introduction to digital assessment. You are most likely working within the educational sector, and you could be a vice-chancellor, learning technologist, administrator. Whatever position you hold, we are happy to have you on board.

What will you learn from the eBook?

Within each chapter of the eBook, there are cases that show how institutions, like your own, have handled questions or tasks related to the transition to online assessment. You will also be asked to engage in a range of activities that can help shed light on your current readiness and your institution's challenges and expectations.



Once you have completed this eBook, you can:



- Understand what online an assessment platform is and why you should offer it to your learners
- Define and plan a successful digital assessment pilot
- Establish the right project team
- Ensure anchoring and buy-in from your stakeholders with well-planned change management
- Handle the practicalities and questions related to the implementation of an assessment platform

We recommend that you read the guide cover to (digital) cover. However, this eBook is designed to be used as a manual or a reference work, where you can quickly get an overview of specific areas, steps or tools connected with the road to digital assessment.

Light up the exam halls

Or: Why we did well with fire, but are definitely doing better with electricity.

When Edison and his team of researchers succeeded in developing a practical and inexpensive light bulb, they changed the modern world. Still, Edison's invention was met with scorn. A British parliamentary committee concluded in 1878 that the light bulb was 'good enough for our transatlantic friends ... but unworthy of the attention of practical or scientific men', while scientist Henry Morton called the invention, in short, 'a conspicuous failure'.

Of course, we now find it amusing that the brightest brains of the time literally couldn't see the light, but how can we benefit from the rejection of Edison's light bulb in a broader sense besides the anecdotal value? It is a narrative about an incredible and world-changing scientifical achievement, but it is also a story about change. For hundreds, even thousands, of years, civilisations had depended on fire as the source of light. Perhaps it is not so strange that Edison's invention must have seemed ridiculous, uncanny, or even unsafe at the time.

The hardest things to change are those that we are the most dependant on. Like the use of fire. Or pen and paper. Scholars have used traditional writing tools for centuries, and as long as you don't run out of ink, it is fair to say that a pen is a pretty reliable tool for non-verbal communication. In a time of digitalisation, many operations have obviously already moved online, but testing and assessment have generally not.

What is an assessment platform?

So, what is it we should dump the pen and paper in favour of? Put simply, an assessment platform supports your organisations' entire examination cycle on-screen. It enables you to streamline every part of the exam process while providing a fulfilling learning and assessment experience to your test-takers. An assessment platform affects every learner and staff member involved.



Benefits for students:

- High professional relevance
- Accessibility
- Up-to-date with students' requirements and habits derived from their everyday use of technology

Benefits for the organisation:

- Cost-effective operation
- Empowering students to perform at their best
- Achieving higher staff and student satisfaction
- A positive environmental impact

Benefits for administrative staff:

- Monitoring of the entire exam lifecycle from one place, even paper-based exams
- Security of exam delivery
- Archiving and reporting on bachelor and master theses
- Distribution of complete tests easily across the entire organisation

Benefits for academic staff:

- Simplification of grading tools: auto-marking, readability of submissions, and flexible marking
- Support specialised needs in assessment, such as maths and drawing
- Mitigate plagiarism risks
- Opportunity to do marking and write feedback on-screen and remotely

Digital assessment is not just about getting rid of pen, paper, and handwriting. Digital assessment is the bridge between school, work, and active citizenship. It secures alignment between the tools used in everyday teaching and evaluations, and those test-takers will be using in their professional life.

On a more practical level, an assessment platform covers the following areas:

- 1. Plan and schedule assessments
- 2. Design exam paper, author and bank items, enable aids and access arrangements
- 3. Deliver online and offline tests and monitor test-takers during the exam
- 4. Mark and produce feedback
- **5.** Share results and feedback



Another important aspect of online assessment is the built-in continuous improvement of the assessment practice. When we conduct assessments, we obtain statistical and behavioural data. And, from this information, we can learn as much about learners' mastery of a subject as about the quality of the assessment and of the questions that we use. When we use this data in a smart way, we can become better question and test writers, speed up our learners' path to mastery, and improve the validity of our results.

Why do we need yet another tool?

Understandably, stakeholders in educational institutions would like to have everything that has to do with assessment in one place. Many universities and schools have already adopted a Learning Management System (LMS) or a Virtual Learning Environment (VLE). They ask themselves: with a bit of customisation and a lock-down browser, why can't we just do digital exams in our LMS/VLE?

The short answer is: different platforms are built with different purposes, and therefore have different strengths. VLE/LMS platforms are great for online training, communication between students and teachers, distribution of content and collaboration during the course. An assessment platform, like Inspera Assessment, provides that functionality as well, but it is furthermore specifically designed to support all processes and tasks related to assessment securely. While learning and assessment are tightly connected, the requirements to the platforms that support them are not the same.

VLE/LMS platforms are widely used to effectively give students open access to information, online learning, and resources connected with their studies. For such purposes, a VLE/LMS solution is often a good choice for a consistent interface within the institution. For assessment purposes, a cloud-based assessment platform can more effectively support your organisations' entire examination cycles on-screen. The strengths of the different solutions are outlined below:

Assessment platform

Best used for:

- Formative assessment
- Summative assessment
- Open and closed-book exams
- Bring Your Own Device (BYOD) exams, at-home testing, and on-site exams

Functionalities include:

- Plan and schedule assessments
- Design exam paper, author and bank items, enable aids and access arrangements
- Deliver online and offline tests
- Detect cheating and protect the exam integrity with plagiarism control and online proctoring
- Mark and produce feedback
- Collaboration with other colleagues
- Share results and feedback
- Automatically display statistics on test-takers and grades
- Give test-takers a fair and unbiased evaluation

VLE/LMS

Best used for:

- **Ouizzes** and tests
- Formative assessment
- Peer review

Functionalities include:

- Publish learning resources
- Curriculum mapping and planning
- Collaboration and communication during courses
- Wikis and blogs
- Tracking of learner activity and progress
- The course syllabus
- Administrative information about the ongoing course
- Links to outside sources
- Interactive online whiteboard for live virtual classes

Streamline every part of the exam process

An assessment platform supports the entire examination process for all academic and administrative users: from planning and design to delivery, marking, and finally, sharing of results and improvement. The platform contributes to an organisationally led rather than individually led digital transformation, which provides complete and reliable results in the long term.

Learning analytics give insights not only on the student performance but the exam performance as well as the question performance. Such material for reflection and improvement bridges the gap between summative and formative assessment and allows

for a greater pedagogical impact of digital exams. These are some of the reasons why you need a dedicated assessment tool.



Identify the stakeholders that will be affected by your digital assessment project. Please note that, depending on your organisation, you may have as few as ten or fifteen stakeholders or as many as thirty or forty.

In the box below, summarise the five most important stakeholders that you need buy-in

- 1.
- 2.
- 3.
- 4.
- 5.

CASE: The University of Bath invested in planning and

The University of Bath conducted a one-year digital assessment pilot in 2019. The University's planning and development phase required efforts in communication, coordination, and stakeholder management.

We recognised the importance of planning and development prior to the trial going live, and we needed to secure buy-in from all stakeholders. People are not necessarily willing to try something new before they see that it works, and therefore some time investment is needed in communications in the beginning', Rowan Cranwell, Solutions and Projects Manager, explains.

In addition to students, in total, 36 stakeholders were identified across Computing Services (Networks, Security, Applications, Procurement); Registry & Exams Office; Faculties (Academic and Professional Services) Students' Union and CTL.

Mind the gap

Or: How online assessment is bridging the digital divide and why you should offer it to your learners.

In line with the story about Edison's light bulb, we need to ask ourselves why we still want students to write their exams by hand when it is an inescapable fact that modern work-life is digital? Today's students are digital natives, and online assessment bridges the gap between their digital use at home, at work, and on campus, and it provides a more authentic way to conduct assessments.

Technology is pervasive in modern-day society. According to PwC, the discrepancy between the skills people have and those needed for jobs in the digital world is one of the most critical problems of our time. Upskilling, which means to bridge the digital divide, is a way of tackling this issue. Digital assessment is part of the digital offers which modern institutions should provide for their learners, and thereby prepare them for a professional life that will inevitably be digital.



How the coronavirus pandemic accelerates the digital transformation

The outbreak of COVID-19 has forced a change in the way educational institutions can teach and assess their learners. Institutions around the world have to adapt the way they work to support remote learning and home exams. It could be said that the coronavirus crisis is, in fact, providing the rocket fuel for the digital transformation in education.

An **analysis carried out by UNCTAD** under the United Nations shows that the coronavirus has accelerated the transition towards a digital economy on a global scale. Organisations and companies alike are adopting digital solutions, tools, and services at a higher pace than ever before. The report also reveals the wide chasm between those who are online and connected and those who are not. Like PwC, the UN points out the inequalities related to the difference of digital readiness.

Online education is one of the areas that has proliferated during the COVID-19. UNESCO reports that **91% of the world's student population** has been affected by the closure of educational institutions, which has resulted in a massive move of teaching and testing online.

Despite the grave background, the rapid changes forced by the coronavirus could eventually be a springboard for a much more flexible and accessible assessment practise in the future. At Inspera, we have been preparing for a "new normal". We have embraced a remote-first design principle – not only to address the current situation but also to cater for more flexibility in assessments going forward.

The changes in our digital behaviour are, at least to some extent, likely to become permanent when the economy starts to recover. The COVID-19 crisis has inevitably pushed us further into a digital world and made us reconsider existing business models and ways of working.

CASE: BPP University masters the balancing act of change

BPP University has been very ambitious in its goals of e-assessment, but has also taken the time to do rigorous planning and development of the implementation project with gradual rollout milestones towards their 100% digitisation target.

Ishan Kolhatkar, Director of Group Educational Technologies at BPP University, explains: 'It's a careful balancing act between going too slowly and going too quickly. It's about finding a pace appropriate for your institution that moves you along. The default for most people is to want you to slow down because change is something they fear. You need to carefully consider the way you manage change by getting all stakeholders on board, making sure that you train people properly and that they understand what they're doing and are comfortable using the tool.'



In chapter 1, you identified your stakeholders. Now take a moment to consider if your stakeholders are likely to support your digital assessment project or not. Who are you most likely to get buy-in from?

In the box below, outline what you think would be the advantages for your stakeholders and what reservations they might have towards online assessment.

Stakeholder	Advantages	Reservations
1.		
2.		
3.		
4.		
5.		

Is online assessment secure?

Your stakeholders might have reservations about the security of online assessment. Is it really safe? The short answer is yes. With the right security measures in place, online assessment is safe and even offers a range of built-on opportunities that traditional means of assessment have not.

Any quality assessment requires security mechanisms at every stage of the assessment process. When *designing* new digital test forms, item production can be streamlined through robust item banking. And, to minimise cheating and exposure, items can be automatically assembled through data-driven test construction features or the random pulling of items.

When *delivering* digital assessments, security is maintained through a lock-down browser, which restricts access to local software and files and only allows access to whitelisted (online) resources. Combined with physical or online invigilation and a real-time monitoring toolbox, you'll be able to maintain the high standard of exam security that you need.

An increasing number of educational institutions worldwide are investigating remote highstakes digital exams as an alternative to traditional on-campus assessment. The **Inspera Remote Exam** allows students to sit secure and reliable digital exams using their own device and in their own homes. The add-on to the Inspera Safe Exam Browser offers a number of new and improved security features, such as identity verification, advanced monitoring, test session recordings, and integrity inspection.

Activity 3: What are the limitations of traditional assessment practice

Many courses have welcomed learning technologies and turned them into an integrated part of education. Some subjects are digital by nature, such as computer programming, while other subjects heavily depend on strong digital skills.

In the box below, summarise the subjects that you find it difficult to assess fairly with traditional means of testing.

1.			
2.			
3.			
4.			
5.			

To pilot, or not to pilot

Or: Why dipping or toe in the water can be beneficial before taking the deep dive.

One way of beginning your digital assessment journey is by piloting digital examinations for a select number of exams or departments. According to the Association for Project Management (APM), "...pilot projects and trials are a good way to reduce risk on projects that don't fit into a life cycle well understood by the implementing organisation."

It is recommended that institutions pilot online assessment before beginning a full rollout. A pilot project helps to trial the different processes in a controlled and managed environment. The lessons from these early-stage pilots can inform and direct the strategy for a wider adoption of digital examinations.

Defining the project background

The benefits of switching from pen and paper to digital assessment are numerous. However, it is important to identify which of these factors will be of the greatest benefit to your institution and the specific departments within. Identifying why you are switching, and the rewards that the transition will achieve is integral in both aligning the implementation strategy and gaining support from other stakeholders within the organisation.





Use the box below to define the project objectives and to list the key points.

Objectives	List of key points
Vision : The overall vision for the digital examinations project:	e.g Full-scale digitisation of the exam workflow.
Key drivers: The key drivers for implementing digital exams	e.g.The need for modernisation and improved exam workflows.
Faculty benefits: The key benefits for faculty are:	e.g Ease of marking clearly typed exam submissions.
Student benefits The key benefits for students are:	e.g.A more seamless experience for the students, due to using tools they are used to.
Risk : Potential obstacles or setbacks include:	e.g Infrastructure requirements.

FACT BOX: The benefits of digital exams for students with disabilities

Universities and awarding organisations will have a percentage of students with disabilities, many of whom will have difficulty handwriting their exams. Disability needs will typically be accommodated for through the provision of accessible exam arrangements (computer use, reader/writer, etc.).

Moving to a digital assessment platform enables some of these students to sit the exam without accessible exam arrangements. This development would further enhance the inclusivity of the institution; reduce exam-related stress for these students and ensure the focus of exams was on assessing students' knowledge and not their inability to handwrite. 'Inspera gave us some great everyday accessibility tools we needed', says Pernilla Svensson, ICT Coordinator and Systems Administrator at Lund Municipality, Sweden.

What are the pilot objectives

Now that you and your organisation have defined why you want to implement digital assessment, you can focus on the objectives of your pilot project. For most pilots, the main objective should be to test the organisations' ability to transfer to a digital assessment process. Piloting is really less about technology and more about people and change. To test the benefits of and readiness of the organisation against a digitalisation of exams processes should, therefore, be essential to the pilot project.

With that in mind, a recommendation for a pilot is not to trial all assessment formats, but to start with the basics: essays and multiple-choice, for instance. Your internal IT department can check the tech abilities and stress-test the platform.

To summarise, the overarching objective of the first pilot is for your institution to successfully host a series of digital assessments for a small number of exams and subjects. The pilot can be seen as a test environment to understand the benefits and areas needed for improvement when going forward.

The following principles underpin a first successful pilot:

- All project team members are clear about how the pilot will be rolled out and their respective role in delivering the outcomes
- The pilot is to inform the university on how to proceed with a wider rollout
- All impacted stakeholders are informed and understand the change relative to their role and can deliver the expected outcomes
- To have clearly defined exam and technical protocols in place for the pilot and agreed by key stakeholders.

Activity 5: Defining the pilot scope

It is important to begin by defining the intended scope of the first pilot. Use the box below to outline the project scope. It's a good idea to set up a project team workshop, where together, you can establish what is and is not to be included within this first outing with digital assessment.

In scope for Pilot 1	Out of scope for Pilot 1
E.g. Exams (create questions / create exams, load content, review & approve, conduct exam, mark & moderate)	E.g. Changes to the exam process

Activity 6: Defining the pilot success criteria

At this time, the project team should also define the success criteria of the first pilot, including the affected stakeholders and factors that will be used to measure the extent of this success.

Stakeholder	Success criteria	Determined by:	Target Pilot #
E.g. Academic Staff	Digital exams will reduce marking time for academic staff and consequently	Obtaining base-line measurements for marking paper-based exams.	
	reduce workload and workload related stress.	Measuring the time taken by Academic staff to mark similar papers entered digitally on the pilot.	
		Feedback from academic staff.	

Establish the requirements for digital exams at your institution

At the beginning of the project, it is of great value to conduct interviews with members of the project team and other stakeholders to gain an understanding of the current exam process. Who does what, when, and for how long? What are the hand-off points? Ask your key interest groups to provide feedback and to help identify both functional and non-functional requirements.

The requirements can be established by asking the question, "what should a digital exam do to improve the exam experience for each stakeholder group?"



This question can be broken down into further sub-question, such as:

- What works well and should the university do more frequently?
- What does the university need to do better, i.e. improve the quality?
- What new things should the university do, either by rethinking the method or approach?
- What should the university stop doing or cut back on?

Access to digital exam case studies, presentations, and contacts with specialist knowledge can also inform the gathering of requirements and the project approach.

Requirements can be prioritised by the project team and assigned as either:

- Must Have
- Should Have
- Could Have
- Won't Have (for Pilot 1)

The intention at this stage is to deliver all requirements assigned as Must, Should or Could.



Use the box below to create an overview of the requirements with the status Must Have.

Requirement	Notes
E.g. Data already entered by a student when answering a question is not lost (e.g. such as device failure, network failure or power failure).	Reliability - Recovery point objective as close to zero as feasible.

How to select the right courses for your first pilot

The correct courses should be selected for the first digital examination pilots. Amongst other factors, it is recommended that the university takes into account the following criteria when determining which courses are to be selected for the pilot.

Course Selection Criteria

- Select a small number of courses/exams for these early pilots.
- Limit student numbers for initial trials. Recommended enrolment of up to 150 students per course.
- Allow a minimum of 20 students to allow for accurate evaluation.
- Define which question types you intend to include in these early stages relevance of question types is dependent on your department and subject field. The examination is to comprise of essays and/or short answer style questions.
- The course coordinator must be IT confident.
- Advisable that the lecturer has taught the same course in a previous year (required for base metric information).
- Advised for one or more courses to have multiple markers in order to evaluate the different grading workflows.
- Students are automatically opted in; individual students can request to opt-out.
- Students will have the opportunity to do mock exams as a familiarisation exercise.

The following table demonstrates the key areas for consideration when selecting the right courses for digital examination pilots:

Criteria	Selection
Suitable departments:	
Suitable courses:	
Suitable exam types:	
Max and min number of students per exam:	
Suitable Course Coordinators	
Other:	

• **CASE:** A one-year trial was a valuable exploration of e-assessment for the University of Bath

The University of Bath started considering digital examinations solutions in 2016. While some testing was completed previously using MCQ quizzes within the VLE (Moodle), it was determined that there was a need to utilise the funding to trial a more robust, efficient, and purpose-built assessment solution. The University decided to conduct a pilot project to explore and understand the future considerations so to scale the initiative.

The overall aim of the one-year digital assessment pilot was to trial and evaluate the digital examination solution across different University departments, including the support requirements, user experience and the capabilities of technology, in a variety of examination conditions.

'There are many advantages of the system: better security, easier authoring, lower paper and production costs or costs to the environment, and very few disadvantages. We recognised the potential from the beginning, but actually going through the motions ourselves gives us a clearer idea of what is needed going forward. Now we must take stock of what we've got, what we need to do, and how to best position ourselves if we want this to work on a larger scale', says Dr Donald Lancaster, Director of Studies for Executive MBA, University of Bath.

Love me tender, love me true

Or: Why procurement isn't always the perfect love story.

Let us be honest. A tender is often a time-consuming, complex, and, from time to time, even frustrating process. When your organisation has decided to implement a digital examination solution, you undoubtedly face a journey through the land of procurement. But does it really have to be a rough road to travel?

The importance of doing market research

The most important thing about market research is, basically, to carry it out. At an early stage, you can browse online channels – the most obvious ones being Google and YouTube. Visit different vendors' websites, subscribe to demos and webinars, and compare functionality, design, and cases, before you start sketching your requirements.

Identify institutions and municipalities in your country who have already implemented digital assessment. Reach out to institutions similar to your own and ask them about their experiences. Engage in local or national IT networks and join the discussion.



As part of your market research, identify three institutions, like your own, who have already piloted or implemented digital assessment. You can browse through our **customer stories** for inspiration. Once you have some names on your list, make sure to contact them and ask them how they have handled the transition to online assessment.

- 1.
- 2.
- 3.

Framework agreements are cost savers

A tendering process can be complicated and could cut into your resources. Framework agreements save you the time and cost of a sourcing process as they abolish the need to renegotiate standard terms and conditions.

If a framework agreement exists, you should enter into a discussion with the framework holders. Call offs can be awarded any time up to the end of the framework agreement. Once the work has started the call off can continue beyond the period of the agreement until the work is done. There are several benefits connected with the use of framework agreements, the most important ones being:

- Predictability: The terms of engagement are already agreed
- Speed: No need to undertake a costly and time-consuming full procurement process
- Flexibility: Retain the benefits offered under the collaborative agreement while refining your requirements further
- Cost-saving: The contractual infrastructure of framework agreements almost invariably drives down costs

FACT BOX: Inspera Assessment and framework agreements

Inspera is on a number of framework agreements in Europe.

- G-Cloud 11/12 (UK)
- Uninett (Norway)
- SKL Kommentus (Sweden)
- Local Software Asset Management agreements talk to your IT manager for further information

Be the king of requirements

Start by identifying *the problem* you want to solve and then ask for *the solution*. You have already done your market research, so now is the time to go through old requirements, documents, and technical specifications. Reach out to benchmark organisations and ask if you could use their documentation for inspiration.

When establishing your requirements, you should focus on what is suitable, relevant, and connected to the solution. Label the requirements with Must, Should, or Could, and make sure you cover every aspect of your institution's assessment needs. Carrying out institution-wide

consultations with key interest groups can be a great way to identify both functional and non-functional requirements. You can read more about how to establish the requirements for digital exams at your institution in chapter 4.

A focused user group in the hand is worth two in the bush

As part of your procurement process, you should form a small and relevant user group within your organisation. By involving your stakeholders from the very beginning, you make sure you identify and cover their needs and requirements.

We recommend that at this early stage, your user group or reference group should only consist of 4-6 people who have volunteered to be actively involved and invested in the project. Your user group could consist of 1-2 representatives from the academic staff, 1-2 people from the IT department, an ICT-professional, and 1 or 2 students.





Who would you like to join your user group or reference group? Write down the names of the members In the box below. Remember that it should be optional to be part of the project. Make sure to cover as many stakeholder groups as possible:

Stakeholders	Names:
Academic staff	-
	-
IT department	-
	-
ICT	-
	-
Student(s)	-
	_

You are buying more than just software

If you decide to go into tendering (e.g. if a framework agreement isn't available), you should keep in mind to evaluate more than just the requirements. The implementation of a digital assessment platform is a business-critical change management process, and you are ultimately buying much more than a software solution. When you are shortlisting the vendors most likely to meet the needs of your institution, you should also base your score on:

- Capacity
- Experience
- References
- Demonstration
- Complexity

It's important to find a vendor with the necessary expertise to ensure a successful organisation-wide implementation and rollout. When asking for references, make sure they are relevant and similar to the needs of your institution. Ask for several references and make sure to evaluate and score them based on their financial and organisational complexity. Always follow up and call the contact persons at the benchmark institutions.

Since you are likely to enter into a long-term relationship with your vendor, you should make sure to find the right match from the start. The people you are going to be working with is equally important to the project as the technology itself.

There is no 'I' in team

Or: Why establishing the right team from the beginning is crucial to your success.

To accomplish a successful implementation project, it is essential to establish the right team from the start to involve all stakeholders. It is recommended that the following areas should be covered:

- a project team
- a reference group for the project
- a superuser group
- a steering group/committee

The time required from the people involved will, of course, depend on the scope of the project. Is your pilot a part of a bigger rollout plan or is it just testing on a very limited scale?

Project team

The project team should include representatives from all departments in order to cover all the requirements and needs of the project. The members of the project team should have a dedicated role in the project. You should include:

- Project manager
- Staff working in different parts of the organisation
- Administration/Exam office
- Representatives that cover the needs of:
 - Graders/markers
 - Invigilators
- IT department



Reference group

The reference group should contain staff members and students that will be able to test and comment on the processes and the product throughout the project. For further information about who to include in the reference group, see chapter 4.

Superuser group

The superuser group should include those you are planning to involve during the project, e.g. authors and markers. The group members will also be trainers for the rest of the users in your organisation. It is common to have some overlap between the members of the project team and the superuser group. You could include:

- Staff working in different parts of the organisation
- Administration/Exam office
- Graders
- Invigilators
- IT department

FACT BOX: Train the trainer concept

Inspera uses the 'train the trainer concept'. We help you establish a group of superusers with good knowledge of Inspera Assessment and the different possibilities within the tool. The superuser group should be your first line of support for questions related to Inspera Assessment. The group needs participants that can take responsibility to continually train new users in your organisation.

Steering group/committee

The project members should be able to raise important decisions and risks to the steering group/committee. This way, any issues can be resolved quickly, allowing the project to progress in a timely manner. You should include:

- Decision-makers
 - Representatives from management
- Representatives from the teachers/staff involved
- End-user representatives (students/candidates)

The project manager should report to the steering group.

Communicating the benefits of online assessments

The move to online assessment leads to transformation and new opportunities for every student and staff member involved in the exam process. Communicating the benefits and implications of online assessments is important when setting up your team. Below, you can read more about how the transition affects your different stakeholders and which benefits you can highlight. For more about change management, see chapter 6.

Test-taker: Fair assessment for everyone

Exam day is the test-taker's time to shine. Learners can edit, navigate, and demonstrate their skills in a user-friendly interface. They can feel confident using their own computer or device, which they are already familiar with. When sitting a digital exam, test-takers enter a paperless flow where assignments and papers are handled with a mere click at a button.

In on-screen marking, the quality checks are less subject to bias. Test-takers won't be evaluated on their handwriting, and their work is automatically backed up – even if they lose power or internet connection. Students with disabilities will have a range of built-in accessibility functions made available, ensuring a barrierless examination.

Marker: Testing made smarter

Digital exams are much more than just putting existing tests online. Markers can personalise and differentiate learning and exam content for their test-takers. They have a range of possibilities to create interactive exams, e.g. by embedding video, audio and/or drawing. The platform enables markers to design the best possible tests based on learning analytics.

Auto-marking of selected items frees up time for markers to focus on manual marking and feedback. Plagiarism control ensures that cheating is detected and protects the integrity of the assessments. Collaboration is made easy in marking teams, and academics can create and grade exams online wherever and whenever it suits them.

CASE: The University of Oslo focused on communication

Throughout their digital assessment project, the University of Oslo has prioritised close communication with the faculties, which is also being maintained now that the project has moved into its operational phase. The university management has not drafted specific policies for required adoption rates, and the faculty deans have taken the role of enthusiastic promoters.

'Our experience with the introduction of digital examinations has been a success. This may be because it was neither a so-called top-down or bottom-up process, but the result of the simultaneous coming together of wishes from various partners,' says section manager Anne-Lise Lande, UiO.

It was important to manage user expectations of the system during the course of its functionality development. Therefore, Inspera was involved in the delivery of the communications plan, so that the information flow among stakeholders was managed effectively.

Administrator: With the click of a button

An assessment platform provides administrators with an all-in-one tool for managing and coordinating all tasks related to exams. They can configure and use templates to simplify the exam set-up and easily distribute complete tests across the entire organisation.

No more physical handling of papers makes the exam process both quicker and more secure, and the integrity of the assessments is always protected with plagiarism control and online proctoring. The risk of losing a paper is practically eliminated, and online distribution of tests dramatically decrease the students' waiting time for exam results.

Learning Technologist: We are in this together

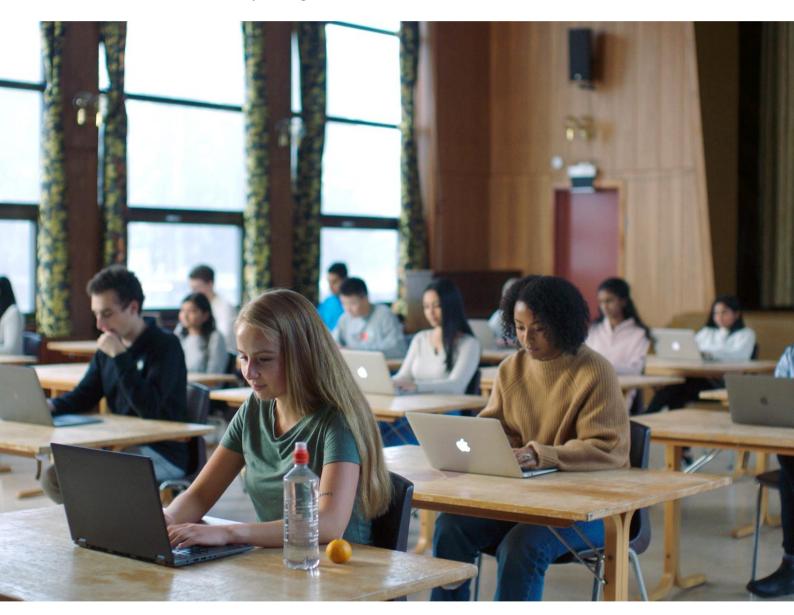
We know the importance of 'pedagogy before technology', and have designed a platform that corresponds to that philosophy. Learning technologists are invited to be actively involved in researching, managing, and supporting the use of digital assessment at their institution. Security is crucial, and a safe and secure infrastructure of an institutions e-assessment set-up is a top priority.

Learning technologists' expertise in both learning technologies and learning design allows them to identify and communicate the benefits of digital assessment to their colleagues, and they, therefore, play an important role in supporting colleagues throughout the transition process.

Management: Attract and retain students

Digital assessment is part of offering students a modern education and letting test-takers gain the qualifications that ensure a high level of employability. Management can achieve higher student engagement and satisfaction by providing a fulfilling learning and assessment experience.

An assessment platform enables educational staff to administer and develop exams securely while focusing on their core tasks instead of spending time on logistics. Furthermore, digital exams have a positive environmental impact on paper reduction and support many universities' sustainability strategies.





It's all about people

Or: Why change has a bad reputation, and how you can learn to love it anyway.

Implementing digital assessment is essentially about people, not technology, and the implementation should be seen as a business-critical change management process. Change can be driven by both problems and opportunities. Moving assessment online is a big change for everyone involved, and you need to analyse whether your organisation will be motivated by current discomfort or future challenges. Perhaps many of your stakeholders are quite content with the way things are. Are they motivated for change? What could make them commit to the transition?

If initiatives for change come too late, you'll be left with not much runway. If you start too early, it can be hard to get your stakeholders to see the urgency. No matter what, having a holistic approach to the project and testing the process, as well as the product, will make a huge difference.

The importance of anchoring in management and organisation

Like any other change management process, it is essential that the project is anchored within the management of the organisation. It is equally important to involve all stakeholders from all relevant organisational units.

In some cases, a digital examinations project is driven directly by management as a strategic project. If that is the case, the project manager needs only to report diligently to the management throughout the project to ensure consistently anchoring.

In other cases, the project is driven by early adopters in the organisation, such as teachers, exam administrative units, or learning technologist units. In these cases, the project manager will need to ensure anchoring and buy-in from management to ensure the success of the change.

CASE: Victoria University of Wellington found that change management was integral to their assessment project

Academics, students, and administrative staff, as well as crucial IT and logistics personnel, have all played invaluable roles in making the University's digital exam pilot a true success.

For example, Victoria University of Wellington's change programme included regular and informative communications with student association representatives. The project team engaged with students throughout the pilot to ensure that they are familiar with the digital exam process and software.

All students were asked to complete a technical survey to ensure that their laptops were 'fit-for-purpose'. They could also attend laptop clinics during the trimester for IT help and could complete a mock exam and demos to trial the software. The University also offered students drop-in sessions to resolve any last-minute concerns.

How to activate and engage your different stakeholders

There are various means to ensure anchoring and maintenance of management ownership to the digital examinations project.

- awareness activities
- steering group reports
- evaluation report

Awareness

General awareness and project communication activities are important tools to make the management accept and support the digital examinations project. The project owner should consider:

 to create a web page dedicated to communicating the project to students and staff with regular updates of the progress. The web page could link to Inspera's introduction and awareness videos or any other communication materials created by the project team. • to set up an initial meeting after the project kick-off with relevant members of management. At the meeting, the members should discuss the project goals, success criteria, and project plans - and how to align these with the organisation's overall strategies.

Steering group reports

Regular reports from the steering group to the management will increase the transparency of the project activities and increase anchoring with management.

Evaluation report

The evaluation report of the implementation project should ideally be based on inputs from the management. The report should ensure clarity and organisational alignment on the objectives of the transition to digital examinations.

The project manager/project owner should schedule an evaluation meeting with the management early on in the project. Early involvement of the management is important because it sends out the signal that the project will be reported on professionally and that the management's attention will be required.



Which awareness and project communication activities would you like to include in your project? It's important to give your stakeholders the opportunity to explore and provide feedback on the potential online assessment solution. Make sure to cover as many stakeholder groups as possible:

Stakeholders	Activities
E.g. academic staff	-
	-
E.g. students	-
	-
	-
	-
	-
	-



Plan your implementation

Or: How to implement and rollout your digital assessment project.

Thorough preliminary work is the base you build your implementation upon. We are happy to see that you made it to chapter 7. That means you are now ready to learn more about the "dos" and "hows" of implementing digital assessment. If you are reading ahead, we recommend that you go back to chapter 3 to identify why you are switching to online assessment and to outline the rewards that the transition will achieve.

The information provided here serves as an overall guideline, but it will be necessary to make amendments to align with your institution's specific strategic aims and practical requirements.

Where and how will the digital exam take place?

A number of practical considerations will need to be considered when planning for a potential digital examination project. Where will the assessment take place, which devices will be used, and how can the student experience be optimised? It is important to establish key objectives and possibilities in these early stages.

Identifying suitable venues

The nature of exams, campuses, and types of students will dictate suitable exam locations. It is often advisable to run early-stage pilots on campus and in rigorously controlled conditions to best control and monitor the process.

However, recent events have forced a change in the way educational institutions can teach and assess their learners. Institutions around the world have to adapt the way they work to support remote learning and home exams. If you are looking for alternative assessment methods such as home-based testing, you can take a look at the **Inspera Remote Exam**.

If the situation allows it, we would still recommend running the first pilots on campus. Some of the following requirements should be taken into account when identifying if there are already suitable venues available on university campuses.

The profile for a digital exam space includes, but are not limited to:

Requirement	Notes
E.g. Power Banks:	At the desk or close by to mitigate risks of depending solely on battery power.
Wi-Fi:	Needs to be reliable with sufficient capacity for high volume and with multiple sources.
Invigilator Space:	Ease of access for invigilators to walk around and get access to students.
Privacy:	lack of distraction from other students or outside events.
Other:	

What is your device strategy: University-owned or BYOD?

What devices students will use to sit their exams should be established early on. It is most often recommended that universities adopt a Bring Your Own Device (BYOD) policy. BYOD refers to the practice of students using their personal devices for educational purposes – e.g. an exam.

In regards to some of the advantages of using BYOD in education, nowadays, most of the students already have a device that they can bring to the institution for the exam day. In this way, they will be able to carry out the exam on a laptop or a similar device that they are familiar with. It reduces the risk associated with the use of unfamiliar technology, which is especially prevalent under time pressure conditions of an exam.

Furthermore, BYOD reduces costs associated with the project as it removes the need for the institution to supply devices for each individual test-taker. Institutions may already have their own computer labs that may provide suitable for early pilots with low volume, yet it is important to consider if this is scalable for large numbers of test-takers. There are instances of universities adopting a computer lab strategy where large numbers of university-held computers are maintained for exam purposes, and this is a decision that will need to be taken further down the line.

CASE: Kozminski University brings BYOD exams to new heights

CASE: Kozminski University brings BYOD's exams to new heights

As a result of strong demand from the faculty staff, Kozminski University in Warsaw, Poland, invested in three highly modern auditoriums suitable for Bring Your Own Device (BYOD) exams and classes.

'An exam can be stressful, so we really want our students to be as comfortable as possible. With BYOD, the students can carry out their exam on a personal computer which they are familiar with. It makes them feel more confident about themselves and the exam situation. Eventually, it is likely they will perform better and spend less time on practicalities,' says Valeriia Gorlushko, Head of EdTech Centre at Kozminski University.

With BYOD it was easy to scale up the number of students who could sit an exam on the same day even though the University couldn't provide all of them with a computer. Another obvious benefit for the University is that it will spend fewer resources on hardware and maintenance in the future when students bring their own computers to the exam rooms.

Risks of BYOD

The risks associated with a BYOD strategy should be considered, as there are actions which need to be implemented to prevent issues in regards to academic integrity, loss of power, or unsuitable student-owned devices. Potential issues could result in students having to switch from computer to paper or from their own device to a university-owned computer, midway through the exam. The workflow of the exam is impacted by such contingencies since you likely have to allow more time for the student, match up multiple parts of the student's submission, and/or provide additional supervision.

These risks can be mitigated by:

- 1. Power and Wi-Fi Infrastructure in place at the selected venue.
- 2. Level of familiarisation and training offered to students and exam staff.
- 3. Use of a secure locked-down browser.
- **4.** Provisioning a 10% university computer capacity as standby and support if for any reason the student laptop has any issues.
- **5.** Preparing invigilators beforehand, providing FAQ's to resolve minor questions or problems.



Activity 11:

Identify your project risks

It is important to identify potential risks that might be encountered during the project in order to adapt the project strategy accordingly and mitigate against those risks. The primary risks identified for the project are:

Risk	Risk description	Mitigation
E.g. Appropriate professional staff support cannot be provided due to lack of skills, time, and resources.	If appropriate professional staff support such as: Student and Academic Services, Information and Communication Technology resources, and professional administrative support for academics cannot be provided to the project due to lack of skills, time, and resources.	SLT mandate for support to be provided by central services for this project. The inclusion of representatives from key areas in the initial project team to facilitate skills identification, planning, and management of resources.

Risk assessment

A risk assessment of the project should be done as early as possible to define potential risks and plan accordingly and should be reassessed frequently during the project.

A risk assessment should assess:

- The implementation project (project goals, progress etc.)
- Inspera Assessment (the system and functionality)
- Infrastructure (IT, capacity, facilities etc.)

Many projects have a template for performing a risk analysis - two of the more common techniques used are a SWOT-analysis or a Facilitated Risk Analysis Process (FRAP). The point is to Identify (or Avoid) risk, Estimate the likelihood of an identified risk happening, Prepare to manage risks, and of course, monitor activities/risks throughout the project.

Summary

Or: 7 tips for a successful transition to online exams

Assessments are business-critical for educational institutions, and it is with good reason that adopting new modes of testing needs careful consideration. Validating knowledge and mentoring students, so that they can learn and internalise complex subjects, is at the very core of what educational institutions have to offer. Online assessment can strengthen the unique position educational institutions hold by providing a secure, scalable, and reliable platform for applying knowledge and assessing student's abilities.

EdTech plays an important role in the transformation of learners and workforces to propel innovation and growth. If you are ready to digitally transform your institution and provide services that are fit for the future, we give you 7 tips to get you started with online assessment:

- 1. Do proper market research. Make sure to contact institutions similar to your own and ask them about how they have handled the transition to online assessment.
- 2. Investigate if a framework agreement exists. It can save you the time and cost of a sourcing process.
- **3.** Consider running a pilot project. Use the lessons learned from these early-stage trials to inform and direct the strategy for wider adoption of digital examinations.
- 4. Identify why you are switching to online assessment. Defining the project background is integral in both aligning the implementation strategy and gaining support from your stakeholders.
- 5. Make sure that the project is anchored within the management of your organisation. You need their buy-in to ensure the success of the change.
- **6.** Involve all stakeholders from the start. Implementing digital assessment is essentially about people, not technology.
- **7.** Do thorough preliminary work prior to your implementation. Risk assessment is part of a well-planned project.

We are here to help institutions around the world as more assessments are moving online. Please **contact us** if you have any questions. Thanks for reading this eBook and congratulations on the start of your journey to digital assessment!

About Inspera Assessment

Or: How we can help you embark upon your online assessment journey

Founded in 1999 and based in Oslo, we are a dedicated team of more than 90 EdTech entrepreneurs on a mission to impact education on a global scale. Together, with our customers, we want to reinvent educational assessment.

Inspera Assessment was created on the belief that online assessment should enable every test-taker to prove their skills in a fair, valid, and reliable way. We empower governments, awarding organisations, universities, municipalities, and schools to deliver secure, standardised tests, open- and closed-book exams, as well as formative and diagnostics tests.

INSPERA IN NUMBERS







2.6M+

submissions delivered in 2020

160+

countries with end-users

91M+

sheets of paper saved

130+

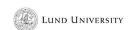
EdTech enthusiasts working together

TRUSTED BY WORLD-CLASS EDUCATION INSTITUTIONS













Global

with a Scandinavian approach

Scandinavian pedagogy is part of our DNA. From the outset, we have understood that digital assessment is not just about getting rid of pen, paper, and handwriting. Digital assessment is the bridge between school, work, and active citizenship. It secures alignment between the tools used in everyday teaching and evaluations, and those test-takers will be using in their professional life.

We are proud to have a team which spans the globe, with close to 70% international staff. Their diverse knowledge and experience give us the expertise to work with educational institutions across the world.

Why choose Inspera?

We offer the most innovative, reliable and secure online assessment platform, accompanied with the necessary expertise to ensure successful organisation-wide implementation and rollout.

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